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

DATE: Wednesday, August 12, 2020 MEETING TIME: 1:30 p.m. **IN KEEPING WITH GOVERNOR NEWSOMS EXECUTIVE ORDERS N-29-20 AND** N-35-20, THE TECHNICAL ADVISORY COMMITTEE MEETING WILL BE CONDUCTED BY **TELECONFERENCE AND WILL NOT BE HELD IN THE MONTEREY ONE WATER OFFICES.** YOU MAY ATTEND AND PARTICIPATE IN THE MEETING AS FOLLOWS: JOIN FROM A PC, MAC, IPAD, IPHONE OR ANDROID DEVICE (NOTE: ZOOM APP MAY NEED TO BE DOWNLOADED FOR SAFARI OR OTHER BROWSERS PRIOR TO LINKING) BY GOING TO THIS WEB ADDRESS: https://us02web.zoom.us/j/84533055581? pwd=YS9manRUQ0RDZUVGRGVQNHBTSFdJZz09 If joining the meeting by phone, dial either of these numbers: +1 408 638 0968 US (San Jose) +1 669 900 6833 US (San Jose) If you encounter problems joining the meeting using the link above, you may join from your Zoom screen using the following information: Meeting ID: 845 3305 5581 **Password: 795572 OFFICERS Chairperson: Jon Lear, MPWMD** Vice-Chairperson: Tamara Voss, MCWRA **MEMBERS California American Water Company City of Del Rey Oaks** City of **Monterey City of Sand City City of Seaside Coastal Subarea Landowners** Laguna Seca Property Owners **Monterey County Water Resources** Agency **Monterey Peninsula Water Management District**

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The next regular meeting is tentatively planned to be held on Wednesday November 18, 2020 at 1:30 p.m. That meeting will likely also be held via teleconference.	

MEETING DATE:	August 12, 2020
AGENDA ITEM:	2.A
AGENDA TITLE:	Approve Minutes from the July 8, 2020 Meeting
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

Draft Minutes from this meeting was emailed to all TAC members. Any changes requested by TAC members have been included in the attached version.

ATTACHMENTS:	Minutes from this meeting
RECOMMENDED ACTION:	Approve the minutes

D-R-A-F-T MINUTES

Seaside Groundwater Basin Watermaster Technical Advisory Committee Meeting July 8, 2020 (Meeting Held Using Zoom Conferencing)

Attendees: TAC Members

City of Seaside – Scott Ottmar California American Water – Tim O'Halloran City of Monterey – Tom Harty and Max Reiser Laguna Seca Property Owners – Wes Leith MPWMD – Jon Lear (joined at 1:58 p.m.) MCWRA – Tamara Voss City of Del Rey Oaks – John Gaglioti (departed at 2:32 p.m.) City of Sand City – Leon Gomez Coastal Subarea Landowners – No Representative

Watermaster

Technical Program Manager - Robert Jaques Administrative Officer – Laura Paxton

Consultants

None

Others None

The meeting was convened at 1:39 p.m. after resolving Zoom log-in problems and a quorum was established.

1. Public Comments

There were no public comments.

2. Administrative Matters:

A.Approve Minutes from the June 10, 2020 Meeting

On a motion by Mr. Gaglioti, seconded by Mr. O'Halloran, the minutes were unanimously approved as presented.

B.Sustainable Groundwater Management Act (SGMA) Update

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

C.Formation of Seaside Water Quality and Operations Committee

Mr. Jaques summarized the agenda packet materials for this item. Ms. Voss asked when the first meeting of this committee was scheduled for, and Mr. Jaques responded it was scheduled for 3:00 PM on Wednesday, August 12 to coincide approximately with the end of the Watermaster TAC meeting on that same date. There was no other discussion.

D.Draft EIR for Potential Acquisition of Monterey Water Supply and District Boundary Adjustment Project

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

3. Continued Discussion of Possibly Modeling Certain Scenarios Related to the Monterey Peninsula Water Supply Project and an Expansion of the Pure Water Monterey Project Mr. Jaques summarized the agenda packet materials for this item. Mr. Gaglioti noted that water supply and demand figures affect groundwater levels under any of the scenarios. He noted that the basin will either need to reduce its pumping by on the order of 1,000 acre-feet per year, or add approximately 1,000 acre-feet per year of additional recharge water that is left in the basin, in order to achieve protective water levels.

In response to a question from Mr. Gaglioti, Mr. Jaques said that the vadose zone wells are only expected to inject about 30% of the Pure Water Monterey Project water. There is much less production pumping in the Paso Robles aquifer, which the vadose zone wells are intended to recharge. In order to raise groundwater levels, it would be better to recharge into the Santa Margarita aquifer using the deep injection wells.

Mr. Lear said that injection is more effective in the Northern Coastal Subarea because of the aquifer properties in that area and the proximity to most of the large production wells.

Mr. O'Halloran commented that this information shows how delicate the situation is-it would take 25 years at approximately 1,000 acre-feet per year to protect the basin.

Mr. Lear said that in addition to Cal Am's 700 acre-feet per year of in-lieu recharge, approximately 1,000 acre-feet per year of additional recharge would be necessary to protect the basin. He also noted that after reaching protective levels, ongoing recharge would be needed in perpetuity to maintain groundwater levels at or above protective elevations.

Mr. Gaglioti said that he felt this was good information to present to the Board. He made a motion to present the full TAC agenda packet material on this item to the Board at an upcoming meeting. The motion was seconded by Ms. Voss and unanimously approved.

4. Initial Discussion Regarding Scope of Work for Monitoring and Management Program (M&MP) for FY 2021

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

Mr. Gaglioti said he concurred with the Draft 2021 Monitoring and Management Program as presented in the agenda packet. Mr. O'Halloran said he too concurred, as did Ms. Voss.

Ms. Voss also said she wanted to make sure that the Watermaster did not lose sight of the BMAP's Recommendation No. 2 with regard to groundwater modeling to determine a combination of management actions and supplemental supply projects that achieve protective groundwater elevations. That work could be done in conjunction with developing the Sustainable Yield of the basin. Mr. Jaques said he would highlight that issue in his agenda transmittal to the Board, when it goes to the Board for approval.

A motion was made by Mr. Gaglioti, seconded by Mr. O'Halloran, to approve all of the proposed revisions contained in the agenda packet, and to present the final version of the 2021 Monitoring and Management Program to the TAC for approval at the August meeting, and to present it to the Board for approval in October.

5. Schedule

Mr. Jaques reported that he would have the final 2021 Monitoring and Management Program on the TAC's August meeting agenda for approval, but would be deferring presenting the proposed budgets

in support of the Monitoring and Management Program until the September TAC meeting in order to allow time to get input from the Watermaster's consultants and contractors.

6. Other Business

There was no other business.

The meeting adjourned at 2:35 PM.

MEETING DATE:	August 12, 2020
AGENDA ITEM:	2.B
AGENDA TITLE:	Sustainable Groundwater Management Act (SGMA) Update
PREPARED BY:	Robert Jaques, Technical Program Manager

At the State level:

Since my last update, I have not received any new materials from the State that would impact the Watermaster.

At the Monterey County level:

The Monterey Subbasin GSP Committee met via Zoom on July 7, 2020 and again on July 17 (because the July 7 meeting ran too long to complete all the agenda items). Most of the topics discussed were organizational and procedural matters and background information. However, these are some of the topics which may be of interest to the TAC:

- Sarah Hargrave, who is representing County Supervisor Mary Adams' office, was elected as Chair of this committee and Patrick Breen of MCWD was elected as Vice Chair. I was nominated for the Vice Chair position but declined because I felt it would be better for someone who is representing constituents within the Corral de Tierra subarea to be in the officer positions of this committee.
- Meetings of the committee will be held every other month on the first Friday from 10 AM until noon. The next regular meeting will be on Friday September 4th.
- Thus far no draft chapters of this GSP have been completed and are therefore not yet available for committee members to review. They expect they will be coming out soon, but did not give any specific date.
- Patrick Breen said that MCWDGSA will have its own stakeholder outreach program and will probably have a similar type of committee.
- The Watermaster's PowerPoint presentation to the committee is tentatively scheduled for the September meeting. I will be making that presentation jointly with Georgina King of Montgomery and Associates.
- Derrik Williams reported that data gaps in the eastern portion of the former Fort Ord part of the Monterey Subbasin and in the Corral de Tierra area exist. They will need to try to fill in those data gaps after the GSP is in the implementation phase.
- Mr. Williams went through each of the six Sustainable Management Criteria which include subsidence, surface water depletion, groundwater elevations, change in storage, sea water intrusion, and water quality.
- In regard to groundwater elevations, Mr. Williams reported that:
 - Groundwater levels in the Corral de Tierra area have been generally dropping in a longterm trend. They will need to determine what groundwater elevations they should try to sustain. The Laguna Seca Subarea is showing similar groundwater level declines.
 - DWR looks at an entire basin for sustainability, and if any area of the basin is unsustainable, then the GSP would be unacceptable to DWR.

AGENDA IT	'EM:	2.B (Continued)
0	from, they will p monitoring netw monitoring wells so it will be nece locations where	enough existing wells to obtain groundwater level and production data probably need to construct additional monitoring wells to add to their rork. There is a separate grant program that provides money to put in s. However, getting grant money for that purpose requires justification, essary to have assessed the area sufficiently to clearly identify the new monitoring wells would be needed. This is most likely going to be e GSP has been approved by DWR and is in the early implementation
0	There is some w good minimum t	rell data available in the Corral de Tierra area, but not enough to develop thresholds
0	Wells that produ and cannot be re devices. Howeve	acce less than 2 acre-feet per year are defined as "de minimis" by SGMA equired to provide data or install meters or groundwater level monitoring er, they could be approached to voluntarily provide data if they have it. I allow others to pay to install such devices were meters.
0	underestimated,	at the production data for the Corral de Tierra area is currently because there are so many de minimis wells for which there is currently ata. This will need to be addressed early in the implementation of the
0	•	require that the Corral de Tierra area pump no more than its I. The sustainable yield will be developed as part of the GSP.
0	Arsenic has been data about that w	n a water quality problem in some wells in the Corral de Tierra area, and vill need to be obtained to develop the Sustainable Management Criteria A GSP cannot cause degradation of water quality, but may not have to
0	develop the Sust need to determin	rios will be run during the GSP development process in order to help tainable Management Criteria. In conjunction with modeling, they will be how to resolve any conflicts between the Seaside Basin Groundwater balinas Valley Integrated Hydrogeologic model.
GSP committ	ee members in the	workshops will be held via Zoom in July and August to aid subbasin e development of the GSP's. I will only attend those which I feel will nterest to the Watermaster.
was held via	Zoom on July 27.	Group has started having monthly meetings. The most recent meeting The topics discussed were ongoing organizational and groundwork rect impact on the Seaside Basin or the Watermaster.
The Advisory	Committee of the	e Salinas Valley Basin Groundwater Sustainability Agency met via

The Advisory Committee of the Salinas Valley Basin Groundwater Sustainability Agency met via Zoom on July 15, 2020. None of the topics discussed had a direct impact on the Seaside Basin or the Watermaster.

