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SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF MONTEREY

CALIFORNIA AMERICAN WATER, Plaintiff, v. CITY OF SEASIDE, et al., Defendant.	Case No. M66343 **SEASIDE BASIN WATERMASTER NOTICE OF FILING OF ANNUAL REPORT** Assigned for All Purposes to the Hon. Robert O' Farrell Action Filed: August 14, 2003
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT, Intervenor, v. MONTEREY PENINSULA WATER MANAGEMENT DISTRICT, Intervenor.	
AND RELATED CROSS-ACTIONS	

TO ALL PARTIES AND TO THEIR RESPECTIVE COUNSEL OF RECORD:

PLEASE TAKE NOTICE that Seaside Groundwater Basin Watermaster hereby files the Seaside Basin Watermaster Annual Report – 2020 ("Report"). The report is required to be filed on or

before January 15, 2021, consistent with the provision of the Decision in this action, as amended by the Order Amending Judgment filed March 29, 2018.

A copy of the main body of the Report will be served on each of the Parties by Seaside Groundwater Basin Watermaster along with a copy of this Notice.

DATED: January 26, 2021

BAKER MANOCK & JENSEN, PC

By: /s/ Christopher L. Campbell
Christopher L. Campbell
Attorneys for Seaside Groundwater Basin Watermaster

PROOF OF SERVICE

California American Water v. City of Seaside, et al.
M66343

STATE OF CALIFORNIA, COUNTY OF FRESNO

At the time of service, I was over 18 years of age and not a party to this action. I am employed in the County of Fresno, State of California. My business address is 5260 North Palm Avenue, Fourth Floor, Fresno, CA 93704.

On January 26, 2021, I served true copies of the following document(s) described as **SEASIDE BASIN WATERMASTER NOTICE OF FILING OF ANNUAL REPORT** on the interested parties in this action as follows:

SEE ATTACHED SERVICE LIST

BY MAIL: I enclosed the document(s) in a sealed envelope or package addressed to the persons at the addresses listed in the Service List and placed the envelope for collection and mailing, following our ordinary business practices. I am readily familiar with the practice of Baker Manock & Jensen, PC for collecting and processing correspondence for mailing. On the same day that correspondence is placed for collection and mailing, it is deposited in the ordinary course of business with the United States Postal Service, in a sealed envelope with postage fully prepaid. I am a resident or employed in the county where the mailing occurred. The envelope was placed in the mail at Fresno, California.

BY ELECTRONIC SERVICE: I electronically filed the document(s) with the Clerk of the Court by using the Odyssey electronic file and serve system. Participants in the case who are represented by counsel will be served by the Odyssey electronic file and serve system. Participants in the case who are not represented by counsel will be served by mail or by other means permitted by the court rules.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on January 26, 2021, at Fresno, California.

Tina L. Webb

SERVICE LIST
California American Water v. City of Seaside, et al.
M66343

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Seaside Groundwater Basin Watermaster

SEASIDE BASIN WATERMASTER

ANNUAL REPORT – 2020

December 3, 2020

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SEASIDE BASIN WATERMASTER

ANNUAL REPORT – 2020

Integral to the Superior Court Decision (Decision) rendered by Judge Roger D. Randall on March 27, 2006 is the requirement to file an Annual Report. This 2020 Annual Report is being filed on or before January 15, 2021, consistent with the provisions of the Decision, as amended by the Order Amending Judgment filed March 29, 2018.

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

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

A. Groundwater Extractions

The schedule summarizing the Water Year 2020 (WY 2020) groundwater production from all the producers allocated a Production Allocation in the Seaside Groundwater Basin is provided in Attachment 1, "Seaside Groundwater Basin Watermaster, Reported Quarterly and Annual Water Production from the Seaside Groundwater Basin for all Producers Included in the Seaside Basin Adjudication During Water Year 2020." Water Year 2020 is defined as beginning October 1, 2019 and ending on September 30, 2020.

B. Groundwater Storage

Monterey Peninsula Water Management District (MPWMD), in cooperation with California American Water (CAWC), operates the Seaside Basin Aquifer Storage and Recovery (ASR) program. Under the ASR program, CAWC diverts water from its Carmel River sources during periods of flow in excess of NOAA-Fisheries' bypass flow requirements, and transports the water through the existing CAWC distribution system for injection and storage in the Seaside Basin at the MPWMD's Santa Margarita ASR site and CAWC's Seaside Middle School ASR site. During WY 2020, 917 acre-feet was diverted and stored in the Seaside Basin under the ASR program. Rainfall in the area was about 83% of normal, and Carmel River flow was about 69% of normal.

Based upon production reported for WY 2020, the following Standard Producers are entitled to Free and Not-Free Carryover Credits to 2021 in accordance with the Decision, Section III. H. 5:

Producer	Free Carryover Credit (Acre-feet)	Not-Free Carryover Credit (Acre-feet)
Granite Rock	194.88	27.12

DBO Development	364.98	38.98 (-2.31 transfer)
Calabrese (Cypress)	14.91	1.58 (-3.17 transfer)
CAWC	00.00	00.00 (+5.48 transfer)
City of Seaside Muni	00.00	00.00

During Water Year 2020 the Watermaster did not indirectly engage in In-lieu Replenishment of the Basin. No non-native water was made available to the Basin during Water Year 2020 under the April 7, 2010 Memorandum of Understanding and Agreement entered into by Watermaster with the City of Seaside for its golf course irrigation program creating in-lieu replenishment water.

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

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

During Water Year 2020 the Watermaster did not indirectly engage in In-lieu Replenishment of the Basin. No non-native water was made available to the Basin during Water Year 2020 under the April 7, 2010 Memorandum of Understanding and Agreement entered into by Watermaster with the City of Seaside for its golf course irrigation program creating in-lieu replenishment water.

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

D. Leases or Sales of Production Allocation and Administrative Actions

As reported in the 2019 Annual Report, in WY2019 a transfer or assignment of water allocation was activated, as provided for in the Cypress Pacific Investors (CPI), successor to Muriel L. Calabrese 1987 Trust, front-loading delivery of water agreement that is contained in Attachment 14. Per the agreement, CPI leases to California American Water Company (CAWC) 8.0 AF of water (subject to reduction per the formulas in the Decision) for the purpose of producing such water from, or moving the production of such water to, the inland wells operated by CAWC and for delivery of such water by CAWC to one or more CPI properties. In Water Year 2016-17 CPI assigned its entire Standard Production Allocation water right to CAWC effective October 1, 2016.

As discussed in Attachment 13 of the 2018 Annual Report, in 2019 Security National Guarantee (SNG) indicated it intended to convert a portion of its Alternative Production

Allocation to Standard Production. However, SNG subsequently decided not to make such a conversion.

During WY 2020 the Watermaster Board did not make any revisions to its *Rules and Regulations*.

During WY 2020 the Watermaster Board was comprised of the following Members and Alternates:

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

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

The CAWC/MPWMD ASR Program operated in WY 2020 and 917 acre-feet of water was injected into the Basin as Stored Water Credits and 806 acre-feet was extracted.

As reported in the 2019 Annual Report, the Watermaster issued a Storage and Recovery Agreement to CAWC and MPWMD governing the injection and recovery of water from PWM. A copy of the agreement was included in Attachment 13 of the 2019 Annual Report. The quantities of water that were stored and recovered in accordance with that Agreement are reported in Attachment 10.

F. Violations of the Decision and Any Corrective Actions Taken

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

The Watermaster made its declaration regarding the availability of Artificial Replenishment Water, and the Total Usable Storage Space of the Basin, for WY 2020 at its Board meeting of December 4, 2019. Copies of these declarations are contained in Attachment 2. No water production reductions were implemented in WY 2020. However, in WY 2021 the Watermaster plans to implement a final ramp-down in production to achieve the Basin's Decision-established Natural Safe Yield of 3,000 AFY.

Total pumping for WY 2020 did not exceed the Operating Yield (OY) of the Basin, and exceeded the Natural Safe Yield (NSY) of the Basin by 323.14 acre-feet.

California American Water reported annual pumping quantities that exceeded its Standard Production NSY allocation by 334.21 acre-feet, and reported annual pumping quantities that exceeded its Operating Yield allocation by 229.63 acre-feet. The Watermaster will assess California American Water a Replenishment Assessment for this over production, as further described in Section H, below.

The City of Seaside reported annual pumping quantities that exceeded its Standard Production NSY allocation by 32.06 acre-feet, and reported annual pumping quantities that exceeded its Operating Yield allocation by 34.66 acre-feet. The City of Seaside did not exceed its Alternative Production NSY. The Watermaster will assess the City of Seaside a Replenishment Assessment for these over productions, as further described in Section H, below.

G. Watermaster Administrative Costs

The total estimated Administrative costs through the end of Fiscal Year 2020 amounted to $75,000 including a $25,000 dedicated reserve. Costs include the Administrative Officer salary and legal counsel fees. The "Fiscal Year 2020 Administrative Fund Report" and "Fiscal Year 2020 Operations Fund Report" are provided in Attachment 3.

H. Replenishment Assessments

At its meeting of September 2, 2020 the Watermaster Board determined that beginning with WY 2021 the Natural Safe Yield Replenishment Assessment unit cost should be updated to $2,947 per acre-foot, and the Operating Yield Replenishment Assessment unit cost should be updated to $737 per acre-foot. The Agenda transmittal which explains the basis of calculation for these new unit costs is contained in Attachment 4.

Alternative and Standard Producers report their production amounts from the Basin to the Watermaster on a quarterly basis. Based upon the reported production for WY 2020, CAWC's Replenishment Assessment for Overproduction in excess of its share of the Natural Safe Yield is $959,859, and for overproduction in excess of its share of the Operating Yield is $164,872.

Based upon the reported production for WY 2020, the City of Seaside's Replenishment Assessment for its Municipal System for Overproduction in excess of its share of the Natural Safe Yield is $92,089, and for overproduction in excess of its share of the Operating Yield is $24,886. The City of Seaside did not exceed its Alternative Production Allocation for its Golf Course System production. A summary of the calculations for

Replenishment Assessments for WY 2020 is contained in Attachment 5.

I. All Components of the Watermaster Budget

The Watermaster budget has four separate funds: Administrative Fund; Monitoring & Management–Operations; Monitoring and Management–Capital Fund and; Replenishment Fund. Copies of the budgets for Fiscal Year 2021 are contained in Attachment 6.

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

J. Water Quality Monitoring and Basin Management

Water Quality Analytical Results

Groundwater quality data continued to be collected and analyzed on a quarterly basis during WY 2020 from the enhanced network of monitoring wells. The low-flow sampling method implemented in 2009 continued to be used in 2020 and is expected to continue to be used in the future to improve the efficiency of sample collection.

As discussed in the 2013 Annual Report, the Watermaster reduced the frequency of water quality sampling at SBWM-MW5 (the shallow and deep monitoring wells located in the Northern Inland Subarea at Camp Huffman) to once every 3 years beginning in WY 2014. This was based on the January 2010 well construction report in which the well installation hydrogeologic consultant (Martin Feeney) recommended doing initial sampling annually for several years, then reducing the frequency of sampling once it was felt that the water chemistry had been established. Mr. Feeney suggested going to once every five years after initial water quality had been established. Starting with WY 2014 the Watermaster elected to go to once every three years as a more conservative approach.

In July 2020 the Watermaster reviewed the water quality sampling data from SBWM-MW5 for the period from WY 2013 to WY 2020. This review found that there were four sets of water quality sampling data from these shallow and deep wells, and that the sampling data was similar at each sampling event, demonstrating that an adequate baseline had been established. Based on this finding, the Watermaster determined that it was reasonable to reduce the sampling frequency to once every 5 years. Therefore, the next samples from SBWM-MW5 will be collected in WY 2022.