ATTACHMENTS:	None
RECOMMENDED ACTION:	None required – information only

MEETING DATE:	August 12, 2020
AGENDA ITEM:	3
AGENDA TITLE:	Approve the Monitoring and Management Program (M&MP) for FY 2021
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

A Preliminary version of the FY 2021 M&MP was reviewed and discussed with the TAC at its July 8, 2020 meeting. There were no revisions from the Preliminary version, since the TAC did not request any revisions at the July 8th meeting, and none of our consultants requested any changes.

The dollar amounts reflect input received from our consultants and contractors.

On a related matter, in 2009 the Watermaster constructed two new Sentinel Well at the Camp Huffman BLM location in the Northern Inland Subarea. They were constructed because there were no wells in that portion of the Seaside Basin, and installing monitoring wells there would provide additional data to use in the Seaside Basin Groundwater Model and for basin management purposes. The hydrogeologist who oversaw construction of the wells, Martin Feeney, recommended that the wells initially be tested annually for water quality for several years for to establish baseline water quality characteristics for that location. Once that had been done, since the wells are far inland from the coastline and far from production wells, he recommended reducing the frequency of water quality monitoring to approximately once every five years.

In its 2014 Annual Report, the Watermaster discussed this and proposed reducing the sampling frequency to once every three years to continue providing water quality data from this location. I consulted with Georgina King of Montgomery and Associates for her thoughts on reducing the sampling frequency. She responded that we now have four sets of annual samples from each of these wells, and the data for those samples are similar, demonstrating that we have established a decent baseline. Based on that she feels it is reasonable to reduce the sampling frequency to once every 5 years, with the next samples being collected in 2022.

I have taken that into account in developing the budget for that Task.

ATTACHMENTS:	Proposed Final FY 2021 M&MP
RECOMMENDED ACTION:	Provide Input to Technical Program Manager Regarding Any Final Revisions to the Proposed FY 2021 M&MP, Then Approve the Proposed Final 2021 M&MP

Seaside Groundwater Basin 2021 Monitoring and Management Program

The tasks outlined below are those that are anticipated to be performed during 2021. Some Tasks listed below are specific to 2021, 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	Consultants will provide monthly or bimonthly invoices to the
Project Budget and	Watermaster for work performed under their contracts with the
Controls	Watermaster. Consultants will perform maintenance of their internal
(\$0)	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 (\$23,000) 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.

A Consultant (MPWMD) will provide general QA/QC support over the Seaside Basin Monitoring and Management Program. These

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

M.1.g Prepare Documents for SGMA Reporting (\$2,320)

costs are included in the other tasks. 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

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I. 2. a. 1 Conduct Ongoing Data Entry and Database Maintenance/ Enhancement (\$17,004)	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. 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 2021.
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 2021.
I. 2. b. Data Collection Prog	ram
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 2021.
I. 2 b. 2 Collect Monthly Manual Water Levels (\$3,726)	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. (\$42,051) 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 2021.

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 2021, but will no longer be performed on the Watermaster's coastal Sentinel Wells as discussed above.

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 is found to be no longer adequate due to declining groundwater levels an allowance 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 2021.

I. 2. b. 4 Update Program Schedule and Standard Operating Procedures. (\$0)	All recommendations from prior reviews of the data collection program have been implemented. No additional work of this type is anticipated in 2021.
I. 2. b. 5 <u></u> Monitor Well Construction (\$0)	An additional monitoring well was installed in 2009. No further work of this type is anticipated in 2021.
I. 2. b. 6 Reports (\$2,086)	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.
	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.
I.2.b.7 CASGEM Data Submittal (\$5,940)	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.
	I. 3 Basin Management
I. 3. a. Enhanced Seaside Basin Groundwater Model (Costs listed in subtasks below)	The Watermaster and its consultants use a Groundwater Model for basin management purposes.
I.3.a.1 Update the Existing Model (\$0)	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.
	In 2018 the Model was recalibrated and updated. No further work o this type is anticipated in 2021.

I. 3. a. 2	A series of cross-sectional models was created in 2009 in order to
Develop Protective	develop protective water levels for selected production wells, as well
Water Levels	as for the Basin as a whole. This work is discussed in Hydrometrics'
(\$0)	"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.

I. 3. a. 3 Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions (\$70,000) 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.

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 water. In the not-too-distant future there might be the ability of Monterey Peninsula Water Supply Project's (MPWSP) desalination plant (if it gets built) to provide additional water for Basin injection on an interim basis until California American Water's demand level reaches the desalination plant's design capacity. There is some growth built into that plant's capacity for such things as lots of record and economy bounce back, which will likely not all be needed for some years into the future.

Also, if the Pure Water Monterey (PWM) Project were to be expanded this could be another source of water, at least some of which could be injected and left in the Basin to bring up water levels.

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 in 2021. Modeling to determine the additional amount of replenishment water needed to achieve protective groundwater level elevations throughout the Basin, after those projects are constructed, could be performed to aid the Watermaster in pursuing approaches to obtain that additional water for Basin replenishment.

Based on the costs of previous modeling, it is expected to cost approximately \$14,000 to model each scenario. Montgomery & Associates anticipates that it would take a minimum of 3 scenarios to perform an initial assessment of the most cost-effective method of using additional injected water to raise groundwater levels to protective elevations. This Task includes a \$50,000 allowance to perform this modeling, if so directed by the Watermaster Board.

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 2021 to further examine this situation This Task

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 2021. However, 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 had compromised these seals, 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 newly identified by the work performed in 2012. That data has now been incorporated into the Database, and no further work by the Watermaster on this matter is anticipated. 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.

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 any of the geochemical evaluations indicate 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)

I. 4. a. Oversight of Seawater Intrusion Detection and Tracking (\$0)	Consultants will provide general oversight over the Seawater Intrusion detection program under the other Tasks in this Work Plan.
I. 4. c. Annual Report- Seawater Intrusion Analysis (\$27,502)	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. 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.
I. 4. e. Refine and/or Update the Seawater Intrusion Response Plan (\$0)	At the beginning of 2009 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 2021.
I. 4. f. If Seawater Intrusion is Determined to be Occurring, Implement Contingency Response Plan (\$0)	The SIRP will be implemented if seawater intrusion, as defined in the Plan, is determined by the Watermaster to be occurring.

MEETING DATE:	August 12, 2020
AGENDA ITEM:	4
AGENDA TITLE:	Approve the FY 2021 Monitoring and Management Program (M&MP) Operations and Capital Budgets
PREPARED BY:	Robert Jaques

Attached are the proposed M&MP Operations and Capital Budgets for 2021 and 2022. 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 2021 budgets are before the TAC for approval, the 2022 budgets are for information only.

The following are comments and/or principle revisions from the 2020 M&MP Budget:

Technical Program Manager: Due to the voluminous amount of agenda materials from, and meetings being held by, the Salinas Valley Basin Groundwater Sustainability Agency's committees that I serve upon 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 Administrative Officer will be seeking Board approval in the near future to increase my 2020 budget allowance by \$10,000 from \$50,000 to \$60,000. I anticipate that this increased workload will continue in 2021, so this proposed line-item budget amount is increased to \$60,000 in 2021.

Tasks M.1.c, M.1.d, and M.1.e (On-call/as-needed Consulting Services): In 2020 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. Consequently, I needed to authorize an additional \$5,000 to them this month, in order to ensure that funds are available for them to continue providing those services through the rest of 2020. In 2021 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 (Derrik Williams and Georgina King). I anticipate that there may be an ongoing need for this higher level of services in 2021, and have increased their on-call consulting services allowance by \$4,000 in this proposed 2021 line-item budget amount.

Task M.1.g (SGMA Documentation Preparation): Although the scope of work for this Task is unchanged from 2020, in 2021 there will be some hourly rate increases for the Montgomery and Associates staff that perform this work. Therefore, the amount proposed for 2021 is slightly increased from 2020 amount.

Task I.2.b.3 (Collect Quarterly Water Quality Samples): The proposed cost for the induction logging work that is performed by Mr. Feeney and his subcontractor is lower than it was in 2020 because less maintenance work on the Sentinel wells is anticipated in 2021. Thus far, the State Department of Parks and Recreation has been authorizing the induction logging of the Sentinel Wells which are located within the Fort Ord Dunes State Park with minimal requirements. However, they have recently determined that they need to issue a formal Right-of-Entry Permit to perform this work. It

AGENDA ITEM:	4 (Continued)
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appears that this Permit will require payment to State Parks of an annual \$50 fee. This amount has been included in the budget for this Task.

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 2021 to comply with the SGMA requirements for adjudicated basins. Consequently, the number of hours provided for this Task in 2021 has been significantly reduced from the number of hours required in 2020.

Task I.3.a.3 (Evaluate Replenishment Scenarios and Develop Answers to Basin Management

Questions): Included in Task I.3.a.3 is \$50,000 to perform some new modeling work 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 is proposed for 2021 in order to work on getting additional water <u>above and beyond that which would be injected by the desalination plant or the PWM Expansion Project</u> (depending on which of these moves forward to construction) <u>and not extracted</u>, in order to raise groundwater levels to protective elevations Basinwide.

Task I.4.c (Annual Report- Seawater Intrusion Analysis): The scope of work for this Task in 2021 adds making a presentation of the SIAR to the Board of Directors as well as to the TAC. However, it is expected that those presentations will be made remotely (either via teleconference or Zoom) rather than in person, so there is only a minor cost change for this part of the work. Also, in 2021 there will be some hourly rate increases for the Montgomery and Associates staff that perform this work. Therefore, the amount proposed for 2021 is slightly increased from the 2020 amount.

As indicated by the right-hand column titled "Comparative Costs from 2020 Budget" in the proposed 2021 M&MP Operations Budget in <u>Attachment 1</u>, the proposed 2021 Budget is \$68,080 higher (\$284,047-\$215,967) than the 2020 Budget.

Following TAC approval of the 2021 M&MP and Budgets, they will be forwarded to the Budget and Finance Committee and then to the Board for approval at the Board's October 2020 meeting.

Since no Capital Projects are anticipated in 2021, there is no change in the M&MP Capital Budget from 2020 to 2021, and the budget remains at zero dollars.

ATTACHMENTS:	 2021 and 2022 M&MP Operations Budgets 2021 and 2022 M&MP Capital Budgets
RECOMMENDED	Approve, or make changes to, the attached Budgets and then
ACTION:	recommend these for approval by the Board

			Monitoring and Management	Program	Operations	Budget		
			For Tasks to be Unde	rtaken in	2021			
								Comparativ
Task	Subtask	Sub- Subtas k	Cost Description				Total	Costs from 2020 Budge
				CONSULT	ANTS & CONTR Private	ACTORS ⁽³⁾ Contractors		2020 Duug
					Consultants	contractors		
			Labor					
			Technical Project Manager	\$0	\$60,000	\$0	\$60,000	\$50,
1.1 Pi	rogram Ad	minis trati		**				
	M.1.a M.1.b		Project Budget and Controls Assist with Board and TAC Agendas	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	
	M.1.c,		Preparation for and Attendance at Meetings	\$0	\$23,000	\$0	\$23,000	\$19,
	M.1.d, & M.1.e		and Peer Review of Documents and Reports ⁽⁸⁾	φo	\$23,000	φŪ	423,000	<i>41</i> ,
	M.1.f		QA/QC	\$0	\$0	\$0	\$0	
	M.1.g		SGMA Documentation Preparation	\$0	\$2,320	\$0	\$2,320	\$2,
1 Init	U U	l Monitor	ing Well Construction (Task Completed		· ,- ·		• ,- •	• ,
Phas	e 1)							
2 Pro	· · · · ·	Vater Lev	el and Quality Monitoring					
	I. 2. a.		Database Management					
		I. 2. a. 1.	Conduct Ongoing Data Entry/ Database Maintenance/Enhancement ⁽¹⁵⁾	\$14,604	\$2,400	\$0	\$17,004	\$17
		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⁾	\$3,726	\$0	\$0	\$3,726	\$3,
		I. 2. b. 3.	Collect Quarterly Water Quality Samples and Perform Sentinel Well Induction Logging ⁽¹⁾⁽⁵⁾⁽⁶⁾	\$23,550	\$0	\$18,551	\$42,101	\$42,
		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	\$2,086	\$0	\$0	\$2,086	\$2,
		I. 2. b. 7.	CASGEM Data Submittal for	\$5,940	\$0	\$0	\$5,940	\$8,
1 D			Watermaster's Voluntary Wells					
3 Bas	in Manage I. 3. a.	e me nt	Enhanced Seaside Basin Groundwater		(Costs Shown i	n Subtasks Belo	w)	
	1. J. a.		Model		(COSIS SHOWIT	II SUDUSKS DEIO	w)	
		I. 3. a. 1	Update the Existing Model ⁽¹¹⁾	\$0	\$0	\$0	\$0	
		I. 3. a. 2	Develop Protective Water Levels ⁽¹²⁾	\$0	\$0	\$0	\$0	
		I. 3. a. 3	Evaluate Replenishment Scenarios and Develop Answers to Basin Management Ouestions ⁽¹⁰⁾	\$0	\$70,000	\$0	\$70,000	\$20
	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	\$0	\$0	\$0	\$0	
	I. 3. d		Evaluate Coastal Wells for Cross-Aquifer Contamination Potential	\$0	\$0	\$0	\$0	
	I. 3. e		Seaside Basin Geochemical Model ⁽¹³⁾	\$0	\$10,000	\$0	\$10,000	\$10
Sea		usion Cor	tingency Plan			· · · ·		
	I. 4. a.		Oversight of Seawater Intrusion Detection	\$0	\$0	\$0	\$0	
			and Tracking Provide focused area hydrogeologic investigation for Sand City Public Works	\$0	\$0	\$0	\$0	
	I. 4. b.							
	I. 4. b. I. 4. c.		Well ⁽¹⁶⁾ Annual Report- Seawater Intrusion Analysis	\$1,192	\$26,310	\$0	\$27,502	\$25
			Well ⁽¹⁶⁾ Annual Report- Seawater Intrusion Analysis Complete Preparation of Seawater Intrusion	\$1,192 \$0	\$26,310 \$0	\$0 \$0	\$27,502	\$25
	I. 4. c.		Well ⁽¹⁶⁾ Annual Report- Seawater Intrusion Analysis Complete Preparation of Seawater Intrusion Response Plan ⁽²⁾⁽¹⁶⁾ Refine and/or Update the Seawater				-	\$25
	I. 4. c. I. 4. d.		Well ⁽¹⁶⁾ Annual Report- Seawater Intrusion Analysis Complete Preparation of Seawater Intrusion Response Plan ⁽²⁾⁽¹⁶⁾	\$0 \$0 (No Costs at Not be Neces	\$0 \$0 re Included for TH ssary During 202 ngency Funds or	\$0 \$0 his Task, as This 1. If it Does Be	\$0	\$25
	I. 4. c. I. 4. d. I. 4. e.	TOTAL	Well ⁽¹⁶⁾ Annual Report- Seawater Intrusion Analysis Complete Preparation of Seawater Intrusion Response Plan ⁽²⁾⁽⁶⁾ Refine and/or Update the Seawater Intrusion Response Plan ⁽²⁾⁽⁹⁾ If Seawater Intrusion is Determined to be Occurring, Implement Contingency Response Plan ⁽²⁾ S CONSULTANTS & CONTRACTORS	\$0 \$0 (No Costs at Not be Nece: Use of Conti \$51,098	\$0 te Included for Th ssary During 202 ngency Funds or be No \$194,030	\$0 \$0 his Task, as This 1. If it Does Be a Budget Modifi ecessary) \$18,551	\$0 \$0 Task Will Likely come Necessary,	\$25
	I. 4. c. I. 4. d. I. 4. e.	TOTAL	Well ⁽¹⁶⁾ Annual Report- Seawater Intrusion Analysis Complete Preparation of Seawater Intrusion Response Plan ⁽²⁾⁽⁶⁾ Refine and/or Update the Seawater Intrusion Response Plan ⁽²⁾⁽⁹⁾ If Seawater Intrusion is Determined to be Occurring, Implement Contingency Response Plan ⁽²⁾ S CONSULTANTS & CONTRACTORS SUBTOTA	\$0 \$0 (No Costs at Not be Nece: Use of Conti \$51,098 L <u>not</u> including	\$0 te Included for Th ssary During 202 ngency Funds or be Ne \$194,030 Technical Progra	\$0 \$0 his Task, as This 1. If it Does Be a Budget Modifi ccessary) \$18,551 am Manager =	\$0 Task Will Likely scome Necessary, ication Will Likely \$203,679	\$150
	I. 4. c. I. 4. d. I. 4. e.	TOTAL	Well ⁽¹⁶⁾ Annual Report- Seawater Intrusion Analysis Complete Preparation of Seawater Intrusion Response Plan ⁽²⁾⁽⁶⁾ Refine and/or Update the Seawater Intrusion Response Plan ⁽²⁾⁽⁹⁾ If Seawater Intrusion is Determined to be Occurring, Implement Contingency Response Plan ⁽²⁾ S CONSULTANTS & CONTRACTORS	\$0 \$0 (No Costs at Not be Nece: Use of Conti \$51,098 L <u>not</u> including	\$0 te Included for Th ssary During 202 ngency Funds or be Ne \$194,030 Technical Progra	\$0 \$0 \$1. If it Does Be a Budget Modifi ccessary) \$18,551 am Manager = er) (<i>a</i>) 10% ⁽⁴⁾ =	\$0 S0 Task Will Likely come Necessary, ication Will Likely	

Footnotes:

 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
 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 \$1,000 to maintain equipment previously installed for this purpose, \$2,000 to purchase a new sampling pump if an existing one needs to be replaced, and lab costs to analyze for barium and iodide ions in certain of these wells as was done in preceding years beginning in 2012. The Contractor portion of this Task includes the newly imposed \$50 to pay the State Department of Parks and Recreation annual fee to renew the Right-of-Entry Permit to perform this work.

(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 and/or replacement datalogger at a price of \$700, plus \$50 for installation parts, to keep in inventory as a spare if needed.

(7) No additional monitoring well is expected to be constructed in 2021.

(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 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) Since the BMAP was updated in 2019, 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.

(11) The Model was updated and recalibrated in 2018, so no costs for this Task are anticipated in 2021.

(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 2021.

(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 2021 would only be used if the geochemical modeling that is expected to be performed in 2021 for the MPWSP desalination plant water 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 miltgation 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.

(16) This work was completed some years ago and no longer needs to be included in this Budget. It will be eliminated from the M&MP in 2021.