No modifications to the quarterly data collection frequency from the enhanced network of monitoring wells were made during WY 2020.

In prior years a separate water quality and water level report was prepared for the Watermaster by MPWMD, and included in the Annual Reports. Since this data is primarily used to prepare the Seawater Intrusion Analysis Report, beginning in 2019 the data was provided by MPWMD to Montgomery & Associates. Montgomery & Associates uses that data to prepare the water quality and water level report which is included as an attachment to the SIAR. The SIAR is further discussed below.

Monitoring and Management Program Work Plan for the Upcoming Year

The 2021 Monitoring and Management Program (M&MP) Work Plan contained in Attachment 9 includes the types of basin management activities conducted in prior years as well as revisions approved by the Board at its September 2, 2020 meeting.

Other than small changes due to changes in hourly rates for some of the consultants, the following are the principle differences between the 2020 M&MP and the 2021 M&MP, and their respective budgets:

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 the Technical Program Manager serves 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 Board increased the 2021 budget line-item for the Technical Program Manager by $10,000 from $50,000 to $60,000.

Tasks M.1.c, M.1.d, and M.1.e (On-call/as-needed Consulting Services): In 2020 a greater amount of assistance was needed 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, it was necessary to authorize an additional $5,000 to them in the fall of 2020, in order to ensure that funds were 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). It is anticipated that there may be an ongoing need for this higher level of services in 2021, and therefore their on-call consulting services allowance was increased by $4,000 for this 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 provided 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. The 2021 proposed cost includes a $50 annual cost to obtain this Permit. The Permit will likely need to be renewed at that cost each year.

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 above and beyond that which would be injected by the desalination plant or the PWM Expansion Project (depending on which of these moves forward to construction) and not extracted, in order to raise groundwater levels to protective elevations Basinwide.

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.

There are no Capital Projects anticipated in 2021.

Basin Management Database

Pertinent groundwater resource data obtained from a number of sources has been consolidated into the Watermaster's database to allow more efficient organization and data retrieval. No modifications or enhancements to the database are planned in FY 2021.

Enhanced Monitoring Well Network

The Seaside Basin M&MP uses an Enhanced Monitoring Well Network to fill in data gaps in the previous monitoring well network used by the Monterey Peninsula Water Management District (MPWMD), and others, in order to improve the basin management capabilities of the Watermaster. The Enhanced Monitoring Well Network has been described in detail in previous Watermaster Annual Reports. It continues to be used to obtain additional data that is useful to the Watermaster in managing the Basin.

Basin Management Action Plan (BMAP)

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

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

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

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

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

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

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

The Memo provided to the Watermaster Board all of the necessary background information and calculations for use in determining which of the two ramp-down figures (3,000 AFY or 2,913 AFY) should be used when the next (and presumably final) ramp-down occurs in WY 2021. At its meeting of June 5, 2019 the Watermaster Board

determined that there should be a final ramp-down to 3,000 AFY in WY 2021 and that water allocations to each Producer should be assigned as shown in Table 7 of Attachment 10 in the 2019 Annual Report, after all pumping ramp-downs have been completed. The Board reached this decision in part because ramping-down to 3,000 AFY would cause less hardship on the Alternative Producers by not requiring them to ramp-down along with the Standard Producers, and because ramping down to 2,913 AFY would provide negligible additional benefit and would require both the Standard and Alternative Producers to ramp-down.

In conjunction with updating the BMAP, Montgomery & Associates and Todd Groundwater (a hydrogeologic consultant the Watermaster used to perform a peer review of a draft version of the Updated BMAP) recommended that at some point in the future the Watermaster change to a different approach (Sustainable Yield) rather than continuing to use the Natural Safe Yield approach that was used in the Adjudication Decision, for basin management purposes. Attachment 11 in the 2019 Annual Report contains a discussion of the pros and cons of using the Sustainable Yield approach vs. the Natural Safe Yield approach. The Watermaster Board considered the information contained in that attachment at its June 5, 2019 meeting and made the following determinations:

- A Sustainable Yield analysis should not be performed at this time.
- The concept of using the Sustainable Yield approach to replace the Natural Safe Yield approach should be revisited after the Groundwater Sustainability Plan for the Monterey Subbasin of the Salinas Valley Groundwater Basin has been completed, and its impacts on the Seaside Groundwater Basin have been determined.
- If something is learned, or events occur, that would warrant performing a Sustainable Yield analysis sooner, the Board should revisit the decision at that time.

Development of the Groundwater Sustainability Plan for the Monterey Subbasin was started in 2020 and is expected to be completed in late 2021 or early 2022. Following completion of that Groundwater Sustainability Plan, the Watermaster intends to revisit the issue of changing to the Sustainable Yield approach.

Seawater Intrusion Response Plan

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

The Final SIRP was approved by the Watermaster Board in 2009 and a summary of the Seawater Intrusion Contingency Actions from the SIRP were contained in Attachment 10 of the 2009 Annual Report. The complete document may be viewed and downloaded from the Watermaster's website at: http://www.seasidebasinwatermaster.org/. No modifications to the SIRP were made in 2020.

Seawater Intrusion Analysis Report

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

seawater intrusion in the nearby Salinas Valley all suggest that seawater intrusion could occur in the Seaside Groundwater Basin.

The Watermaster retained Montgomery & Associates to prepare the WY 2020 SIAR required by the M&MP. The WY 2020 SIAR provided an analysis of data collected during that Water Year.

Based on an evaluation of geochemical indicators in prior years, seawater intrusion has not historically been observed in existing monitoring and production wells in the Seaside Basin. However, the 2020 SIAR reported that in Water Year 2020 for the first time, what may be a precursor to seawater intrusion was detected in two monitoring wells experiencing increasing chloride concentrations. These are monitoring wells FO-9 Shallow and FO-10 Shallow. These wells are both in relatively close proximity to known intrusion in the Salinas Valley, but are inland of the Watermaster's four Sentinel Wells where induction logging showed no indication of seawater intrusion. Based on these chloride concentration increases, the SIAR recommended that:

- Monitoring well FO-10 Shallow be immediately resampled to confirm the 48 mg/L chloride increase that was found in the last 2020 sample taken from this well. (Note: Resampling was done on November 10, 2020 and the chloride level in that sample was 90.2 mg/L. This confirmed the increase found in the September 2020 sample, in which the chloride level was 89.9 mg/L).

- Monitoring wells FO-9 Shallow and FO-10 Shallow's sampling frequency be increased to quarterly and that their groundwater quality results be reviewed after each sampling event to identify if the recent increases are part of natural fluctuations or an ongoing increasing trend. Monitoring well FO-9 Shallow is currently monitored on a semi-annual basis, increased from annual sampling, because an increasing chloride trend had previously been observed. Monitoring well FO-10 Shallow is currently monitored on an annual basis.

The SIAR is lengthy, but the full *Executive Summary Section* from it is provided in Attachment 8. A complete copy of the document is posted for viewing and downloading from the Watermaster's website at: http://www.seasidebasinwatermaster.org/. All recommendations contained in the SIAR are being or will be carried out and are included in the budgeted activities contained in Attachment 6 and described in Attachment 9.

Geochemical Impact Assessments

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

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

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

In 2020 no additional geochemical impact assessments needed to be performed, since the Monterey Peninsula Water Supply Project was still in the process of obtaining the permits necessary to move forward with that project.

Sustainable Groundwater Management Act (SGMA)

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

At the State Level:

During 2020 DWR did not issue any new regulations, or revisions to prior regulations, that impacted the Seaside Groundwater Basin or the Watermaster. In March of 2020 the Watermaster submitted to DWR the reporting information required of it, as an adjudicated basin, under SGMA.

At the Monterey County level:

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

In its notification to DWR, the City of Marina proposed becoming the GSA for the portion of the 180/400-foot Subbasin lying within the City's jurisdictional boundaries. However, since this overlapped with the SVBGSA's proposal to be the GSA for that area, DWR concurred with the SVBGSA's proposal, as authorized by SGMA, to have the County of Monterey be the GSA for that area. The County then delegated authority to

prepare the Groundwater Sustainability Plan (GSP) for that area to the SVBGSA. The SVBGSA submitted its GSP for the 180/400-foot Subbasin to DWR in January 2020.

With regard to the proposals by both MCWD and the SVBGSA to be the GSA for portions of the Monterey Subbasin, the result was agreement between the MCWD GSA and the SVBGSA to break the Monterey Subbasin into two Management Areas, described as follows:

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

The MCWD GSA and the SVBGSA agreed to work together to develop a single GSP for the Monterey Subbasin, as required by SGMA, with each of these two entities preparing the portion of that GSP to address their respective Management Areas.

In 2020 MCWD began development of a GSP for the Marina-Ord Area portion of the Monterey subbasin. DWR determined that this subbasin is not critically overdrafted and therefore has a GSP submittal deadline two years later (January 2022) than the deadline for critically overdrafted subbasins. The Watermaster is participating in the stakeholder group the MCWD GSA has formed to provide input during development of this GSP.

In 2020 the SVBGSA began development of a GSP for the Corral de Tierra Area portion of the Monterey subbasin. DWR determined that this subbasin is not critically overdrafted and therefore has a GSP submittal deadline two years later (January 2022) than the deadline for critically overdrafted subbasins. The Watermaster is participating in the Monterey Subbasin GSP Committee that the SVBGSA has formed to provide input during development of this GSP. In 2020 the Watermaster's Technical Program Manager, jointly with Montgomery & Associates, made a PowerPoint presentation to that Committee describing issues of mutual concern between the Corral de Tierra area and the Seaside Groundwater Basin. The presentation highlighted the impacts that pumping in the Corral de Tierra area is having on groundwater levels in the Laguna Seca Subarea of the Seaside Basin.

In addition, the Watermaster is participating in the development of the SVBGSA's other GSPs through its membership on the SVBGSA's Advisory Committee.

The Watermaster's participation in these committees and stakeholder groups will help to ensure that there is close coordination between the SVBGSA, MCWD GSA, and the Watermaster on matters of mutual interest.

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

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

the topic headings below, which were requested by the Court in its March 29, 2018 Order.

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

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

In summary, the *2020 Seawater Intrusion Analysis Report*, which analyzes the water quality data collected under the Watermaster's sampling program, reported that while seawater intrusion has not historically been observed in existing monitoring and production wells in the Seaside Basin, in Water Year 2020 for the first time, what may be a precursor to seawater intrusion was detected in two monitoring wells experiencing increasing chloride concentrations. That report contained recommendations for investigating this, and those recommendations will be implemented during WY 2021. The 2019 updated *Basin Management Action Plan* found that in spite of recent pumping at levels less than the Decision-established Natural Safe Yield of 3,000 AFY, water levels in some portions of the Basin are continuing to drop. It is expected that once the MPWSP becomes operational, or if that project is not constructed but an expansion of the PWM project is constructed, and CAWC is able to further reduce its pumping from the Basin by 700 AFY through its 25-year overpumping repayment program, the rate of drop in groundwater levels will be at least partially mitigated.

Planned Near and Long-term Actions of the Watermaster

Near-term actions are described in the 2020 Monitoring and Management Program discussed in Section J and Attachment 9 of this Annual Report.