Monitoring and Management Program Operations Budget

For Tasks to be Undertaken in 2022⁽¹²⁾

	Subtas k	Sub- Subtask	Cost Description		LTANTS & CONT		Total
		SUDIASK		MPWMD	Private Consultants	Contractors	
			Labo	r			
			Technical Project Manager	\$0	\$60,000	\$0	\$60,00
1.1 Pr	rogram Ad	lminis trati	on				
	M.1.a		Project Budget and Controls	\$0	\$0	\$0	9
	M.1.b		Assist with Board and TAC Agendas	\$0	\$0	\$0	5
	M.1.c,		Preparation for and Attendance at Meetings	\$0	\$23,690	\$0	\$23,6
	M.1.d, &		and Peer Review of Documents and				
	M.1.e		Reports ⁽⁸⁾				
	M.1.f		QA/QC	\$0	\$0	\$0	:
	M.1.g		SGMA Documentation Preparation	\$0	\$2,390	\$0	\$2,3
.1 Init	tial Phase	1 Monitor	ing Well Construction (Task Completed				
n Phase	e 1)						
.2 Pro	duction, V	Vater Leve	el and Quality Monitoring				
	I. 2. a.		Database Management				
		I. 2. a. 1.	Conduct Ongoing Data Entry/ Database	\$15,042	\$2,472	\$0	\$17,5
			Maintenance/Enhancement				
		I. 2. a. 2.	Verify Accuracy of Production Well Meters	\$0	\$0	\$0	
	I. 2. b.		Data Collection Program				
		I. 2. b. 1.	Site Representation and Selection ⁽⁷⁾	\$0	\$0	\$0	
		I. 2. b. 2.	Collect Monthly Water Levels ⁽⁶⁾	\$3,838	\$0	\$0	\$3,8
	1	I. 2. b. 3	Collect Quarterly Water Quality	\$24,257	\$0	\$19,571	\$43,8
	1		Samples ⁽¹⁾⁽⁵⁾⁽⁶⁾	, /	ŶŬ		,0
		I. 2. b. 4.	Update Program Schedule and Standard	\$0	\$0	\$0	
			Operating Procedures.			• •	
		I. 2. b. 5.	Monitor Well Construction ⁽⁷⁾	\$0	\$0	\$0	
		-	Reports	\$2,149	\$0	\$0	\$2,1
		I. 2. b. 6. I. 2. b. 7.	•	\$6,118	\$0	\$0	\$6,1
		1. 2. 0. 7.		\$0,118	20	20	\$0,1
3 Bas	sin Manag	ement	Watermaster's Voluntary Wells				
J Das	in Manag	c me m					
	I. 3. a.		Enhanced Seaside Basin Groundwater		(Costs Shown	in Subtasks Below)	
	1. J. u.		Model		(0000 010011		
		I. 3. a. 1	Update the Existing Model	\$0	\$0	\$0	
			Develop Protective Water Levels	\$0	\$0	\$0	
			Evaluate Replenishment Scenarios and	\$0	\$20,000	\$0	\$20,0
		1. <i>3</i> . a. <i>3</i>	Develop Answers to Basin Management	\$ 0	\$20,000	50	\$20,0
			Questions				
	I. 3. b.		Complete Preparation of Basin	\$0	\$0	\$0	
	1. 5. 0.		Management Action Plan	\$ 0	φ0	40	
	I. 3. c.		Refine and/or Update the Basin	\$0	\$0	\$0	
	1. 5. 0.		Management Action Plan ⁽¹¹⁾	φΰ	40	40	
	1 2 4		Evaluate Coastal Wells for Cross-Aquifer	\$0	¢0	\$0	
	I. 3. d		1	\$0	\$0	20	
	× .		Contamination Potential ⁽¹³⁾		* *	^	
	I. 3. e		Seaside Basin Geochemical Model ⁽¹⁴⁾	\$0	\$0	\$0	
.4 Sea		usion Cor	tingency Plan				
	I. 4. a.		Oversight of Seawater Intrusion Detection	\$0	\$0	\$0	
			and Tracking				
			Analyze and Map Water Quality from		(Costs Inch	uded Under I.4.a)	
	I. 4. b.						
			Coastal Monitoring Wells				
	I. 4. b. I. 4. c.			\$1,228	\$27,099	\$0	\$28,3
	I. 4. c.		Coastal Monitoring Wells Annual Report- Seawater Intrusion Analysis				
			Coastal Monitoring Wells Annual Report- Seawater Intrusion Analysis Complete Preparation of Seawater Intrusion	\$1,228 \$0	\$27,099 \$0	\$0 \$0	
	I. 4. c. I. 4. d.		Coastal Monitoring Wells Annual Report- Seawater Intrusion Analysis Complete Preparation of Seawater Intrusion Response Plan ⁽²⁾	\$0	\$0	\$0	-
	I. 4. c.		Coastal Monitoring Wells Annual Report- Seawater Intrusion Analysis Complete Preparation of Seawater Intrusion Response Plan ⁽²⁾ Refine and/or Update the Seawater				-
	I. 4. c. I. 4. d.		Coastal Monitoring Wells Annual Report- Seawater Intrusion Analysis Complete Preparation of Seawater Intrusion Response Plan ⁽²⁾	\$0	\$0	\$0	
	I. 4. c. I. 4. d. I. 4. e.		Coastal Monitoring Wells Annual Report- Seawater Intrusion Analysis Complete Preparation of Seawater Intrusion Response Plan ⁽²⁾ Refine and/or Update the Seawater	\$0	\$0 \$0	\$0 \$0	
	I. 4. c. I. 4. d.		Coastal Monitoring Wells Annual Report- Seawater Intrusion Analysis Complete Preparation of Seawater Intrusion Response Plan ⁽²⁾ Refine and/or Update the Seawater Intrusion Response Plan ^{(2) (9)} If Seawater Intrusion is Determined to be	\$0 \$0 (No Costs are	\$0 \$0 Included for This	\$0 \$0 Task, as This Task V	2
	I. 4. c. I. 4. d. I. 4. e.		Coastal Monitoring Wells Annual Report- Seawater Intrusion Analysis Complete Preparation of Seawater Intrusion Response Plan ⁽²⁾ Refine and/or Update the Seawater Intrusion Response Plan ^{(2) (9)} If Seawater Intrusion is Determined to be Occurring, Implement Contingency	\$0 \$0 (No Costs are Necessary	\$0 \$0 Included for This During 2019. If i	\$0 \$0	Vill Likely Not
	I. 4. c. I. 4. d. I. 4. e.		Coastal Monitoring Wells Annual Report- Seawater Intrusion Analysis Complete Preparation of Seawater Intrusion Response Plan ⁽²⁾ Refine and/or Update the Seawater Intrusion Response Plan ^{(2) (9)} If Seawater Intrusion is Determined to be	\$0 \$0 (No Costs are Necessary	\$0 \$0 Included for This During 2019. If i ncy Funds or a Bu	\$0 \$0 Task, as This Task V t Does Become Necc	Vill Likely Not I
	I. 4. c. I. 4. d. I. 4. e.	TOTAL	Coastal Monitoring Wells Annual Report- Seawater Intrusion Analysis Complete Preparation of Seawater Intrusion Response Plan ⁽²⁾ Refine and/or Update the Seawater Intrusion Response Plan ^{(2) (9)} If Seawater Intrusion is Determined to be Occurring, Implement Contingency	\$0 \$0 (No Costs are Necessary	\$0 \$0 Included for This During 2019. If i ncy Funds or a Bu	\$0 \$0 Task, as This Task V t Does Become Nece udget Modification W	Vill Likely Not
	I. 4. c. I. 4. d. I. 4. e.	TOTAL	Coastal Monitoring Wells Annual Report- Seawater Intrusion Analysis Complete Preparation of Seawater Intrusion Response Plan ⁽²⁾ Refine and/or Update the Seawater Intrusion Response Plan ^{(2) (9)} If Seawater Intrusion is Determined to be Occurring, Implement Contingency Response Plan ⁽²⁾ S CONSULTANTS & CONTRACTORS	\$0 \$0 (No Costs are Necessary Continge \$52,631	\$0 \$0 Included for This During 2019. If i ncy Funds or a Br Ne \$135,651	\$0 \$0 Task, as This Task V t Does Become Nece udget Modification W ccessary) \$19,571	Vill Likely Not l essary, Use of ill Likely be
	I. 4. c. I. 4. d. I. 4. e.	TOTAL	Coastal Monitoring Wells Annual Report- Seawater Intrusion Analysis Complete Preparation of Seawater Intrusion Response Plan ⁽²⁾ Refine and/or Update the Seawater Intrusion Response Plan ^{(2) (9)} If Seawater Intrusion is Determined to be Occurring, Implement Contingency Response Plan ⁽²⁾ S CONSULTANTS & CONTRACTORS SUB	\$0 \$0 (No Costs are Necessary Continge \$52,631 TOTAL not inc	\$0 S0 Included for This During 2019. If i ncy Funds or a Br Ne \$135,651 Iuding Technical I	\$0 \$0 Task, as This Task V t Does Become Necc udget Modification W ecessary) \$19,571 Program Manager =	Vill Likely Not essary, Use of ill Likely be \$147,8
	I. 4. c. I. 4. d. I. 4. e.	TOTAL	Coastal Monitoring Wells Annual Report- Seawater Intrusion Analysis Complete Preparation of Seawater Intrusion Response Plan ⁽²⁾ Refine and/or Update the Seawater Intrusion Response Plan ^{(2) (9)} If Seawater Intrusion is Determined to be Occurring, Implement Contingency Response Plan ⁽²⁾ S CONSULTANTS & CONTRACTORS SUB	\$0 \$0 (No Costs are Necessary Continge \$52,631 TOTAL not inc	\$0 Included for This During 2019. If i ncy Funds or a Br Ne \$135,651 luding Technical I hnical Program M	\$0 \$0 Task, as This Task V t Does Become Nece udget Modification W ccessary) \$19,571	Vill Likely Not essary, Use of ill Likely be

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 2022.

(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 2021 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 2022.

(14) It is assumed that all work of this Task will be completed in 2021.

Monitoring and Management Program Capital Budget For Tasks to be Undertaken in 2021

No Capital projects are anticipated to be undertaken in 2021, so this budget is \$0.

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

No Capital projects are anticipated to be undertaken in 2022, so this budget is \$0.

MEETING DATE:	August 12, 2020
AGENDA ITEM:	5
AGENDA TITLE:	Approve Initial RFSs for Montgomery & Associates, MPWMD, Martin Feeney, and Todd Groundwater for 2021
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY: Attached are the proposed <u>initial</u> contracts for each of the Watermaster's consultants that are expected to work on M&MP activities during 2021. 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. The attached RFSs constitute the proposed initial 2021 work assignments for each of these consultants as follows:

- Montgomery & Associates RFS No. 2021-01 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. 2021-02 covering their preparing the 2021 SIAR.
- MPWMD RFS No. 2021-01 covering their anticipated 2021 M&MP tasks.
- MPWMD RFS No. 2021-02 covering their obtaining water quality and water level data from private producers who ask the Watermaster collect this data for them. The costs for this work are reimbursed by the private producers, and there is no net cost to the Watermaster for work performed under this RFS.
- Martin Feeney RFS No. 2021-01 covering his performing induction logging of certain of the Watermaster's monitoring wells and providing that data to MPWMD and Montgomery & Associates. This work also includes performing some maintenance on the Sentinel Wells.
- Martin Feeney RFS No. 2021-02 covering his providing general hydrogeologic consulting services.
- Todd Groundwater RFS No. 2021-01 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.

If geochemical modeling needs to be performed on Cal Am's desalination plant water in 2021, 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 2021 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 2021. When and if drafted, the RFS would come to the TAC for approval before going to the Board.

These contracts are on today's agenda to provide the TAC with the opportunity to raise questions or make suggestions for changes to the scopes-of-work or costs, before they are presented to the Board for approval at the Board's October 7, 2020 meeting, to ensure the contacts can be in effect at the start of 2021.

ATTACHMENTS:	7 - Proposed Consultant Contracts for FY 2021 (2 RFSs – Montgomery
	& Associates, 2 RFSs – MPWMD, 2 RFSs – Martin Feeney, 1 RFS –
	Todd Groundwater)

RECOMMENDED ACTION:	Discuss and either modify or approve the proposed contracts
ACTION:	

SEASIDE BASIN WATERMASTER REQUEST FOR SERVICE

DATE: _____ January 1, 2021____

RFS NO. <u>2021-01</u> (To be filled in by WATERMASTER)

 TO:
 Hale Barter
 FROM:
 Robert Jaques

 Montgomery & Associates
 WATERMASTER

 PROFESSIONAL
 WATERMASTER

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

Completion Date: <u>All work of this RFS shall be completed not later than December 31, 2021, and shall be performed in accordance with the Schedule contained in Attachment 2.</u>

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

Total Price Authorized by this RFS: \$ 17,320.00 (Cost is authorized <u>only</u> when evidenced by signature below.) (See <u>Attachment 1</u> for Estimated Costs).

Total Price may <u>not</u> 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	

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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 2021 Monitoring and Management Program (M&MP) to which this RFS No. 2021-01 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.

\$15,000 in labor, travel, and incidental costs of this RFS No. 2021-01 are allocated to performing work on these Tasks.

<u>Task M.1.g.</u> 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. 2021-01.

\$2,320 in labor costs of this RFS No. 2021-01 are allocated to performing work for Task M.1.g.

All work under this RFS No. 2020-01 will be billed at the following hourly rates, including all markups and other direct costs:

Derrik Williams = \$260.00/hour Georgina King = \$215.00/hour

The total cost authorized by this RFS No. 2021-01 is \$17,320.00.

ATTACHMENT 2 SCHEDULE

Montgomery & Associates RFS No. 2021-01 Work Schedule

D	Task Name			2021														
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
	M. 1. c - Preparation and Attendance of Meetings						:											
2	M. 1. e - Peer Review of Documents and Reports					1	1	1	1			1						
3	M.1.g - SGMA Document Preparation				1	1	ģ											

Montgomery Work Schedule for RFS No 2021-01 7-14-20.mpp

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SEASIDE BASIN WATERMASTER REQUEST FOR SERVICE

DATE: <u>1/1/2021</u> RFS NO. <u>2021-02</u> (To be filled in by WATERMASTER)

 TO:
 Hale Barter
 FROM:
 Robert Jaques

 PROFESSIONAL
 WATERMASTER

Services Needed and Purpose: Prepare the Seawater Intrusion Analysis Report for 2021. See Scope of Work in Attachment 1.

Completion Date: <u>All work of this RFS shall be completed not later than December 31, 2021, and shall be performed in accordance with the Schedule contained in Attachment 2.</u>

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

Total Price Authorized by this RFS: \$ 26,310.00 (Cost is authorized <u>only</u> when evidenced by signature below.) (See <u>Attachment 3</u> for Detailed Breakdown of Estimated Costs).

Total Price may <u>not</u> 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

SCOPE OF WORK

The scope consists of providing professional consulting services to WATERMASTER for preparation of the 2021 Seawater Intrusion Analysis Report (SIAR).

To promote efficiency, much of the text and graphics from the 2020 SIAR will be incorporated directly into the 2021 SIAR.

Preparing the 2021 SIAR will involve analyzing all water quality data at the end of Water Year 2021 (October 1, 2020 to September 30, 2021) and producing semi-annual (2nd and 4th quarters 2021) 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 2021 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 2021 SIAR.

A Draft 2021 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 2021 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 2021 SIAR in MS Word and up to 15 printed and bound copies of the Final 2021 SIAR (quantity to be determined by WATERMASTER) will be provided to WATERMASTER.

Montgomery & Associates RFS No. 2021-02 Work Schedule

ID	Task Name						20	21											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Ju
1	I.4.c Annual Seawater Intrusion Analysis Report (SIAR)																		
2	HydroMetrics Provides Draft SIAR to Watermaster											4 1	1/10						
3	TAC Approves Annual Seawater Intrusion Analysis Report (SIAR)											٠	11/17						
4	Board Approves Annual Seawater Intrusion Analysis Report (SIAR)												12/	1					

Work Schedule for Montgomery RFS No 2021-02 7-14-20.mpp

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DETAILED BREAKDOWN OF ESTIMATED COSTS

<u>Note:</u> 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.

Task	Ho	urs		Co	sts	
2021 Seawater Intrusion Analysis Report	Georgina King (\$215 per hr)	Staff (\$150 per hr)	Georgina King	Staff	Expense s	Total Costs
Prepare 2021 SIAR, including added appendices for groundwater levels and quality (15 hardcopies)	32	108	\$6,880	\$16,200	\$650	\$23,730
Prepare for and Attend One TAC Meeting and One Board Meeting Online	12	0	\$2,580	\$0	\$0	\$2,580
TOTALS	44	108	\$9,460	\$16,200	\$650	\$26,310

SEASIDE BASIN WATERMASTER REQUEST FOR SERVICE

DATE: January 1, 2021

RFS NO. 2021-01 . (To be filled in by WATERMASTER)

TO: Jonathan Lear

Monterey Peninsula Water Management District PROFESSIONAL

FROM: <u>Robert Jaques</u>. WATERMASTER

Services Needed and Purpose:

Perform certain Tasks contained within the Watermaster's Monitoring and Management Plan for 2021 (See detailed Scope of Work in Attachment 1).

Completion Date: The work of this RFS No. 2021-01 shall be completed in accordance with the schedule contained in Attachment 2.

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

Total Price Authorized by this RFS: \$<u>51,118.00</u> (See Attachment 3 for a Breakdown of this Total Price. Cost is authorized <u>only</u> when evidenced by signature below.)

Total Price may <u>not</u> 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:_____

Detailed Scope of Work for RFS No. 2021-01

Background:

The Watermaster Board approved the Budget for the 2021 Monitoring and Management Program (hereinafter referred to as the "2021 M&MP") at its meeting of October 7, 2020.

This RFS No. 2021-01 authorizes PROFESSIONAL to perform certain work on certain of the Tasks described in the 2021 M&MP. The Task numbers listed in Table 1 of this Detailed Scope of Work for RFS No. 2021-01 correspond to the Task numbers in the 2021 M&MP.

	1	
I. 2. a.1	Conduct ongoing data entry/ database maintenance	PROFESSIONAL will perform water production, water level, and water quality data entry into WATERMASTER's database, and data editing as necessary, and will provide appropriate quality control and quality assurance for this data. Other than an annual reporting of data to another WATERMASTER Consultant at the end of the Water Year, as mentioned below, no reporting of water level or water quality data during the Water Year is required. However, PROFESSIONAL will promptly notify the Watermaster of any missing data or data collection irregularities that were encountered during the quarterly reporting period. Upon request from WATERMASTER, PROFESSIONAL will also enter other data into the database, such as updated information pertaining to well records. WATERMASTER will provide PROFESSIONAL with water production data. PROFESSIONAL will review the water production data provided by WATERMASTER for quality assurance and quality control purposes, and will notify WATERMASTER of any discrepancies PROFESSIONAL observes in this data. WATERMASTER will followup as appropriate with the water producers to resolve any such discrepancies. PROFESSIONAL will also host and maintain the Watermaster's Database. Any changes to WATERMASTER. That agreement will either be with PROFESSIONAL or with another consultant. At the end of the Water Year PROFESSIONAL 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. 1.4.c of the Monitoring and Management Program.

I. 2. b. 2	Collect Monthly Water Levels	The monitoring wells from which water level data is to be collected by PROFESSIONAL are listed under the heading "MONITORING TO BE PERFORMED BY PROFESSIONAL" in the column titled "Level" in Table 2. PROFESSIONAL will visit each of the indicated wells at the frequencies shown in Table 2 in order to obtain the water level data. At these visits PROFESSIONAL will measure and record water levels 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 already been equipped with dataloggers. This Task includes the purchase of one datalogger @ \$700 to keep in inventory as a spare if needed, plus \$50 in parts for the datalogger.
		All of the other wells will be manually measured.

I. 2. b. 3	Collect Quarterly Water Quality Samples	The monitoring wells from which water quality data is to be collected by PROFESSIONAL are listed under the heading "MONITORING TO BE PERFORMED BY PROFESSIONAL" in the column titled "Quality" in Table 2. PROFESSIONAL will visit each of the indicated wells at the frequencies shown in Table 2 in order to obtain the water quality samples, and will perform water quality analyses on these samples. The water quality constituents that will be measured in these analyses are: Specific Conductance (micromhos/cm), Total Alkalinity (as CaCO ₃), Bicarbonate (as HCO ₃ .), pH, Chloride, Sulfate, Ammonia Nitrogen (as NH ₃), Nitrate Nitrogen (as NO ₃), Total Organic Carbon, Calcium, Sodium, Magnesium, Potassium, Iron, Manganese, Orthophosphate, Total Dissolved Solids, Hardness (as CaCO ₃), Boron, Bromide, and Fluoride. For the following wells listed in Table 2, Barium and lodide will also be measured quarterly: MSC Shallow, MSC Deep, PCA-W Shallow, PCA-W Deep, MPWMD #FO-09 Shallow, and MPWMD #FO-09 Deep. The data may either come from water quality samples that are collected by the airlift method, by the positive displacement method during induction logging of these wells and/or other data gathering techniques, or combinations of these methods, at the discretion of PROFESSIONAL, and will be submitted to a State-certified analytical laboratory for analysis.
		Retrofitting to use the low-flow purge approach for getting water quality samples has already been completed on all of the wells that are sampled on a quarterly basis. Retrofitting of the wells that are sampled on an annual basis is not warranted. This sampling equipment sits in the water column and may periodically need to be replaced or repaired. Accordingly, an allowance of \$1,000 to perform maintenance on previously installed equipment has been included in this Task. Also, in the event a sampling pump is found to be no longer adequate due to declining groundwater levels, or if a sampling pump needs to be installed on a Sentinel Well, an allowance of \$2,000 to purchase a sampling pump has been included in this Task.

I.2.b.7	CASGEM Data Submittal	PROFESSIONAL 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.
I.4.c	Review Seawater Intrusion Analyses	WATERMASTER will have another consultant perform analyses and prepare mapping and other documents pertaining to seawater intrusion detection. PROFESSIONAL may participate in meetings with that consultant during the course of its work, and may provide review comments and recommendations to WATERMASTER regarding this work as it is being carried out by that consultant.