Long-term actions will include:

- Continuing to carry out the duties and responsibilities assigned to the Watermaster by the Decision
- Continuing to coordinate with the Monterey County Water Resources Agency in their development of an updated hydrogeologic model of the Salinas Valley Basin, as discussed under the *Coordination of Watermaster's Seaside Groundwater Model with Salinas River Basin Model* subheading in Section J of the 2018 Annual Report (Note: In 2020 completion of this model was delayed and was still being completed as of the date of preparation of this 2020 Annual Report. The Watermaster will continue to coordinate with the Monterey County Water Resources Agency on this, once the model is completed and promulgated.)
- Continuing to coordinate with the Salinas Valley Basin Groundwater Sustainability Agency to develop measures to aid in groundwater management of the Laguna Seca Subarea, as discussed under the *Sustainable Groundwater Management Act* subheading in Section J of this Annual Report.

Information Concerning the Status of Regional Water Supply Issues

MPWSP

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

In mid-November 2019 the California Coastal Commission held a hearing on CAWC's application for a Coastal Development Permit for construction of the portions of the MPWSP located within the coastal zone. The Commission received public input at that hearing but deferred taking action on the application until early 2020. That action was originally scheduled for the Commission's May 2020 meeting, but was rescheduled to a September 2020 meeting by Commission staff, who stated that they needed more time to adequately evaluate all of the documents that had been submitted. Just prior to the scheduled September 2020 Commission meeting date, CAWC decided to withdraw its application in order to see if it could negotiate with the opposing parties modifications to the project that would address their concerns and objections. CAWC stated it intended to resubmit its application within a few months. On November 5, 2020 CAWC formally resubmitted its application for a Coastal Development Permit with the Coastal Commission. Approval by the Coastal Commission is the last major permit needed to allow construction of the project to begin.

Detailed quarterly update reports on the MPWSP are posted on the MPWSP website at https://www.watersupplyproject.org. However, the second quarter 2020 update on that website (the most recent update as of the date of preparation of this 2020 Annual Report) did not provide any updated schedule for the project. The last update of the schedule appears to have been made when CAWC anticipated getting its Coastal Development Permit approved in December 2018. If the Coastal Commission approves the Coastal Development Permit in the first quarter of 2021, and if the same time periods for implementation of the project which are shown on the last updated schedule are accurate, the MPWSP could become operational in the fall of 2023.

PWM

Construction work on Monterey One Water's (M1W) Pure Water Monterey (PWM) recycled water project in Marina was completed in late 2019, and the Advanced Water Treatment plant began producing water in early 2020. Water began being injected into the Seaside Groundwater Basin in February 2020. M1W experienced some problems with the shallow injection wells (called vadose zone injection wells) shortly after it began injecting water into the Basin. It was found that some subsidence was occurring at these shallow wells, and also that it was not possible to inject the amounts of water in these shallow wells that was expected. As a result, M1W is performing rehabilitation of the wells where subsidence was occurring, and is designing two additional deep injection wells in order to bring the PWM injection capacity up to the intended levels. Those new deep injection wells are planned to be completed in late 2021, at which time the PWM project is expected to be able to inject approximately 3,500 AFY of advanced treated recycled water into the Seaside Basin for subsequent recovery and service to CAWC customers.

Public Buyout of CAWC Water System

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

At its November 2019 meeting MPWMD reviewed and discussed a preliminary valuation assessment and cost of service evaluation regarding the feasibility of securing and maintaining public ownership of CAWC's Monterey Water System. The preliminary valuation assessment consisted of completion of a preliminary desktop valuation assessment of the Monterey Water System to estimate the cost required to be incurred to acquire the Monterey Water System. The cost of service analysis was completed to compare the cost of public ownership, operation, and maintenance of the Monterey Water System (i.e. the public ownership scenario) with a status quo scenario, which is the anticipated cost of continued ownership, operation, and maintenance of the system by CAWC. The cost of service analysis was compared in terms of the annual Monterey Water System revenue requirements and typical residential customer bill impacts associated with the various scenarios that were developed.

The preliminary valuation assessment and cost of service evaluation concluded that acquisition of the Monterey Water System by MPWMD appeared to be economically feasible. Economic feasibility was assessed by comparing the estimated revenue requirements of the water system under MPWMD ownership versus CAW ownership, which indicated significant revenue requirement savings could be achieved under the MPWMD ownership scenarios.

In order to prepare the MPWMD Board to consider in the future a Resolution of Public Necessity for the potential acquisition of CAWC's Monterey Water System, the Monterey County Local Agency Formation Commission (LAFCO) must allow MPWMD to activate certain latent powers authorized by its legislation, as well as consider annexation of approximately 56 parcels to MPWMD. LAFCO will require CEQA findings, action by MPWMD, and a filing of a Notice of Determination with the State. As a step toward fulfilling CEQA requirements, at its October 29, 2020 meeting the MPWMD Board certified a Final Environmental Impact Report (FEIR) for the Potential Acquisition of Monterey Water System and District Boundary Adjustment. Certification of this FEIR does not commit MPWMD to a hearing on a Resolution of Necessity or a condemnation proceeding, both of which would be required steps in the public acquisition process.

Management Activities that May Bear on the Basin's Wellbeing

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

2. *Storm Water and Recycled Water*. Storm water and recycled water are both components of the Pure Water Monterey (PWM) project that is being implemented by Monterey One Water. CAWC has already contracted to receive 3,500 AFY of PWM recycled water for injection into, and recovery from, the Seaside Basin. Monterey One Water, in coordination with others, is looking at the potential to expand the delivery capacity of the PWM project by using additional sources of recycled water and storm water, and in late 2019 completed preparation of a Supplemental Environmental Impact Report (SEIR) to fulfill the CEQA requirements for such an expansion. However, at its April 2020 meeting the M1W Board voted not to certify the SEIR. Although further

consideration of that matter may occur at some point in the future, M1W staff reported that at the time of preparation of this 2020 Annual Report, no action by M1W was in progress or scheduled to resume consideration of that matter, and certification had still not occurred.

At its October 19, 2020 meeting, the MPWMD Board of Directors considered seeking to become the lead agency for the expansion project, in order to move forward with getting the SEIR certified. At that meeting, on a split vote, the Board determined not to pursue becoming the lead agency. From the discussion of Board members at that meeting, it appeared that this issue might again come before them for consideration, depending on future actions by M1W and on the outcome of the November 3, 2020 general election in which several seats on the MPWMD Board were up for election.

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

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

5. *New Technical Issues or Activities.*

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

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

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

Of the seven priority projects that were identified in the Stormwater Resource Plan, at this time one project has been scheduled to receive funding to proceed. The Del Monte Manor project for the City of Seaside is lined up to receive IRWMP funds later this year and move forward with their Final Design, Environmental Review, and then Construction.

In addition, the City of Sand City has also been awarded IRWMP funds to proceed with their Green Streets initiative in downtown Sand City. Although this project was not a top priority project in the Stormwater Resource Plan, it was a project identified in the plan and was eligible for State funding.

The City of Monterey is awaiting the appropriate funding opportunity to proceed with the Hartnell Gulch stormwater diversion project.

- Reduction in Pumping in the Laguna Seca Subarea

In late 2020 CAWC completed construction of an intertie pipeline that will enable it to serve the customers in its Bishop and Ryan Ranch Units in the Laguna Seca Subarea with water from its Main System. Once this pipeline is placed into service, expected to occur before the end of 2020, CAWC will discontinue pumping from the Laguna Seca Subarea to serve those customers. This is expected to reduce total pumping from the Laguna Seca Subarea by about 28%.

L. Conclusions and Recommendations

The Seaside Basin Watermaster Board has worked diligently to meet all of the Court's established deadline dates. All of the Phase 1 Scope of Work activities, which are described in the "Implementation Plan for the Seaside Basin Monitoring and Management Program" dated March 7, 2007, have been completed. At the Watermaster Board meeting held on September 2, 2020 the Board adopted the FY 2021 budgets contained in Attachment 6, which support carrying out all elements of the 2021 Seaside Groundwater Basin Monitoring and Management Program (M&MP). The M&MP is contained in Attachment 9 and describes the activities that the Watermaster plans to conduct during Fiscal Year 2021.

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

As of the date of preparation of this 2020 Annual Report no future status conferences with the Court have been scheduled.

LISTING OF ACRONYMS USED IN THIS ANNUAL REPORT

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

ATTACHMENT 1

GROUNDWATER EXTRACTIONS

SEASIDE GROUNDWATER BASIN WATERMASTER

Reported Quarterly and Annual Water Production From the Seaside Groundwater Basin
For All Producers Included in the Seaside Basin Adjudication -- Water Year 2020

(All Values in Acre-Feet [AF])

	Type	Oct	Nov	Dec	Oct-Dec 19	Jan	Feb	Mar	Jan-Mar 20	Apr	May	Jun	Apr-Jun 20	Jul	Aug	Sep	Jul-Sep 20	Reported Total	Yield Allocation	from WY 2019	for WY 2020
Coastal Subareas																					
CAW - Coastal Subareas	SPA	376.33	272.21	148.59	**797.13**	89.04	0.00	131.05	**220.09**	204.23	116.76	161.01	**482.00**	322.26	0.38	-1.15	**321.49**	**1,820.71**	1,791.62	136.23	1,927.84
Luzern		0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	**0.00**	34.84	15.22	54.90	**104.96**	**104.96**			
Ord Grove		90.22	73.80	75.89	**239.91**	35.40	0.00	54.56	**89.95**	75.61	15.28	0.00	**90.89**	0.00	116.80	118.88	**235.69**	**656.45**			
Paralta		139.56	51.43	53.31	**244.30**	34.15	0.00	76.50	**110.64**	127.01	101.42	153.41	**381.84**	151.79	129.29	89.83	**370.92**	**1,107.70**			
Playa		26.68	14.82	14.08	**55.59**	0.00	0.00	0.00	**0.00**	0.00	0.00	1.95	**1.95**	28.65	9.67	22.80	**61.12**	**118.66**			
Plumas		18.39	0.00	0.00	**18.39**	19.50	0.00	0.00	**19.50**	1.61	0.00	5.65	**7.26**	7.59	0.00	0.00	**7.59**	**52.74**			
Santa Margarita		101.48	132.16	5.31	**238.94**	0.00	0.00	0.00	**0.00**	0.00	0.05	0.00	**0.05**	152.55	159.71	123.42	**435.68**	**674.67**			
ASR Recovery		0.00												(53.15)	(430.32)	(322.58)	**(806.05)**				
PWM Recovery		0.00												0.00	0.00	(88.41)	**(88.41)**				
City of Seaside (Municipal)	SPA	17.69	14.60	13.85	**46.13**	12.34	13.68	13.18	**39.21**	13.34	16.73	16.39	**46.46**	16.97	17.28	15.59	**49.84**	**181.65**	146.99	0.00	146.99
Granite Rock Company	SPA	--	--	--	**0.00**	--	--	--	**0.00**	--	--	--	**0.00**	--	--	--	**0.00**	**0.00**	13.87	222.00	235.87
DBO Development No. 30	SPA	--	--	--	**0.00**	--	--	--	**0.00**	--	--	--	**0.00**	--	--	--	**0.00**	**0.00**	25.16	403.96	429.12
Calabrese (Cypress Pacific Inv.)	SPA	--	--	--	**0.00**	--	--	--	**0.00**	--	--	--	**0.00**	--	--	--	**0.00**	**0.00**	3.37	16.29	19.66
City of Seaside (Golf Courses)	APA	53.68	21.08	0.00	**74.77**	0.32	27.56	17.62	**45.50**	29.81	81.15	93.15	**204.11**	100.37	68.15	44.10	**212.62**	**537.00**	540.00		540.00
Sand City	APA	0.16	0.12	0.02	**0.31**	0.00	0.08	0.08	**0.17**	0.17	0.13	0.14	**0.44**	0.15	0.14	0.14	**0.44**	**1.36**	9.00		9.00
SNG (Security National Guaranty)	APA	0.05	0.06	0.04	**0.15**	0.00	0.03	0.03	**0.06**	0.00	0.01	0.00	**0.01**	0.00	0.03	0.00	**0.03**	**0.26**	149.00		149.00
Calabrese (Cypress Pacific Inv.)	APA	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	**0.00**	**0.00**	6.00		6.00
Mission Memorial (Alderwoods)	APA	2.22	1.42	0.00	**3.64**	0.00	0.13	0.12	**0.25**	0.37	2.19	3.22	**5.78**	3.42	3.59	3.32	**10.33**	**20.00**	31.00		31.00
Coastal Subareas Totals					**922.13**				**305.28**				**738.80**				**594.75**	**2,560.97**	**2,716.00**	**778.48**	**3,494.48**
Laguna Seca Subarea																					
CAW - Laguna Seca Subarea	SPA	34.90	28.14	19.44	**82.48**	18.79	21.69	22.59	**63.07**	21.18	27.94	34.65	**83.76**	36.58	36.88	33.99	**107.45**	**336.76**	0.00		0.00
Ryan Ranch Unit		6.35	4.52	3.88	14.75	3.62	4.03	3.84	11.49	2.96	1.30	4.57	**8.83**	5.76	5.40	5.04	16.20	51.27			
Hidden Hills Unit		13.35	10.82	7.60	31.77	7.47	8.27	8.90	24.64	9.02	12.45	13.73	**35.20**	13.65	13.86	13.42	40.93	132.54			
Bishop Unit 3		7.58	5.77	3.50	16.86	3.28	4.10	3.61	11.00	4.20	6.05	8.79	**19.04**	9.02	7.53	7.45	23.99	70.89			
Bishop Unit 1		7.62	7.03	4.45	19.10	4.42	5.28	6.24	15.94	5.01	8.13	7.56	**20.70**	8.15	10.09	8.09	26.33	82.07			
The Club at Pasadera	APA	19.00	9.00	0.00	**28.00**	1.00	4.00	6.00	**11.00**	7.00	31.00	38.00	**76.00**	42.00	28.00	29.00	**99.00**	**214.00**	251.00		251.00
Laguna Seca Golf Resort (Bishop)	APA	24.14	12.06	0.00	**36.20**	0.00	2.24	2.51	**4.75**	1.70	24.87	28.85	**55.43**	32.55	26.47	19.56	**78.58**	**174.96**	320.00		320.00
York School	APA	1.69	1.02	0.00	**2.71**	0.00	0.93	0.62	**1.55**	0.29	2.00	4.06	**6.34**	2.54	2.52	1.73	**6.79**	**17.39**	32.00		32.00
Laguna Seca County Park	APA	1.54	1.77	0.65	**3.97**	0.79	0.87	0.75	**2.41**	0.40	1.52	1.34	**3.26**	1.78	5.31	2.32	**9.42**	**19.06**	41.00		41.00
Laguna Seca Subarea Totals					**153.35**				**82.78**				**224.80**				**301.24**	**762.17**	**644.00**	**0.00**	**644.00**
Total Production by WM Producers					**1,075.48**				**388.06**				**963.60**				**896.00**	**3,323.14**	**3,360.00**	**778.48**	**4,138.48**
										Annual Production from APA Producers								984.01	1,379.00		
										Annual Production from SPA Producers								2,339.12	2,759.48		

CAW / MPWMD ASR (Carmel River Basin source water)																		***Previous Balance***	***Total***
Injection	256.69	0.00	0.00	**256.69**	160.76	0.00	166.28	**327.04**	312.80	19.96	0.00	**332.76**	0.00	0.00	0.00	0.00	**916.49**		
(Recovery)	0.00			**0.00**	0.00			**0.00**				**0.00**	(53.15)	(430.32)	(322.58)	**(806.05)**	**(806.05)**		
Net ASR	256.69			**256.69**				**0.00**				**0.00**				**0.00**	110.44	**735.49**	**845.93**
Pure Water Monterey (PWM) Injection and Cal-Am Recovery																			
Injection Operating Reserve	0.00	0.00	0.00	**0.00**	0.00	59.43	172.51	**231.93**	179.15	176.59	150.92	**506.65**	155.12	159.56	0.00	**314.68**	**1053.27**	**0.0**	**1053.27**
Injection Drought Reserve	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	**0.00**	**0.00**	**0.0**	**0.00**
Storage	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	**0.00**	0.00	0.00	88.41	**88.41**	**88.41**	**0.0**	**88.41**
(Recovery)	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	**0.00**	0.00	0.00	(88.41)	**(88.41)**	**(88.41)**	**0.0**	**(88.41)**

Notes:

1. The Water Year (WY) begins October 1 and ends September 30 of the following calendar year. For example, WY 2020 begins on October 1, 2019, and ends on September 30, 2020.
2. "Type" refers to water right as described in Seaside Basin Adjudication decision as amended, signed February 9, 2007 (Monterey County Superior Court Case No. M66343).
3. Values shown in the table are based on reports to the Watermaster received by October 15, 2020.
4. All values are rounded to the nearest hundredth of an acre-foot. Where required, reported data were converted to acre-feet utilizing the relationships: 325,851 gallons = 43,560 cubic feet = 1 acre-foot.
5. "Base Operating Yield Allocation" values are based on Seaside Basin Adjudication decision. These values are consistent with the *Watermaster Producer Allocations Water Year 2020* (see Item VIII.B. in 12/4/2019 Board packet).
6. Any minor discrepancies in totals are attributable to rounding.
7. APA = Alternative Producer Allocation; SPA = Standard Producer Allocation; CAW = California American Water.
8. It should be noted that CAW/MPWMD ASR "Injection" and "Recovery" amounts are not expected to "balance" within each Water Year. This is due to the injection recovery "rules" that are part of SWRCB water rights permits and/or separate agreements with state and federal resources agencies that are associated with the water rights permits.

ATTACHMENT 2

WATERMASTER DECLARATION
OF
NON-AVAILABILITY
OF
ARTIFICIAL REPLENISHMENT WATER

NOTICE TO ALL SEASIDE GROUNDWATER PRODUCERS:

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

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

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

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

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

Section III.L.3.j.iii: Watermaster declares that for Water Year 2020 Artificial Replenishment Water is not available to offset Operating Yield Over-Production and producers are limited in production to the following quantities of water:

Coastal Subarea Alternative Producers:

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

Laguna Seca Subarea Alternative Producers:

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

Coastal Subarea Standard Producers:

California American Water.....	1,922.36 acre-feet*
Seaside (Municipal)	146.99 acre-feet**
Granite Rock	235.87 acre-feet***
D.B.O. Development 30	429.12 acre-feet****
Cypress (Calabrese).....	19.66 acre-feet*****

Laguna Seca Subarea Standard Producers:

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

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* Total is the 2020 base allocation of 1,791.62 acre-feet plus 130.75 of not free carryover. California American Water has a positive balance of 590.71 acre-feet of stored water credit at WY-end 2019 from Basin extractions exceeding injections since WY 2010 under the CAW/MPWMD ASR Program, formalized through a Storage Agreement in 2012.

** Total is the 2020 base allocation of 146.99 acre-feet.

*** Total includes 194.88 acre-feet of "free" carryover and 27.12 acre-feet of "not-free" carryover credit from previous water years ***capped at the producers storage allocation of 222.0 acre-feet***, plus the 2020 base allocation of 13.87 acre-feet.

**** Total includes 364.98 acre-feet of "free" carryover plus 38.98 acre-feet of "not-free" carryover credit from previous water years ***capped at the producers storage allocation of 403.96 acre-feet***, plus the 2020 base allocation of 25.16 acre-feet.

***** Total includes 14.65 acre-feet of "free" carryover and 1.64 acre-feet of "not-free" carryover credit from previous water years plus the 2020 base allocation of 3.37 acre-feet.

NOTICE TO ALL SEASIDE GROUNDWATER PRODUCERS

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

Total Usable Storage Space in the Coastal and Northern Inland Subareas is 31,770 acre-feet.
Total Usable Storage Space in the Laguna Seca Subarea is 20,260 acre-feet.
Total Usable Storage Space in the entire Seaside Groundwater Basin is 52,030 acre-feet.

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

	Current Allocation (Using Table 1 of the Decision)		
Producer	**Operating Yield Allocation Percentage (1)**	**Usable Storage Allocation Percentage (2)**	**Useable Storage Allocation (acre-feet)**
Coastal and Northern Inland Subareas			
California American Water(3)	77.55%	90.44%	28,733
City of Seaside (Municipal)	6.36%	7.42%	2,357
Granite Rock Company	0.60%	0.70%	222
DBO Development No. 27	1.09%	1.27%	404
Calabrese (Cypress Pacific Investors LLC)	0.15%	0.17%	54
SUBAREAS TOTAL	**85.75%**	**100.00%**	**31,770**
Laguna Seca Subarea			
California American Water (3)	45.13%	100.00%	20,260
SUBAREA TOTAL	**45.13%**	**100%**	**20,260**
BASIN TOTAL		**100%**	**52,030**

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

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

February 3, 2010
Revised January 15, 2015

ATTACHMENT 3

WATERMASTER ADMINISTRATIVE AND OPERATIONS COSTS

Seaside Groundwater Basin Watermaster

Budget vs. Actual Administrative Fund

Fiscal Year (January 1 - December 31, 2020)
Balance through October 31, 2020

	2020 Adopted Revised Budget	Contract Amount	Year to Date Revenue / Expenses
Available Balances & Assessments			
Dedicated Reserve	-		-
FY (Rollover)	37,000.00		37,097.87
Admin Assessments	63,000.00		63,000.00
Available	**100,000.00**		**100,097.87**
Expenses			
Contract Staff	50,000.00	50,000.00	35,000.00
Legal Advisor	25,000.00		
Filing fees and postage			-
Total Expenses	**75,000.00**	**50,000.00**	**35,000.00**
Total Available	25,000.00		
Dedicated Reserve	25,000.00		25,000.00
Net Available	**-**		**40,097.87**

Seaside Groundwater Basin Watermaster 12/2/20

Budget vs. Actual Monitoring & Management - Operations Fund

Fiscal Year (January 1 - December 31, 2020)

Balance through October 31, 2020

	2020 Amended Budget	Contract Encumbrance	Year to Date Revenue/Expenses
Available Balances & Assessments			
Operations Fund Assessment	$ 164,000.00	$ -	$ 163,966.99
Pass Through	-	3,915.00	1,024.50
Cost Share Reimbursement	-	-	-
FY 2019 Rollover	51,967.00	-	168,250.62
Total Available	**$ 215,967.00**	**$ 3,915.00**	**$ 333,242.11**
Appropriations & Expenses			
GENERAL			
Technical Project Manager*	$ 60,000.00	$ 60,000.00	$ 44,625.00
Contingency @ 10% (not including TPM)	5,088.00	-	-
Total General	**$ 65,088.00**	**$ 60,000.00**	**$ 44,625.00**
CONSULTANTS (Montgomery; Web Site Database)			
Program Administration	$ 13,000.00	$ 15,400.00	$ 12,670.00
Production/Lvl/Qlty Monitoring	2,400.00		
Basin Management	30,000.00		-
Seawater Intrusion Analysis Report	24,130.00	24,130.00	-
Total Consultants	**$ 69,530.00**	**$ 39,530.00**	**$ 12,670.00**
MPWMD			
Production/Lvl/Qlty Monitoring	$ 52,906.00	52,906.00	15,486.00
Pass Through 2018	-	3,915.00	1,116.00
Basin Management	-		-
Seawater Intrusion	1,192.00	1,192.00	-
Direct Costs	-	-	-
Total MPWMD	**$ 54,098.00**	**$ 58,013.00**	**$ 16,602.00**
CONTRACTOR (Martin Feeney)			
Hydrogeologic Consulting Services	$ 4,000.00	4,000.00	1,200.00
Production/Lvl/Qlty Monitoring	19,251.00	19,250.56	9,985.66
	$ 23,251.00	**$ 23,250.56**	**$ 11,185.66**
CONTRACTOR (Todd Groundwater)			
Hydrogeologic Consulting Services	**$ 4,000.00**	**$ 4,000.00**	-
Total Appropriations & Expenses	**$ 215,967.00**	**$ 184,793.56**	**$ 85,082.66**
Total Available	-		**248,159.45**

*As amended 9/2/20 $10,000 budget transfer from Contingency to Technical Program Manager

ATTACHMENT 4

UPDATED REPLENISHMENT ASSESSMENT UNIT COSTS

SEASIDE GROUNDWATER BASIN
WATERMASTER

TO: Board of Directors

FROM: Robert S. Jaques, Technical Program Manager

DATE: August 20, 2020

SUBJECT: Discuss/Consider Recommendation to the Watermaster Board to Approve the Proposed Replenishment Assessment Unit Costs for Natural Safe Yield and Operating Yield Overproduction

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RECOMMENDATIONS:
Adopt a Replenishment Assessment Natural Safe Yield Unit Cost of $2,947/AF and an Operating Yield Unit Cost of $737/AF for Water Year 2021 which begins on October 1, 2020 and ends on September 30, 2021.