		Table 2.	Monitor	ing Wells						
WELL NAME AND SUBAREA LOCATION ⁽⁸⁾	MONITORING NETWORK ⁽¹⁾			FORING RED BY SION ⁽²⁾	MONI CURREN PERFO PROFE NOT SU	TORING TLY BEING RMED BY SSIONAL BJECT TO RFS ⁽³⁾			BE PERFOI UNDER THI	
					Le	evel	Le	evel	Qua	ality
	Professional's	Watermaster's	Level	Quality	Freq	uency	Freq	uency	Frequ	uency
	FICIESSICITATS	waternasters	(Monthly)	(Annually)	Monthly	Quarterly	Monthly	Quarterly	Annually	Quarterly
Northern Coastal Subarea (and vicinity)	•	•	•							
MSC-Shallow		Х					Х			Х
MSC-Deep		Х					Х			Х
PCA-W Shallow		Х						Х		Х
PCA-W Deep		Х						Х		Х
PCA-E (Multiple) Shallow	Х				Х				Х	
PCA-E (Multiple) Deep	Х				Х				Х	
Ord Grove Test-Shallow /Deep	Х				Х					
Paralta Test-Shallow /Deep	Х				Х					
Ord Terrace-Shallow	Х				Х				Х	
Ord Terrace-Deep ⁽¹¹⁾	Х				Х					
MPWMD #FO-09-Shallow	Х				Х					Х
MPWMD #FO-09-Deep	Х				Х					Х
MPWMD #FO-10-Shallow		Х					Х		Х	
MPWMD #FO-10-Deep		Х					Х		Х	
Fort Ord Monitor MW-B-23-180-Dune/Aromas ⁽¹³⁾		Х					Х		Х	
CDM MW-1-Dune/Aromas		Х					Х			
CDM MW-2-Dune/Aromas		Х					Х			
CAW Del Monte Observation-Shallow		Х							Х	
SBWM MW-1-Deep (Purisima) ⁽⁶⁾		Х						Х		
SBWM MW-2-Deep (Purisima) ⁽⁶⁾		Х						Х		
SBWM MW-3-Deep (Purisima) ⁽⁶⁾		Х						Х		
SBWM MW-4-Deep (Purisima/Santa Margarita) ⁽⁶⁾		Х						Х		
Northern Inland Subarea (and vicinity)										
MPWMD #FO-01-Shallow	X					X				
MPWMD #FO-01-Deep	X					X				L
MPWMD #FO-07-Shallow	X					X				
MPWMD #FO-07-Deep	X					X				
MPWMD #FO-08-Shallow	X					X				
MPWMD #FO-08-Deep	X					X				
MPWMD #FO-11-Shallow	X					X				
MPWMD #FO-11-Deep	Х	х				Х		V	х	I
SBWM MW-5-Shallow (Paso Robles) ⁽⁶⁾								X		
SBWM MW-5-Deep (Santa Margarita) ⁽⁶⁾		Х	l	l		l		Х	Х	<u> </u>

Table 2 (Continued)

Southern Coastal Subarea (and vicinity)			-							
Plumas '90 Test-Deep		Х					Х			
K-Mart-Dune/Aromas		X					X			
CDM MW-3-Dune/Aromas		X					X			
		X					X			
CDM MW-4-Dune/Aromas										
MW-BW-08A-Dune/Aromas		X					X			
MW-BW-09-180-Shallow		X					Х			
Shea		Х						Х		
Sand City Public Works Well		Х					Х		Х	
Laguna Seca Subarea (and vicinity)										
MPWMD #FO-03-Shallow	Х					Х				
MPWMD #FO-03-Deep	Х					Х				
MPWMD #FO-04-Shallow (E)	Х					Х				
MPWMD #FO-04-Deep (W)	Х					Х				
MPWMD #FO-05-Shallow	Х					Х				
MPWMD #FO-05-Deep	Х					Х				
MPWMD #FO-06-Shallow	Х					Х				
MPWMD #FO-06-Deep	Х					Х				
Justin Court (RR M2S)-Shallow	Х					Х				
LS Pistol Range (Mo Co TH-1)-Deep	Х					Х				
York Rd-West (Mo Co MW-1 D)-Deep	Х					Х				
Seca Place (Mo Co MW-2)-Deep	Х					Х				
Robley Shallow (North) (Mo Co MW-3S)-Shallow	Х					Х				
Robley Deep (South) (Mo Co MW-3D)-Deep	Х					Х				
LS No. 1 Subdivision-Deep	Х					Х				
Blue Larkspur-East End-Believed to be Deep	Х					Х				
York School-Shallow		Х	Х						Х	
Laguna Seca Driving Range (SCS-Deep)-Shallow ⁽¹²⁾		Х						Х		
Laguna Seca County Park #2-Shallow		Х	Х						Х	
CAW Granite Construction-Deep		Х					Х			
CAW Ryan Ranch (RR) #7-Deep		Х	Х						Х	
Laguna Seca Golf New #12-Deep ⁽⁹⁾		Х							Х	
Pasadera Main Gate-Deep		Х	Х					1	Х	
No. of Wells in Each Network ⁽⁵⁾ ≕	32	31	4	0	8	24	15	10	15	6

Notes:										
(1) The wells within the Professional's Monitor	ring Well Network a	are the wells that	PROFESSIO	NAL monitors	as part of	PROFESSI	ONAL's ow	n monitorin	g program.	The wells
within the Watermaster's Monitoring Well Netv	vork are the wells t	to be monitored u	nder this RFS	i.						
(2) Monitoring required by the Decision is the	monitoring describ	ed in the Monitor	ing and Mana	gement Prog	am which	was incorpor	ated by re	erence in th	ne Decision	of the Cour
dated February 9, 2007.										
(3) Monitoring currently being performed by PI	ROFESSIONAL no	ot subject to this	RFS is monito	oring work PR	OFESSION	VAL is perfor	ming unde	r other mon	itoring progr	ams. This
monitoring is not a part of this RFS.										
(4) Monitoring to be performed by PROFESSIO	ONAL is the monito	oring to be perform	ned under this	RFS.						
(5) The Watermaster's Monitoring Well Netwo	rk includes the we	lls recommended	in the Enhan	ced Monitorin	a Well Net	work report p	prepared by	PROFESS	SIONAL, dat	ed October
23, 2007, plus the 4 new Sentinel Wells instal					0					
23, 2007, plus the 4 new Sentinel Wells instal	led in 2007 and the	e BLM well install	ed in 2011.							
	led in 2007 and the	e BLM well install	ed in 2011.							
23, 2007, plus the 4 new Sentinel Wells instal(6) The Seaside Basin Watermaster (SBWM)	led in 2007 and the	e BLM well install	ed in 2011.							
23, 2007, plus the 4 new Sentinel Wells instal (6) The Seaside Basin Watermaster (SBWM) quarterly basis for calibration purposes.	led in 2007 and the wells are all equipp	e BLM well install	ed in 2011.							
 23, 2007, plus the 4 new Sentinel Wells install (6) The Seaside Basin Watermaster (SBWM) quarterly basis for calibration purposes. (7) Not used. (8) Shallow=Paso Robles; Deep=Santa Marg 	led in 2007 and the wells are all equipp arita or Purisima.	e BLM well install bed with datalogg	ed in 2011. ers that obtair	n measureme						
 23, 2007, plus the 4 new Sentine^T Wells install (6) The Seaside Basin Watermaster (SBWM) quarterly basis for calibration purposes. (7) Not used. (8) Shallow=Paso Robles; Deep=Santa Marg (9) This well is so close to the Laguna Seca C 	led in 2007 and the wells are all equipp parita or Purisima. Did No. 12 well tha	e BLM well install bed with datalogg t no water level m	ed in 2011. ers that obtain onitoring is ne	n measureme ecessary.						
 23, 2007, plus the 4 new Sentinel Wells instal (6) The Seaside Basin Watermaster (SBWM) quarterly basis for calibration purposes. (7) Not used. 	led in 2007 and the wells are all equipp parita or Purisima. Did No. 12 well that ger be sampled ar	e BLM well install bed with datalogg t no water level m nd was therefore of	ed in 2011. ers that obtain onitoring is ne	n measureme ecessary.						
 23, 2007, plus the 4 new Sentine^T Wells install (6) The Seaside Basin Watermaster (SBWM) quarterly basis for calibration purposes. (7) Not used. (8) Shallow=Paso Robles; Deep=Santa Marg (9) This well is so close to the Laguna Seca C (10) CAW East Fence Shallow well can no lon 	led in 2007 and the wells are all equipp arita or Purisima. Did No. 12 well tha ger be sampled ar can no longer be s	e BLM well install bed with datalogg t no water level m nd was therefore of ampled.	ed in 2011. ers that obtain nonitoring is ne dropped from t	n measureme ecessary. his list.	nts at least	t daily, but w	vill be man	ually sounde	ed for water	level on a
 23, 2007, plus the 4 new Sentine^T Wells install (6) The Seaside Basin Watermaster (SBWM) quarterly basis for calibration purposes. (7) Not used. (8) Shallow=Paso Robles; Deep=Santa Marg (9) This well is so close to the Laguna Seca C (10) CAW East Fence Shallow well can no lon (11) Ord Terrace deep well is obstructed and 	led in 2007 and the wells are all equipp arita or Purisima. Did No. 12 well tha ger be sampled ar can no longer be s	e BLM well install bed with datalogg t no water level m nd was therefore of ampled.	ed in 2011. ers that obtain nonitoring is ne dropped from t	n measureme ecessary. his list.	nts at least	t daily, but w	vill be man	ually sounde	ed for water	level on a

Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May J	_																						
I.2.a DATABASE MANAGEMENT I.2.a DATABASE MANAGEMENT I.2.a DATABASE MANAGEMENT I.2.a.1 Conduct Ongoing Data Entry/Database Maintenance I.2.a DATABASE MANAGEMENT I.2.a DATABASE MANAGEMENT I.2.b.2 Collect Ion PROGRAM I.2.b.2 Collect Monthly Water Levels (MPWMD) I.2.b.3 Collect Quarterly Water Quality Samples (MPWMD) I.2.b.7 CASGEM Data Submittal I.2.b.7 CASGEM Data Submittal I.2.b.7 CASGEM Data Submittal	D	Task Name	Son	Oct	t NF		an Eol	h Mar		r May	20	021	Au~	San	Oct	Nov	Dec	lan	Eab	Mar	Apr	May	
3 Annual Water Production, Water Level, and Water Quality Tabulation for 2021 11/15 4 1.2.b. 2 Collect Monthly Water Levels (MPWMD) 12.b.3 Collect Quarterly Water Quality Samples (MPWMD) 5 1.2.b.7 CASGEM Data Submittal 12.b.7 CASGEM Data Submittal	1	I.2.a DATABASE MANAGEMENT	Sep	100				5 Iviai	Api	Ilviay	Jun	Jui	IAug	Seh	000	1100	Dec	Jan	Feb	iviai	Арг	iviay	J
for 2021 for 2021 4 I.2.b DATA COLLECTION PROGRAM 5 I.2.b.2 Collect Monthly Water Levels (MPWMD) 6 I.2.b.7 CASGEM Data Submittal	2	I.2.a.1 Conduct Ongoing Data Entry/Database Maintenance																					
5 I.2.b.2 Collect Monthly Water Levels (MPWMD) 6 I.2.b.3 Collect Quarterly Water Quality Samples (MPWMD) 7 I.2.b.7 CASGEM Data Submittal	3	Annual Water Production, Water Level, and Water Quality Tabulation for 2021														• 1	11/15	5					
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I.4.c MPWMD Provides Assistance in Seawater Intrusion Detection							-	-	-					ļ.									
)	I.4.c MPWMD Provides Assistance in Seawater Intrusion Detection																					L

ATTACHMENT 3	SUMMAR	OF ESTIMATED COSTS
LABOR HOURS	HOURLY	SUPPLIES AND MATERIALS

M&MP TASK NO.	LABOR HOURS		HOURLY	SUPPLIES AND MATERIALS		TOTAL		
	BREAKDOWN	TOTAL	RATE	BREAKDOWN	TOTAL			
I. 2. a. 1	12 mo. @ 8 hrs/mo.	96	\$149	Other services needed to host and maintain Watermaster's Database, estimate \$300 for the year.	\$300	\$14,604		
I. 2. b. 2.	12 mo. @ 4 hrs/mo. 48 \$62 Purchase one datalogger @ \$700 plus \$50 in parts to keep in inventory as a spare if needed.							
	Quarterly WQ wells (Table 2): MPWMD Coastal wells (6 wells - shallow and deep aquifers @ 3 sites: MSC, PCA-W, FO-09), plus one additional verification WQ sample at Ord Terrace Shallow Well. Labor: 4 events @ 16 hrs/event	64	\$62	Fuel: 4 events @ \$10/site x 3 sites = \$120; Lab costs: 4 events @ \$225/well x 7 wells = \$6,300; plus one verification sample lab cost = \$225.	\$6,645	\$10,613		
I. 2. b. 3.	Annual WQ wells (Table 2): 1 event @ 28 hrs/event = 28 hrs	28	\$62	BLM site: Eductor setup (use MPWMD portable unit): \$0 x 1 site = \$0; Airlift equip.: \$100 x 1 site x 1 event = \$100; Fuel: \$20 x 1 site x 1 event = \$20. Lab cost (annual WQ wells): \$175 x 15 wells x 1 event = \$2,625; maintenance on previously installed sample collection equipment = \$1,000. One-time cost, if necessary, for replacing a well sampling pump fithe existing pump fails or is found to be inadequate due to dropping groundwater levels = \$2,000.	\$5,745	\$7,481		
	WM Sentinel and Northern Inland wells: download/store dataloggers, 4 events @ 2 hrs/event	8	\$62	N/A	\$0	\$496		
	Compile data: 4 events @ 20 hours/event	80	\$62	N/A	\$0	\$4,960		
I. 2. b. 6	Provide Data Appendix for SWI Report	14	\$149	N/A	\$0	\$2,086		
I.2.b.7	Quarterly CASGEM Data Submittal for Watermaster's Voluntary Wells	40	\$149	N/A	\$0	\$5,960		
I. 4. c	Provide SWI supplemental data and review.	8	\$149	N/A	\$0	\$1,192		
				TOTAL ESTIMATED	COST =	\$51,118		

Notes:

1. Vehicle mileage is included in the labor costs above.

2. 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 A-1 of

this RFS is binding and limiting as defined in Section V of the Agreement.

SEASIDE BASIN WATERMASTER REQUEST FOR SERVICE

DATE: January 1, 2021

RFS NO. 2021-02 (To be filled in by WATERMASTER)

TO: Jonathan Lear

FROM: <u>Robert Jaques</u>. Monterey Peninsula Water Management District WATERMASTER

PROFESSIONAL

Services Needed and Purpose:

Perform water level and water quality data collection for specified wells within the Seaside Basin in accordance with the Scope of Work contained in Attachment 1.

Completion Date: The work of this RFS No. 2021-02 shall be completed on an as-directed basis from the Watermaster during 2021. All work under this RFS will be completed not later than December 31, 2021.

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

Total Price Authorized by this RFS: \$3,915.00 (See Attachment 1 for details regarding this Total Price, and how costs will be authorized on an as-directed basis. 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.

Requested by: _____

Date: .

WATERMASTER Technical Program Manager

Agreed to by: _____

Date: .

ATTACHMENT 1 Scope of Work for RFS No. 2021-02

Background:

The WATERMASTER Board authorized its staff to contract with the PROFESSIONAL to collect water level and water quality data from certain wells located within the Seaside Basin, if the owners/operators of those wells expressed this desire to the WATERMASTER. The procedures for this data collection are described in the January 17, 2008 "Notice to Well Owners" that was sent out by the Watermaster to well owners in the Seaside Groundwater Basin.

This RFS No. 2021-02 authorizes PROFESSIONAL to perform this data collection work on an as-directed basis, with formal authorization from the WATERMASTER to the PROFESSIONAL being required prior to the PROFESSIONAL performing such work on <u>any</u> specified well. This will provide the WATERMASTER with full control over which wells are provided this service, as well as over the costs for having this work performed.

The wells to which these services may be provided are listed in Table 1.

The estimated costs, per well, to perform these services are as follows:

Monthly Water Levels - It is estimated that it will take approximately 0.5 hour/well to perform a water level measurement. This time estimate is based on the assumption that the water level measurements will be performed at the time that a field person is already out and about collecting data from other wells, and the fact that the distance between wells located within the Basin is not that great. This labor would be billed at the field rate of \$62/hr, so the estimated cost per water level measurement would be \$31.00.

The total estimated cost would be \$372 per year per well for 12 monthly measurements.

Annual Water Quality Sampling - Assuming that annual water sample collection would coincide with water level collection at a well, it is estimated that it will take approximately 0.5 hr to collect the water quality sample, including sampling time, bottle labeling, custody forms, delivery to laboratory, etc. There will also be an estimated 0.5 hr for receipt, review and computer entry of laboratory data, and an estimated \$175 per sample for the laboratory analysis. The sampling work would be billed at the field rate of \$62/hr, and the review and computer data entry work would be billed at the rate of \$149/hr, so the estimated cost per annual water quality sample would be \$105.50 for labor, and \$175 for laboratory services, for a total cost per sample of \$280.50. Only one sample per well per year will need to be collected and analyzed. This sample will be collected in the fall.

The total estimated cost for collecting and analyzing the sample per well is \$280.50.

Combined Water Level Measurements and Water Quality Sampling: For combined water level and water quality monitoring, the total estimated cost, <u>per well</u>, for the 12-month period is \$652.50.

Of the wells listed in Table 1 it is assumed that not more that 6 will ask to have data collected for them by the WATERMASTER, the total estimated cost would be:

Potential No. of Wells Needing Water Level Data Collected = 6 @ \$372 = \$2,232Potential No. of Wells Needing Water Quality Data Collected = 6 @ \$280.50 = \$1,683TOTAL $= \underline{\$3,915}$

Table 1

APN	DETAILS	COMPANY	Watermaster "Producer" Well?	MPWMD Assigned Well #	Monthly Water Levels Required	Monthly Water Levels Being Collected?	Annual Water Quality Analyses Required?	Annual Water Quality Data Being Collected?
Within MPWM	D Boundaries							
012-432-004	CAW - Plumas #4	California American Water Co.	Y	T15S/R1E-27Jg	Y	Y	Y	N
012-843-013	CAW - Darwin	California American Water Co.	Y	T15S/R1E-23Ea	Y	Y	Y	N
011-041-018	CAW - Military	California American Water Co.	Y	T15S/R1E-14Nd	Y	Y	Y	N
011-061-004	CAW - Ord Grove #2	California American Water Co.	Y	T15S/R1E-23Bc	Y	Y	Y	N
011-071-018	CAW - New Luzern	California American Water Co.	Y	T15S/R1E-23De	Y	Y	Y	N
011-091-017	CAW - Playa #3	California American Water Co.	Y	T15S/R1E-22Bc	Y	Y	Y	N
011-091-017	CAW - Playa #4	California American Water Co.	Y	T15S/R1E-22Bf	Y	Y	N	
011-493-028	CAW - Paralta	California American Water Co.	Y	T15S/R1E-14Ra	Y	Y	Y	N
031-151-010	Reservoir Well	City of Seaside	Y	T15S/R1E-13Na	Y	?	Y	N
031-231-062	Coe Avenue Well	City of Seaside	Y	T15S/R1E-14Ma	Y	?	Y	N
011-181-014	Public Works Corp. Yard	City of Sand City	Y	T15S/R1E-22Ed	Y	?	Y	N
011-011-020	Cypress Pacific	Monterey Peninsula Engineering	Y	T15S/R1E-22Dd	Y	N	Y	N
011-236-010	Robinette -Design Ctr.	City of Sand City	Y	T15S/R1E-22Mc	Y	?	Y	N
011-041-043	(in front of Target)	DBO Development	Y	T15S/R1E-22Ce	Y	N	Ν	
011-061-022	MMP prod well	Mission Memorial Park	Y	T15S/R1E-23Ab	Y	Y	Ν	
011-061-022	PRTIW -operated by MMP	Mission Memorial Park	Y	T15S/R1E-23Ac	Y	N	Y	N
011-501-014-500		Security National Guaranty, Inc.	Y	T15S/R1E-15K1	Y	N	Y	N
011-532-005		Granite Rock Company	Y	T15S/R1E-22Eb	Y	?	Ν	
012-511-005	Shea Well	City of Del Rey Oaks	Y	T15S/R1E-26Mc	Y	N	Ν	
012-115-017	City #4	Seaside Municipal Water System	Y	T15S/R1E-23Gc	Y	?	Y	?
012-653-003	City #2	Seaside Municipal Water System	Y	T15S/R1E-23Pb	Y	?	N	
012-664-017	City #1	Seaside Municipal Water System	Y	T15S/R1E-23Lb	Y	?	N	
012-115-017	City #3	Seaside Municipal Water System	Y	T15S/R1E-23Ga	Y	?	Y	?
173-071-052	East Well (Lot #9)	CAW - Bishop Unit	Y	T16S/R2E-05Fa	Y	N	N	
173-072-034	well lot Bishop #1 (west)	CAW - Bishop Unit	Y	T16S/R2E-05Ea	Y	Y	N	
173-072-041	well lot Bishop #2 (east)	CAW - Bishop Unit	Y	T16S/R2E-05Fb	Y	Y	N	
416-111-002	Mutual	CAW - Hidden Hills Unit	Y	T16S/R2E-09Cb	Y	N	Ν	
416-111-004	Standex	CAW - Hidden Hills Unit	Y	T16S/R2E-09Cc	Y	N	N	
416-111-004	Bay Ridge	CAW - Hidden Hills Unit	Y	T16S/R2E-09Cd	Y	Y	N	
259-031-011	BB#7	CAW - Ryan Ranch #7	Y	T15S/R1E-36Nb	Y	Y	Ν	
259-031-012	RR#8	CAW - Ryan Ranch #8	Y	T16S/R1E-01Cb	Y	Y	N	
259-031-012	RR#11	CAW - Ryan Ranch #11	Ŷ	T16S/R1E-01Cd	Y	Y	N	
173-071-056	Old Main Gate (Lot #12)	Pasadera - New Cities Developme	Ŷ	T16S/R2E-05Mg	Ŷ	Y	N	
173-071-051	Paddock #1(Lot #11)	Pasadera - New Cities Developme	Ŷ	T16S/R2E-05Mf	Ŷ	N	N	
203-031-034	01-349	York School	Ŷ	T15S/R1E-36Qa	Ŷ	?	N	
173-071-048	(new #12)	Laguna Seca Golf Resort	Y	T16S/R2E-06Hb	Ŷ	Ŷ	N	
173-071-048	(racetrack)	Laguna Seca Golf Resort	Ý	T16S/R2E-06Ga	Ŷ	Ŷ	N	
	MD Boundaries		•			-	-	
173-011-025, -026		MPRPD	Y	T16S/R2E-05Gd	Y	?	Ν	
173-011-025, -026	,	MPRPD	Ŷ	T16S/R2E-05Ge	Ŷ	?	N	
			•					N or 2 -
					Y = 38	N or ? = 21	Y = 16	N or ? = 16

SEASIDE BASIN WATERMASTER REQUEST FOR SERVICE

DATE: January 1, 2021 RFS NO. 2021-01 . (To be filled in by WATERMASTER)

TO: <u>Martin Feeney</u> Martin Feeney PROFESSIONAL

FROM: <u>Robert Jaques</u>. WATERMASTER

Services Needed and Purpose:

Perform certain Tasks contained within the Watermaster's Monitoring and Management Plan for 2021 (See detailed Scope of Work in Attachment 1).