BACKGROUND:
Per page 33 of the Decision, "The per acre-foot (AF) amount of the Replenishment Assessments shall be determined and declared by Watermaster in October of each Water Year in order to provide Parties with advance knowledge of the cost of Over-Production in that Water Year." Thus, the per acre-foot amount determined by the Board on or before October of 2020 will be used to calculate Replenishment Assessments for pumping that occurs during Water Year 2021 which begins on October 1, 2020 and ends on September 30, 2021.

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

DISCUSSION
At its August 18, 2020 meeting, the Budget and Finance Committee was presented, and discussed, the attached Table which includes updated cost data for one of the three projects, the Pure Water Monterey Project. The proponents of the Cal Am desalination project and the Regional Urban Water Augmentation Project reported that the previously used cost data had not been updated, and that the previously used unit costs should still be used. In that Table a blended unit cost value is provided for the Monterey Peninsula Water Supply Project based on a reduced size desalination plant offset by water to be provided by the Pure Water Monterey Project. Based on the updated Pure Water Monterey Project's unit cost, the blended unit cost for that combined project was updated from $4,591/AF to $4,817/AF.

The Table also includes updated "Potential Dates Replenishment Water Could Become Available."

During the Budget and Finance Committee meeting, it was noted that the ASR Expansion Project unit cost might also need to be updated. MPWMD reported that if the figure needed to be updated, it would provide the updated figure to Mr. Jaques. Subsequent to the Budget and Finance Committee meeting, MPWMD reported that it would be appropriate to continue using the $2,025 per acre-foot unit cost that had been previously provided by them for the Seaside Basin ASR Expansion Project. Thus, there was no need to revise the Replenishment Assessment unit cost figure from that which had been presented at the Budget and Finance Committee meeting.

Therefore, the updated Natural Safe Yield Unit Cost that is recommended for use in Water Year 20201 is $2,947/AF, calculated as: ($4,817+$2,025+$2,000)/3. These are the three **bold-faced** unit costs in the attached Table. The Operating Yield Over Production Replenishment Assessment Unit Cost is 25% of that amount, or $737.

ATTACHMENTS

1. Updated Unit Cost Data Table
2. Water Year 2014 Unit Cost Data
3. Water Year 2017 Unit Cost Data

Updated Unit Cost Table

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

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

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

FOOTNOTES:

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

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

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

(6,250x$6,147 + 3,500x$2,442)/9,750 = **$4,817**.

(4) Base unit cost data provided by MPWMD in 2016 and confirmed as still applicable in August 2020. The 1,000 AFY of potential water that this project could supply would be in addition to the 1,300 AFY included as part of the Monterey Peninsula Water Supply Project, and would be an annual average taking into account river flow and hydrologic conditions that change from year to year.

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

(6) Base unit cost based on information provided by Dave Stoldt of MPWMD as reported in the Carmel Pine Cone in early August 2020, and confirmed during Budget and Finance Committee meeting on August 18, 2020.

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

ANTICIPATED UNIT COSTS OF REPLENISHMENT WATER FOR THE SEASIDE BASIN

POTENTIAL SOURCE OF REPLENISHMENT WATER	POTENTIAL DATE REPLENISH-MENT WATER COULD BECOME AVAILABLE	POTENTIAL VOLUME OF WATER THAT COULD BE SUPPLIED BY THE PROJECT (AFY) [1]	LEVEL OF PROJECT DEVELOP-MENT	CONTINGENCY INCLUDED IN BASE UNIT COST [2] (%)	BASE UNIT COST ($/AF)	BASE UNIT COST YEAR	ADDITIONAL CONTINGENCY ADDED TO REFLECT LEVEL OF PROJECT DEVELOPMENT [3] (%)	UNIT COST INCLUDING ADDITIONAL CONTINGENCY ($/AF)	UNIT COST INFLATED @ 3% FROM COST BASIS YEAR TO YEAR REPLENISH-MENT WATER COULD BECOME AVAILABLE ($/AF)	VOLUME-WEIGHTED AVG %
Monterey Peninsula Water Supply Project (Regional Desalination) [4]	2018	9,752	Project Report	30%	$3,507	2012	0%	$3,507	$4,188	56.53%
Seaside Basin ASR Expansion [5]	2015	1,000	Conceptual	11%	$1,800	2012	39%	$2,502	$2,734	5.80%
Regional Urban Water Augmentation Project [6]	2017	3,000	Design	5%	$2,000	2013	10%	$2,200	$2,476	17.39%
Groundwater Replenishment Project (GWRP) [7]	2017	3,500	Conceptual	50%	$3,500	2017	0%	$3,500	$3,500	20.29%
Total Quantity of Replenishment Water (AFY) the Listed Projects Could Cumulatively Potentially be Able to Produce Within the Next 10 Years [8] =										**17,252**

FOOTNOTES:

(1) For the Monterey Peninsula Water Supply Project this is the total amount of water from this source which could potentially come to the CAW distribution system. Only a portion of this amount might be available as initially unused capacity that could be used to help replenish the Seaside Basin. For the RUWAP this is the total amount of water from this source. Only a portion of this amount might be used for in-lieu replenishment of the Seaside Basin. For the ASR Expansion Project this is the additional amount of water that could potentially be provided by this project (see footnote 5). For the RUWAP this is the total amount of water that this project is expected to produce. Only a portion of this amount might be used as in-lieu replenishment of the Seaside Basin. For the GWRP this is the quantity of water that is being considered at this time by CAW for inclusion in its Monterey Peninsula Water Supply Project.

(2)(3) The following Contingency percentages were considered reasonable for the indicated levels of project development: Conceptual Level - 50%, Project Report Level - 30%, and Design Level - 15%. The sum of the values in the columns titled "Contingency Included in Base Unit Cost" and "Additional Contingency Added to Reflect Level of Project Development" equals the Contingency appropriate for the project's level of development.

(4) Project data based on documents provided by Cal Am and MPWMD.

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

(6) Project data provided by MCWD.

(7) Project data provided by MRWPCA. MRWPCA reported that the GWRP quantity being used in the current CEQA documentation is 3,500 AFY, but that the project could potentially supply 6,500 AFY or more. The unit cost would be lower if a quantity larger than 3,500 AFY were produced.

(8) This value is the cumulative production capacity of all of the Potential Sources of Replenishment Water that listed in this table, and is used only to determine the "Volume-Weighted Average." It is not the amount of water that is expected to be available to the Seaside Basin.

TABLE 2

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

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

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

FOOTNOTES:

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

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

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

(4) Project data provided by MCWD.

ATTACHMENT 5

REPLENISHMENT ASSESSMENT CALCULATIONS FOR WY 2020

WATERMASTER PRODUCER ALLOCATIONS WATER YEAR 2020 IN ACRE-FEET (AF)

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

Initial Basin-Wide Operating Yield[1]	**3360.00**	**Coastal Operating Yield[1]**	**2716.00**
Natural Safe Yield (NSY)[2]	**3000.00**	**Laguna Seca Operating Yield[1]**	**644.00**

ALTERNATIVE PRODUCER ALLOCATIONS

Coastal Subarea[3]	AF	Laguna Seca Subarea[3]	AF
Seaside (Golf)	540.00	Nicklaus Club Monterey	251.00
SNG	149.00	Bishop	320.00
Calabrese	6.00	York School	32.00
Mission Memorial (Alderwood)	31.00	Laguna Seca County Park	41.00
Sand City	9.00		
Total[1]	**735.00**	**Total[1]**	**644.00**

ALTERNATIVE PRODUCER AMOUNT PUMPED WY 2020

Coastal Subarea[3]	AF	Laguna Seca Subarea[3]	AF	
Seaside (Golf)	537.00	The Club at Pasadera	214.00	
SNG	0.26	Bishop	174.96	
Calabrese	0.00	York School	17.39	
Mission Memorial (Alderwood)	20.00	Laguna Seca County Park	19.06	**Total Alternative Producer WY 2020 Production**
Sand City	1.35			
Total[1]	**558.61**	**Total[1]**	**425.41**	**984.02**

STANDARD PRODUCER ALLOCATIONS

Coastal Operating Yield Available to Standard Producers (AF)			**1981.00**	**Laguna Seca Operating Yield Available to Standard Producers (AF)**			**0.00**
Coastal Subarea	**Standard Producer Allocations**		**AF Available to This Producer**	**Laguna Seca Subarea**	**Standard Producer Allocations**		**AF Available to This Producer**
	Base Water Right %[4]	**Weighted %[5]**			**Base Water Right %[4]**	**Weighted %[5]**	
California American Water (CAW)	77.55%	90.44%	1791.62	CAW	45.13%	100.00%	0.00
Seaside (Municipal)	6.36%	7.42%	146.99				
Granite Rock	0.60%	0.70%	13.87				
D.B.O. Development No. 30	1.09%	1.27%	25.16				
Calabrese (Cypress Pacific Investors LLC)	0.15%	0.17%	3.37				
Total	**85.75%**	**100.0%**	**1981.00**	**Total**	**45.13%**	**100.0%**	**0.00**

Allocation of Available Operating Yield Among Standard Producers	**Base Water Right Available to this Producer (AF)**	**% NSY to SPA (Base Water Right ./. Total Water Right)**	**NSY Available to Producers (AF) Current Water Year**	**Free Carryover Credits from Prior Water Year**	**Not-Free Carryover Credits from Prior Water Year**	**Water Rights Transferred / Sold DBO to CAW 710 Amador (0.16) DBO to CAW 2 Upper Ragsdale (2.15)**	**Water Rights Transferred / Sold Calabrese to CAW Ryan Ranch CHOMP**	**Total Producer NSY (AF) (NSY Available + Free Carryover Credits)**	**Total Authorized Production Current WY (Base Water Right Plus All Carryover)[6]**	**Actual AF Pumped by Producer in WY 2020**	**Free Carry over Credits to WY 2021**	**Not-Free Carry over Credits to WY 2021**	**Stored Water Credits to WY 2021**
		NSY 3000 - 984.01 AF =	WY 2020 APA Pumped 984.01 AF **2015.99**										
California American Water	1791.62	90.44%	1823.26	0.00	130.75	2.31	3.17	1828.74	1927.84	2157.47	0.00	0.00	845.93
Seaside (Municipal)	146.99	7.42%	149.59	0.00	0.00	0.00	0.00	149.59	146.99	181.65	0.00	0.00	0.00
Granite Rock	13.87	0.70%	14.11	194.88	27.12	0.00	0.00	208.99	235.87	0.00	208.99	13.01	0.00
D.B.O. Development No. 30	25.16	1.27%	25.60	364.98	38.98	(2.31)	0.00	388.27	426.81	0.00	388.27	15.69	0.00
Calabrese (Cypress Pacific Investors LLC)	3.37	0.17%	3.43	14.65	1.64	0.00	(3.17)	14.91	16.49	0.00	14.91	1.58	0.00
Total	**1981.00**	**100.00%**	**2015.99**	**574.50**	**198.49**	**0.00**	**0.00**	**2590.49**	**2754.00**	**2339.12**	**612.17**	**30.28**	**845.93**

Footnotes:

(1) From page 17 of Exhibit A (Amended Decision)of Court Order filed February 9, 2007.

(2) From page 14 of Exhibit A (Amended Decision)of Court Order filed February 9, 2007.

(3) From page 21 of Exhibit A (Amended Decision)of Court Order filed February 9, 2007.

(4) From Table 1 on page 19 of Exhibit A (Amended Decision) of Court Order filed February 9, 2007.

(5) Calculated from the Base Water Right percentages in the adjacent column. Any discrepancy in totals is due to rounding.

(6) Base Water Right plus Free and Not Free Carryover Credit = 2018 Production Allocation capped at storage allocation (see 2018 Declaration from 12/6/2017 Watermaster board meeting)

Note: Calabrese (Cypress Pacific Investors LLC) opted to convert 8AF of its 14AF Alternative Production Allocation to Standard Production Allocation on January 22, 2015 (notice filed by Cypress with Superior Court).

Producers carryover is capped at their storage capacity.

CALCULATION OF REPLENISHMENT ASSESSMENTS WATER YEAR 2020

Using the Basin-wide methodology approved by the Court on January 12, 2007, and as shown in detail on the spreadsheet contained in this attachement, Watermaster calculated the Water Year (WY) (October 1st through September 30th) 2020 Replenisment Assessments as follows:

	2020 Replenishment Assessment NSYO Unit Charge =					$2,872.00			
	2020 Replenishment Assessment OSYO Unit Charge =					$718.00			
2020 Natural Safe Yield (NSY) Available to Standard Producers =						2,015.99	AF (3,000 AF NSY - 984.01 Alternative Producers 2020 Production)		
Standard Producers	**WY 2020 Production (AF)**	**% of NSY Available**	**Volume of NSY Available (AF)**	**NSY Overproduction (AF)**	**NSY Overproduction Assessment**	**Operating Yield Available (AF)**	**Operating Yield Overproduction (AF)**	**Operating Yield Overproduction Assessment**	**Total Assessment**
California American Water	2,157.47	90.44%	1,823.26	334.21	$ 959,859.26	1,927.84	229.63	$ 164,871.96	$ 1,124,731.22
Seaside (Municipal)	181.65	7.42%	149.59	32.06	92,088.74	146.99	34.66	24,886.10	116,974.84
Granite Rock	-	0.70%	14.11	-	-	235.87	-	-	-
D.B.O. Development No. 30	-	1.27%	25.60	-	-	426.81	-	-	-
Calabrese (Cypress Pacific Inv.)	-	0.17%	3.43	-	-	16.49	-	-	-
Total Production	**2,339.12**	**100.00%**	2,015.99	**366.28**	**$ 1,051,947.99**	**2,754.00**	**264.29**	**$ 189,758.06**	**$ 1,241,706.05**
Alternative Producers	**WY 2020 Production (AF)**	**% of NSY Available**	**Volume of NSY Available (AF)**	**NSY Overproduction (AF)**	**NSY Overproduction Assessment**	**Operating Yield Available (AF)**	**Operating Yield Overproduction (AF)**	**Operating Yield Overproduction Assessment**	**Total Assessment**
City of Seaside (Golf Courses)	537.00	N/A	540.00	0.00	$ -	540.00	0.00	$ -	$0
Security National Guaranty	0.26	N/A	149.00	0.00	-	149.00	0.00	-	-
Calabrese (Cypress Pacific Inv.)	-	N/A	6.00	0.00	-	6.00	0.00	-	-
Mission Memorial (Alderwoods)	20.00	N/A	31.00	0.00	-	31.00	0.00	-	-
City of Sand City	1.35	N/A	9.00	0.00	-	9.00	0.00	-	-
Nicklaus Club Monterey	214.00	N/A	251.00	0.00	-	251.00	0.00	-	-
Laguna Seca Golf Resort (Bisho	174.96	N/A	320.00	0.00	-	320.00	0.00	-	-
York School	17.39	N/A	32.00	0.00	-	32.00	0.00	-	-
Laguna Seca County Park	19.06	N/A	41.00	0.00	-	41.00	0.00	-	-
Total Production	**984.02**	**N/A**	**1,379.00**	**0.00**	**$ -**	**1,379.00**	**0.00**	**$ -**	**$0**

ATTACHMENT 6

WATERMASTER BUDGETS FOR 2021

Seaside Groundwater Basin Watermaster
Administrative Fund
Proposed Budget August 18, 2020
Administrative Year 2021

	2020 Adopted Budget	2020 Estimated Total	2021 Proposed Budget
Assessment Income			
Reserve/Rollover*	$ 37,000	$ 50,000	$ 38,000
Administrative Assessment	63,000	63,000	62,000
Totals	100,000	113,000	100,000
Expenditures			
Contractual Services - Administrative	50,000	40,000	50,000
Legal Services	25,000	10,000	25,000
Total Expenses	75,000	50,000	75,000
Total Available	25,000	63,000	25,000
Less Reserve	25,000	25,000	25,000
Net Available	$ -	$ 38,000	$ -

** Note: The reserve/rollover balance of $38,000 was determined upon completion by Watermaster staff of a detailed reconciliation from 2006 through July 2020 of the Administrative Fund financial records held at the Watermaster office against the Administrative Fund financial records held by the City of Seaside - the Watermaster fiscal agent.*

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

Task	Subtask	Sub-Subtask	Cost Description	CONSULTANTS & CONTRACTORS[3] MPWMD	Private Consultants	Contractors	Total	Comparative Costs from 2020 Budget
			Labor					
			Technical Project Manager	$0	$60,000	$0	$60,000	$50,000
M.1 Program Administration								
	M.1.a		Project Budget and Controls	$0	$0	$0	$0	$0
	M.1.b		Assist with Board and TAC Agendas	$0	$0	$0	$0	$0
	M.1.c, M.1.d, & M.1.e		Preparation for and Attendance at Meetings and Peer Review of Documents and Reports[8]	$0	$23,000	$0	$23,000	$19,000
	M.1.f		QA/QC	$0	$0	$0	$0	$0
	M.1.g		SGMA Documentation Preparation	$0	$2,320	$0	$2,320	$2,000
I.1 Initial Phase 1 Monitoring Well Construction (Task Completed in Phase 1)								
I.2 Production, Water Level and Quality Monitoring								
	I. 2. a.		Database Management					
		I. 2. a. 1.	Conduct Ongoing Data Entry/ Database Maintenance/Enhancement[15]	$14,604	$2,400	$0	$17,004	$17,004
		I. 2. a. 2.	Verify Accuracy of Production Well Meters	$0	$0	$0	$0	$0
	I. 2. b.		Data Collection Program					
		I. 2. b. 1.	Site Representation and Selection[7]	$0	$0	$0	$0	$0
		I. 2. b. 2.	Collect Monthly Water Levels[6]	$3,726	$0	$0	$3,726	$3,726
		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	$42,801
		I. 2. b. 4.	Update Program Schedule and Standard Operating Procedures.	$0	$0	$0	$0	$0
		I. 2. b. 5.	Monitor Well Construction[7]	$0	$0	$0	$0	$0
		I. 2. b. 6.	Reports	$2,086	$0	$0	$2,086	$2,086
		I. 2. b. 7.	CASGEM Data Submittal for Watermaster's Voluntary Wells	$5,960	$0	$0	$5,960	$8,940
I.3 Basin Management								
	I. 3. a.		Enhanced Seaside Basin Groundwater Model	(Costs Shown in Subtasks Below)				
		I. 3. a. 1	Update the Existing Model[11]	$0	$0	$0	$0	$0
		I. 3. a. 2	Develop Protective Water Levels[12]	$0	$0	$0	$0	$0
		I. 3. a. 3	Evaluate Replenishment Scenarios and Develop Answers to Basin Management Questions[10]	$0	$70,000	$0	$70,000	$20,000
	I. 3. b.		Complete Preparation of Basin Management Action Plan	$0	$0	$0	$0	$0
	I. 3. c.		Refine and/or Update the Basin Management Action Plan	$0	$0	$0	$0	$0
	I. 3. d		Evaluate Coastal Wells for Cross-Aquifer Contamination Potential	$0	$0	$0	$0	$0
	I. 3. e		Seaside Basin Geochemical Model[13]	$0	$10,000	$0	$10,000	$10,000
I.4 Seawater Intrusion Contingency Plan								
	I. 4. a.		Oversight of Seawater Intrusion Detection and Tracking	$0	$0	$0	$0	$0
	I. 4. b.		Provide focused area hydrogeologic investigation for Sand City Public Works Well[16]	$0	$0	$0	$0	$0
	I. 4. c.		Annual Report- Seawater Intrusion Analysis	$1,192	$26,310	$0	$27,502	$25,322
	I. 4. d.		Complete Preparation of Seawater Intrusion Response Plan[2][16]	$0	$0	$0	$0	$0
	I. 4. e.		Refine and/or Update the Seawater Intrusion Response Plan[2] [9]	$0	$0	$0	$0	$0
	I. 4. f.		If Seawater Intrusion is Determined to be Occurring, Implement Contingency Response Plan[2]	(No Costs are Included for This Task, as This Task Will Likely Not be Necessary During 2021. If it Does Become Necessary, Use of Contingency Funds or a Budget Modification Will Likely be Necessary)				
			TOTALS CONSULTANTS & CONTRACTORS	**$51,118**	**$194,030**	**$18,551**		
			SUBTOTAL not including Technical Program Manager =				$203,699	$150,879
			Contingency (not including Technical Program Manager) @ 10%[4]=				$20,370	$15,088
			Technical Program Manager =				$60,000	$50,000
			TOTAL=				**$284,069**	**$215,967**

Footnotes:

(1) Under this Subtask the Watermaster will directly contract with an outside contractor to perform the Sentinel Well induction logging work, and to also collect water level data in conjunction with doing the induction logging. MPWMD will perform the other portions of the work of this

(2) The response plan would only be implemented in the event sea water intrusion is determined to be occurring.

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

(4) Due to the uncertainties of the exact scopes of some of the larger Tasks listed above at the time of preparation of this Budget it is recommended that a Contingency of approximately 10% be included in the Budget.

(5) The MPWMD portion of this Task includes $1,000 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 miitgation 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.