Completion Date: The work of this RFS No. 2021-01 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: <u>19,000.56</u> (See Attachment 2 for a Breakdown of this Total Price. Cost is authorized <u>only</u> when evidenced by signature below.)

Total Price may <u>not</u> 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:_____

Detailed Scope of Work for RFS No. 2021-01

Background:

The Watermaster Board approved the Budget for the 2021 Management and Monitoring Program Work Plan (hereinafter referred to as the "2021 M&MP Work Plan") at its meeting of October 7, 2020.

Scope of Work

This RFS No. 2021-01 authorizes PROFESSIONAL to perform the work described in PROFESSIONAL's Proposal for Hydrogeologic Services, dated July 20, 2020 and contained in <u>Attachment 2</u>, 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. Because the State Department of Parks and Recreation may be requiring PROFESSIONAL to carry additional insurance to perform this work under a new Right-of-Entry Permit, an additional \$500 has been included in the cost authorization in the event PROFESSIONAL incurs additional costs to obtain such insurance. 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 semi-annually in March and September.

Water Level

Water levels in each of the four Sentinel Wells will be continuously measured by data loggers and will be downloaded semi-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.

Martin B. Feeney Consulting Hydrogeologist P.G. 4634 C.E.G. 1454 C.Hg 145

July 20, 2020

Seaside Basin Watermaster PO Box 51502 Pacific Grove CA. 93950

Attention: Bob Jaques, PE

Subject:

Sentinel Well Data Collection Program 2021 – 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 are an outline of the data collection plan and an estimate of associated costs.

The data collection program for the Sentinel Wells will continue as it has been performed the last half of 2017. The data collection program currently includes semi-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:

- Semi-Annual down-loading of water level data logger.
- Semi-Annual induction logging (March and September)
- 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 alternate quarters. 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 \$ 18,500.56 inclusive of outside services. 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

07/20/20

	SENTINEL	WELLS LOGGING/S	AMPLING V	VL DATA C	OLLECTIO	ON PROG	RA	М
			2021					
					Semi- Annual	# per		
acific Surv			Unit Cost	Number	Cost	annum		nual Cos
Service (1085	1	1085	2	\$	2,170.0
Induction			0.75	5310	3982.5	2	\$	7,965.0
	neration/trans	mittal	115	1	115	2	\$	230.0
mileage			0.99	422	417.78	2	\$	835.5
per diem			175	2	350	2	\$	700.0
							\$	11,900.5
rofessiona	l Services (l	nrs)						
	ult Maintainar		175	4	700	1	\$	700.0
Supervis	e Logging/Do	wnload Data Loggers	175	10	1750	2	\$	3,500.0
	Induction Da		200	4	800	2	\$	1,600.0
Transmit	Water Level	Data	200	2	400	2	\$	800.0
							\$	6,600.0
						Total	\$	18,500.

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

Sincerely,

Martin B. Feeney

SEASIDE BASIN WATERMASTER REQUEST FOR SERVICE

DATE: January 1, 2021

RFS NO. <u>2021-02</u> (To be filled in by WATERMASTER)

TO: <u>Martin Feeney</u> 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, 2021.

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

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

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

Requested by:

_____ Date:_____.

Date: .

WATERMASTER Technical Program Manager

Agreed to by: _____

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. 2021-02 will only be provided when specifically requested by WATERMASTER.

The total cost authorized by this RFS No. 2021-02 is \$4,000.

SEASIDE BASIN WATERMASTER REQUEST FOR SERVICE

DATE: January 1, 2021

_ **RFS NO**. <u>2021-01</u> (To be filled in by WATERMASTER)

TO: <u>Gus Yates</u> 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, 2021.

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 <u>only</u> when evidenced by signature below.) (See <u>Attachment 1</u> for Estimated Costs).

Total Price may <u>not</u> 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:	
• • •		

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 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. 2021-01, including attending meetings either remotely or in-person as requested by WATERMASTER, will be billed at PROFESSIONAL's standard hourly rates for calendar year 2021, including all markups and other direct costs.

In addition to hourly labor costs, an allowance of \$500.00 is included in the estimated cost of this RFS to cover travel and other incidental costs associated with the performance of this work.

The total cost authorized by this RFS No. 2021-01 is \$4,000.00.

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

MEETING DATE: August 12, 2020	
AGENDA ITEM:	6
AGENDA TITLE:	Schedule
PREPARED BY:	Robert Jaques, Technical Program Manager

SUMMARY:

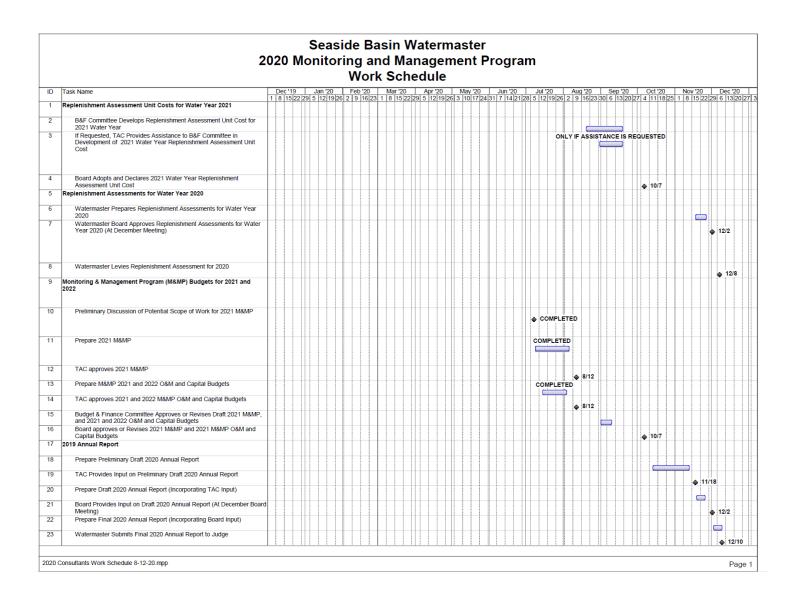
As a regular part of each monthly TAC meeting, I will provide the TAC with an updated Schedule of the activities being performed by the Watermaster, its consultants, and the public entity (MPWMD) which are performing certain portions of the work. Attached is the most recent updated schedule.

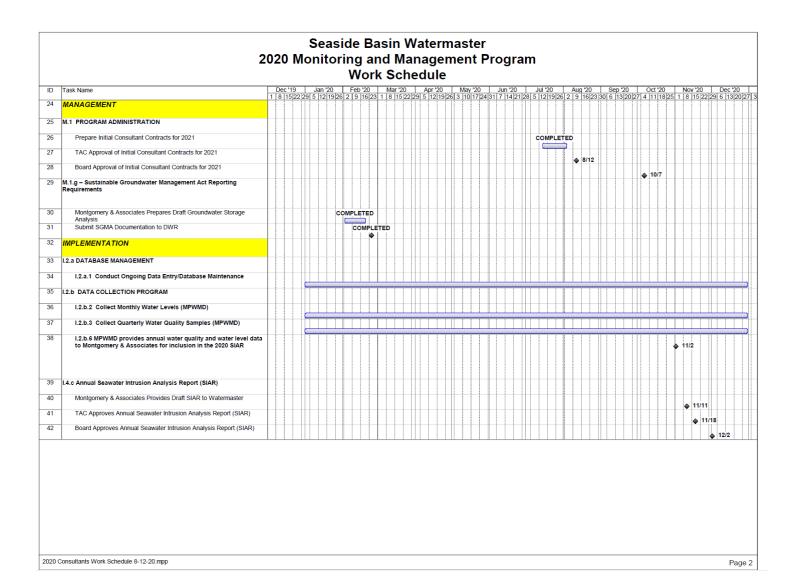
At the TAC's July meeting I said that I planned to present the proposed 2021 M&MP O&M and Capital Budgets, and the 2021 consultant contracts, for TAC approval at your September meeting. However, the consultants were able to more quickly provide me the information I needed to complete preparation of those items than I anticipated. Consequently, I was able to prepare those documents for TAC review and approval at today's meeting. This means that there should be no need to hold a TAC meeting in September after all.

We normally do not have a TAC meeting in October, so at this point it appears that the next need for a TAC meeting will be in the month of November. We normally hold that meeting on the third Wednesday, rather than the second Wednesday of the month, in order to provide sufficient time to complete preparation of the Seawater Intrusion Analysis Report. This means that the November meeting would be held on November 18.

If there are developments that warrant holding a TAC meeting sooner than that, I will send out a notification to that effect.

ATTACHMENTS: Schedule of Work Activities for FY 2020	
RECOMMENDED	Provide Input to Technical Program Manager Regarding Any
ACTION:	Corrections or Additions to the Schedules





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

MEETING DATE:	August 12, 2020	
AGENDA ITEM:	7	
AGENDA TITLE:	Other Business	
PREPARED BY:	Robert Jaques, Technical Program Manager	

SUMMARY:

The "Other Business" agenda item is intended to provide an opportunity for TAC members or others present at the meeting to discuss items not on the agenda that may be of interest to the TAC.

ATTACHMENTS:	None
RECOMMENDED ACTION:	None required – information only