Seaside Groundwater Basin Watermaster
Fiscal Year 2021 Monitoring & Management Plan
Capital Fund Budget

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

										ITEM 1.D.
			Seaside Groundwater Basin Watermaster							9/3/20
			Replenishment Fund							
	Water Year 2021 (October 1 - September 30) / Fiscal Year (January 1 - December 31, 2021)									PAGE ONE
			Proposed 2021 Budget							
Replenishment Fund	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	
Assessments:	WY 05/06	WY 06/07	WY 07/08	WY 08/09	WY 09/10	WY 10/11	WY 11/12	WY 12/13	WY 13/14	
Unit Cost:	$1,132 / $283	$1,132 / $283	$2,485 / 621,25	$3,040 / $760	$2,780 / $695	$2,780 / $695	$2,780 / $695	$2,780 / $695	$2,702 / $675,50	
Cal-Am Water Balance Forward	**$ -**	**$ 1,641,004**	**$ 4,226,710**	**$ (2,871,690)**	**$ (2,839,939)**	**$ (3,822,219)**	**$ (6,060,164)**	**$ (8,735,671)**	**$ (6,173,771)**	
Cal-Am Water Production	**3710.0 AF**	**4059.9 AF**	**3862.9 AF**	**2966.0 AF**	**3713.5 AF**	**3416.0 AF**	**3070.9 AF**	**3076.6 AF**	**3232.1 AF**	
Exceeding Natural Safe Yield Considering Alternative Producers	2,106,652	2,565,471	5,199,014	3,773,464	4,112,933	3,187,854	2,280,943	2,380,842	2,790,539	
Operating Yield Overproduction Replenishment	-	20,235	8,511	-	-	-	154,963	181,057	281,012	
Total California American	**$ 2,106,652**	**$ 2,585,706**	**$ 5,207,525**	**$ 3,773,464**	**$ 4,112,933**	**$ 3,187,854**	**$ 2,435,907**	**$ 2,561,899**	**$ 3,071,550**	
CAW Credit Against Assessment	(465,648)		(12,305,924)	$ (3,741,714)	(5,095,213)	(5,425,799)	(5,111,413)	-	-	
CAW Unpaid Balance	***$ 1,641,004***	***$ 4,226,710***	***(2,871,690)***	***$ (2,839,939)***	***$ (3,822,219)***	***$ (6,060,164)***	***$ (8,735,671)***	***$ (6,173,771)***	***$ (3,102,221)***	
City of Seaside Balance Forward	**$ -**	**$ 243,294**	**$ 426,165**	**$ 1,024,272**	**$ 1,619,973**	**$ 891,509**	**$ (110,014)**	**$ (773,813)**	**$ (1,575,876)**	
City of Seaside Municipal Production	**332.0 AF**	**387.7 AF**	**294.3 AF**	**293.4 AF**	**282.9 AF**	**240.7 AF**	**233.7 AF**	**257.7 AF**	**223.6 AF**	
Exceeding Natural Safe Yield Considering Alternative Producers	219,689	174,082	402,540	465,300	314,721	141,335	163,509	236,782	142,410	
Operating Yield Overproduction Replenishment	12,622	85	4,225	16,522	20,690	-	1,689	27,007	3,222	
Total Municipal	232,310	174,167	406,764	481,823	335,412	141,335	165,198	263,788	145,631	
City of Seaside - Golf Courses										
Exceeding Natural Safe Yield - Alternative Producer	-	-	131,705	69,701	-	-	-	-	-	
Operating Yield Overproduction Replenishment	-	-	32,926	17,427						
Total Golf Courses	-	-	164,631	87,128	-	-	-	-	-	
Total City of Seaside*	**$ 232,310**	**$ 174,167**	**$ 571,395**	**$ 568,951**	**$ 335,412**	**$ 141,335**	**$ 165,198**	**$ 263,788**	**$ 145,631**	
City of Seaside Late Payment 5%	10,984	8,704	26,712	26,750	15,737					
In-lieu Credit Against Assessment	-		-	$ -	(1,079,613)	(1,142,858)	(828,996)	(1,065,852)	(1,459,080)	
City of Seaside Unpaid Balance	***$ 243,294***	***$ 426,165***	***$ 1,024,272***	***$ 1,619,973***	***$ 891,509***	***$ (110,014)***	***$ (773,813)***	***$ (1,575,876)***	***$ (2,889,325)***	
Total Replenishment Fund Balance	**$ 1,884,298**	**$ 4,652,874**	**$ (1,847,417)**	**$ (1,219,966)**	**$ (2,930,710)**	**$ (6,170,178)**	**$ (9,509,483)**	**$ (7,749,648)**	**$ (5,991,546)**	
Replenishment Fund Balance Forward	**-**	**$ 1,884,298**	**$ 4,652,874**	**$ (1,847,417)**	**$ (1,219,966)**	**$ (2,930,710)**	**$ (6,170,178)**	**$ (9,509,483)**	**$ (7,749,648)**	
Total Replenishment Assessments	2,349,946	2,768,576	5,805,632	4,369,165	4,464,082	3,329,189	2,601,104	2,825,688	3,217,182	
Total Paid and/or Credited	(465,648)	-	(12,305,924)	(3,741,714)	(6,174,826)	(6,568,657)	(5,940,409)	(1,065,852)	(1,459,080)	
Grand Total Fund Balance	**$ 1,884,298**	**$ 4,652,874**	**$ (1,847,417)**	**$ (1,219,966)**	**$ (2,930,710)**	**$ (6,170,178)**	**$ (9,509,483)**	**$ (7,749,648)**	**$ (5,991,546)**	

		Seaside Groundwater Basin Watermaster							ITEM 1.D.
		Replenishment Fund							9/2/20
	Water Year 2021 (October 1 - September 30) / Fiscal Year (January 1 - December 31, 2021)								PAGE TWO
		Proposed 2021 Budget							
Replenishment Fund	**2015**	**2016**	**2017**	**2018**	**2019**	**Estimated 2020**	**Totals WY 2006 Through 2020**	**Budget WY 2021**	**Projected Totals Through WY 2021**
Assessments:	WY 14/15	WY 15/16	WY 16/17	WY 17/18	WY 18/19	WY 19/20		WY 20/21	
Unit Cost:	$2,702 / $675.50	$2,702 / $675.50	$2,872 / $718	$2,872 / $718	$2,872 / $718	$2,872 / $718		$2,947 / $737	
Cal-Am Water Balance Forward	**$ (3,102,221)**	**$ (676,704)**	**$ (676,704)**	**$ (491,747)**	**$ (48,797,949)**	**$ (47,979,851)**		**$ (47,859,851)**	
Cal-Am Water Production					**2120.22 AF**				
Exceeding Natural Safe Yield Considering Alternative Producers	2,113,414	-	184,957	1,075,995	818,097	100,000	$ 32,690,175	100,000	$ 32,790,175
Operating Yield Overproduction Replenishment	312,103	-	-	-	-	20,000	977,881	20,000	997,881
Total California American	**$ 2,425,516**		**$ 184,957**	**$ 1,075,995**	**$ 818,097**	**$ 120,000**	**$ 33,668,056**	**$ 120,000**	**$ 33,788,056**
CAW Credit Against Assessment	-	-		(49,382,196)	-		(81,527,907)		(81,527,907)
CAW Unpaid Balance	***$ (676,704)***	***$ (676,704)***	***$ (491,747)***	***$ (48,797,949)***	***$ (47,979,851)***	***$ (47,859,851)***	***$ (47,859,851)***	***$ (47,739,851)***	***$ (47,739,851)***
City of Seaside Balance Forward	**$ (2,889,325)**	**$ (3,346,548)**	**$ (3,232,420)**	**$ (3,142,500)**	**$ (3,022,249)**	**$ (2,919,806)**		**$ (2,809,806)**	
City of Seaside Municipal Production	**223.6 AF**	**185.01 AF**							
Exceeding Natural Safe Yield Considering Alternative Producers	69,630	102,330	87,512	93,225	79,893	100,000	$ 2,792,956	100,000	$ 2,892,956
Operating Yield Overproduction Replenishment	38	11,959	2,409	27,026	22,550	10,000	160,043	10,000	170,043
Total Municipal	69,667	114,290	89,920	120,251	102,443	110,000	2,952,999	110,000	3,062,999
City of Seaside - Golf Courses									
Exceeding Natural Safe Yield - Alternative Producer	-	-	-	-	-	-	201,406	-	201,406
Operating Yield Overproduction Replenishment	-	-	-	-	-	-	50,353	-	50,353
Total Golf Courses	-	-	-	-	-	-	251,759	-	251,759
Total City of Seaside*	**$ 69,667**	**$ 114,290**	**$ 89,920**	**$ 120,251**	**$ 102,443**	**$ 110,000**	**$ 3,204,758**	**$ 110,000**	**$ 3,314,758**
City of Seaside Late Payment 5%							88,887		88,887
In-lieu Credit Against Assessment	(526,890)	(162)	-	-	-	-	(6,103,451)	-	(6,103,451)
City of Seaside Unpaid Balance	***$ (3,346,548)***	***$ (3,232,420)***	***$ (3,142,500)***	***$ (3,022,249)***	***$ (2,919,806)***	***$ (2,809,806)***	***$ (2,809,806)***	***$ (2,699,806)***	***$ (2,699,806)***
Total Replenishment Fund Balance	**$ (4,023,252)**	**$ (3,909,125)**	**$ (3,634,247)**	**$ (51,820,198)**	**$ (50,899,657)**	**$ (50,669,657)**	**$ (50,669,657)**	**$ (50,439,657)**	**$ (50,439,657)**
Replenishment Fund Balance Forward	**$ (5,991,546)**	**$ (4,023,252)**	**$ (3,909,125)**	**$ (3,634,247)**	**$ (51,820,198)**	**$ (50,899,657)**		**$ (50,669,657)**	
Total Replenishment Assessments	2,495,183	114,290	274,877	1,196,246	920,540	230,000	36,961,701	230,000	**37,191,701**
Total Paid and/or Credited	(526,890)	(162)	-	(49,382,196)	-	-	(87,631,358)	-	**(87,631,358)**
Grand Total Fund Balance	**$ (4,023,252)**	**$ (3,909,125)**	**$ (3,634,247)**	**$ (51,820,198)**	**$ (50,899,657)**	**$ (50,669,657)**	**(50,669,657)**	**$ (50,439,657)**	**$ (50,439,657)**

ATTACHMENT 7

STORAGE AND RECOVERY AGREEMENT WITH THE CITY OF SEASIDE

AGREEMENT FOR STORAGE AND RECOVERY OF NON-NATIVE WATER FROM THE SEASIDE GROUNDWATER BASIN

THIS AGREEMENT is made and entered into on February 5, 2020, by and between the SEASIDE BASIN WATERMASTER (the "WATERMASTER") and the City of Seaside (the "CITY") as follows:

Recitals

1. The WATERMASTER was created by the decision, as amended, entered in the case, California American Water Company v. City of Seaside, et al. Monterey County Superior Court, filed February 9, 2007, Case No. M66343 (the "Decision"). This Decision was made for the purposes of managing and protecting the Seaside Groundwater Basin ("Basin") for the benefit of the businesses, individuals, and public agencies that overlie or extract groundwater from the Basin. The CITY is a party to the Decision.

2. In February of 2010, the WATERMASTER, in accordance with Section III.L.3.j.xix and III.H.2 of the Decision, allocated 2,361 acre-feet of Storage in the Coastal and Northern Inland Subareas to the CITY. In accordance with Section III.H.3 of the Decision, the CITY may use its Storage Allocation for the benefit of its customers and for other purposes as the CITY deems appropriate.

3. Section III.H.1 of the Decision states that the Parties shall be permitted to utilize available Storage space for "bona fide Groundwater Storage Projects". Section III.H.6. provides that the City has the right to store water by "Direct Injection, Spreading, or other artificial means so long as such Storage does not cause Material Injury to any other Party."

4. On June 5, 2019, the CITY applied to the WATERMASTER for permission to store water in the Basin and to recover the stored water the Basin, through an in-lieu storage program.

5. On October 25, 2019, the Court determined that as presented the CITY'S application for in lieu water storage was consistent with the terms of the Decision and California law and policy.

6. Under the authorities granted to the WATERMASTER by the Decision, on December 5, 2019 the WATERMASTER approved the application of the CITY and hereby grants permission to the CITY to store Non-Native water in, and to recover that stored water from, the Basin, as described in and subject to the Terms and Conditions contained in this Agreement.

Terms and Conditions

NOW, THEREFORE, in consideration of the foregoing and the mutual promises contained herein, the parties hereto agree to the following terms and conditions:

1. Definitions. Unless otherwise specifically defined herein, the defined terms shall be given the same definition and meaning set forth in the Decision, as listed in Attachment A.

2. Storage Quantity. The CITY is authorized to store up to 2,361acre-feet per year of the water in the Basin. In the event the WATERMASTER revises the Total Usable Storage Space of the Basin in accordance with Section III.H.4 of the Decision, or if one or more Alternative Producers converts entirely or in part from an Alternative Production Allocation to a Standard Production Allocation in accordance with Section III.B.3.e of the Decision, the CITY's Storage Allocation may change, and this may affect the storage quantity authorized by this Agreement; however, any reduction in storage quantity will not result in a corresponding reduction in the amount of water actually stored at the time of the change. In such instance this Agreement will be modified to reflect these changes. Further, the parties may agree by written amendment to this Agreement to revise the storage quantities authorized herein.

3. Storage Location. The CITY's storage of water in the Basin will result from substituting recycled water obtained from the Pure Water Monterey project ("Recycled Water") for irrigation of the City's Bayonet and Blackhorse Golf Courses in lieu of the current use of approximately 450 acre-feet per year of groundwater from the Seaside Basin. The result of the substitution of the Recycled Water for groundwater production to irrigate the golf courses will cause the replenishment and storage of water in the Basin. The location where the Recycled Water will be delivered to the golf courses is shown in Attachment B.

4. Recovery Location. The CITY will recover the stored water at CITY Well No. 4, located on Juarez Street in the CITY of Seaside, Assessor's Parcel Number 012-115-017-000, as shown in Attachment C or at any replacement well drilled for City Well No. 4 so long as the recovery of stored water from the replacement well does not cause any Material Injury to the Basin. CITY Well No. 4 withdraws water from the Santa Margarita aquifer and is perforated at 390 to 420 feet below ground surface (bgs), 430 to 470 feet bgs and at 490 to 550 feet bgs.

5. Recovery Quantity. The CITY is initially authorized to recover (Extract) the full amount of the water that is actually Stored in accordance with this Agreement. However, due to the hydrogeologic characteristics of the Seaside Basin, naturally occurring losses of Stored Water may result in the WATERMASTER reducing the percentage of Stored Water that may be Extracted. Should the WATERMASTER determine that this needs to be done, this Agreement will be modified to reflect the reduced quantity of water that the CITY may recover, and the technical basis for this determination will be provided to all PRODUCERs.

6. Water Quality. Because the storage pursuant to this Agreement would occur through in-lieu storage procedures rather than injection or spreading, water quality should not be of concern. However, the substitution water is Recycled Water from the Pure Water Monterey Project, which is the same water that MPWMD will inject into the Seaside Basin pursuant to the California-American Water Company storage program previously approved by Watermaster. The water quality constituents in the Recycled Water will not exceed the water quality limits contained in the Waste Discharge Requirements and Water Recycling Requirements issued for the Pure Water Monterey Project issued by the Central Coast RWQCB in Order No. R3-2017-0003.

7. Carryover and Stored Water Credits. In accordance with Section III.F of the Decision, if during a particular Water Year the CITY does not Extract from the Basin a total quantity equal to the CITY's Standard Production Allocation plus any stored water for the particular Water Year, the CITY may establish Carryover Credits, up to the total amount of the CITY's Storage Allocation.

However, in accordance with the Decision in no circumstance may the sum of the CITY's Stored Water Credits and Carryover Credits exceed the CITY's available Storage Allocation. Further, in accordance with Section III.H.5 of the Decision, unused (not Extracted) Stored Water Credits may be carried over from year to year, but due to the hydrogeologic characteristics of the Seaside Basin, naturally occurring losses of Stored Water may require Watermaster to discount the percentage of Stored Water for all SPA Producers that may be Extracted.

8. Measurement and Reporting of Extractions and Storage. In accordance with Section III.J of the Decision, the CITY shall ensure that adequate measuring devices are installed, maintained, and used on all facilities that deliver Recycled Water to the CITY's golf courses, and the CITY shall ensure that adequate measuring devices are installed, maintained, and used on all of the CITY's Extraction facilities, as required by the WATERMASTER's Rules and Regulations and this Agreement.

Beginning on the initial delivery of Recycled Water to the CITY in accordance with this Agreement, the CITY shall provide to the WATERMASTER a monthly Recycled Water report which contains the following information:

- The quantity of Recycled Water that was delivered to and used by the CITY to irrigate the CITY's golf courses. This quantity will represent the amount of water Stored by the CITY for subsequent extraction under this Agreement.
- The quantity of Stored Water that was recovered (Extracted)
- The location(s) where the Stored Water was recovered (Extracted)

9. Indemnification. The CITY shall assume the defense of, indemnify and hold harmless, the WATERMASTER, its officers, agents and employees from all claims, liability, loss, damage or injury of any kind, nature or description arising directly or indirectly from actions or omissions by the CITY or any of its officers, agents, employees, or independent contractors relating to this Agreement, excepting claims, liability, loss, damage or injury which arise from the willful or negligent acts, omissions, or activities of an officer, agent or employee of the WATERMASTER.

10. Successors and Assigns. This Agreement, and all the terms and conditions hereof, shall apply to and bind the successors and assigns of the respective parties hereto; provided that the CITY shall not assign this Agreement without prior written consent of the WATERMASTER.

11. Further Cooperation. Each of the parties agree to reasonably cooperate with each other, and to execute and deliver to the other all such documents and instruments, and to take such further actions, as may reasonably be required to give effect to the terms and conditions of this Agreement.

12. Interpretation. It is agreed and understood by the parties hereto that this Agreement has been arrived at through negotiation and that no party is to be deemed the party which prepared this Agreement within the meaning of Civil Code §1654. The provisions of this Agreement shall be interpreted in a reasonable manner to effect the purpose of the parties and this Agreement.

13. Disputes. If any dispute under this Agreement arises the parties shall first meet and confer in a good faith attempt to resolve the matter between themselves. Each party shall make all reasonable efforts to provide to the other parties all the information that the party has in its possession that is relevant to the dispute, so that all parties will have ample information with which to reach a decision. If the dispute is not resolved by meeting and conferring, the matter shall be submitted to the Court for resolution pursuant to the Court's reserved jurisdiction as set forth in the Decision.

14. Modification. This Agreement may be amended, altered or modified only by a writing, specifying such amendment, alteration or modification, executed by authorized representatives of each of the parties hereto.

15. Attorney's Fees and Costs. In the event it should become necessary for any party to enforce any of the terms and conditions of this Agreement by means of court action or administrative enforcement, the prevailing party/parties, in addition to any other remedy at law or in equity available to such party, shall be awarded from the non-prevailing party/parties all reasonable costs and reasonable attorney's fees in connection therewith, including the fees and costs of experts reasonably consulted by the attorneys for the prevailing party/parties.

16. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall be deemed to constitute one and the same instrument.

17. Written Notice. Written notice shall be deemed to have been duly served if delivered in person or by mail to the individuals and at the addresses listed below:

WATERMASTER	CITY
Administrative Officer Seaside Basin Watermaster P.O. Box 51502 Pacific Grove, CA 93950	Craig Malin City Manager City of Seaside 440 Harcourt Avenue Seaside, CA 93955 w/E-mail Copy to: Cityattorney@ci.seaside.ca.us

18. Conflicts with the Decision. The Parties believe this Agreement to be consistent with the terms of the Decision and agree that the CITY'S rights under this Agreement are subject to the Decision and in the event of any conflict between the provisions of this Agreement and the Decision, the Decision shall control.

19. Entire Agreement. This Agreement constitutes the entire and complete agreement between the parties regarding the subject matter hereof, and supersedes all prior or contemporaneous negotiations, understandings or agreements of the parties, whether written or oral, with respect to such subject matter.

20. Term. This Agreement shall be effective on the date it has been executed by all Parties and continue in perpetuity unless and until ordered terminated by the Court maintaining continuing jurisdiction over the Decision.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement consisting of five (5) pages and three (3) attachments in triplicate on the date hereinabove written.

WATERMASTER

By: _____
Paul Bruno
Chairperson

CITY

By: _____
Craig Malin
City Manager

Approved as to Form

_____
City Attorney

ATTACHMENT A

DEFINITIONS
(Excerpted from the Decision)

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

"Carryover" means that portion of a Party's Production Allocation that is not Extracted from the Basin during a particular Water Year. Each acre-foot of Carryover establishes an acre-foot of Carryover Credit.

"Carryover Credit(s)" means the quantity of Water established through Carryover, that a Party is entitled to Produce from the Basin pursuant to Section III.F.

"Extraction," "Extractions," "Extracting," "Extracted," and other variations of the same noun or verb, mean pumping, taking, diverting or withdrawing Groundwater by any manner or means whatsoever from the Seaside Basin.

"Groundwater" means all Water beneath the ground surface in the Seaside Basin, including Water from Natural Replenishment, Artificial Replenishment, Carryover, and Stored Water.

"Material Injury" means a substantial adverse physical impact to the Seaside Basin or any particular Producer(s) including but not limited to: seawater intrusion, land subsidence, excessive pump lifts and water quality degradation.

"Natural Replenishment" means all processes by which Water may become a part of the Groundwater supply of the Seaside Basin without the benefit of the Physical Solution and the coordinated management it provides. Groundwater that occurs in the Seaside Basin as a result of the Physical Solution, which is not Natural Replenishment, includes, but is not limited to Storage, Carryover, and Artificial Replenishment.

"Non-Native Water" means all Water that would not otherwise add to the Groundwater supply through natural means or from return flows from surface applications other than intentional Spreading.

"Physical Solution" means the efficient and equitable management of Groundwater resources within the Seaside Basin, as prescribed by this Decision, to maximize the reasonable and beneficial use of Water resources in a manner that is consistent with Article X, Section 2 of the California Constitution, the public interest, and the basin rights of the Parties, while working to bring the Production of Native Water to Natural Safe Yield.

"Producer" means a Party possessing a Base Water Right.

"Standard Production Allocation" is the amount of Groundwater that a Producer participating in this allocation method may Produce from a Subarea of the Seaside Basin as provided in Section

III.B.2, which is determined by multiplying the Base Water Right by the Operating Yield. "Storage" means the existence of Stored Water in the Seaside Basin.

"Storage Allocation" means that quantity of Stored Water in acre feet that a Party is allowed to Store in the Coastal Subarea or the Laguna Seca Subarea at any particular time.

"Storage Allocation Percentage" means the percentage of Total Usable Storage Space allocated to each Producer proceeding under the Standard Production Allocation. Producers proceeding under the Alternative Production Allocation are not allocated Storage rights and, consequently, their share of the Total Usable Storage Space is apportioned to the Producers proceeding under the Standard Production Allocation. Pursuant to the terms of Section III.B.3, Parties proceeding under the Alternative Production Allocation enjoy a one-time right to change to the Standard Production Allocation. Due to the recalculation of the Storage Allocation Percentage necessitated when a Party changes to the Standard Production Allocation, the WATERMASTER will maintain the up-to-date Seaside Basin Storage Allocation Percentages.

"Storage and Recovery Agreement" means an agreement between WATERMASTER and a Party for Storage pursuant to Section III.L.3.j.xx.

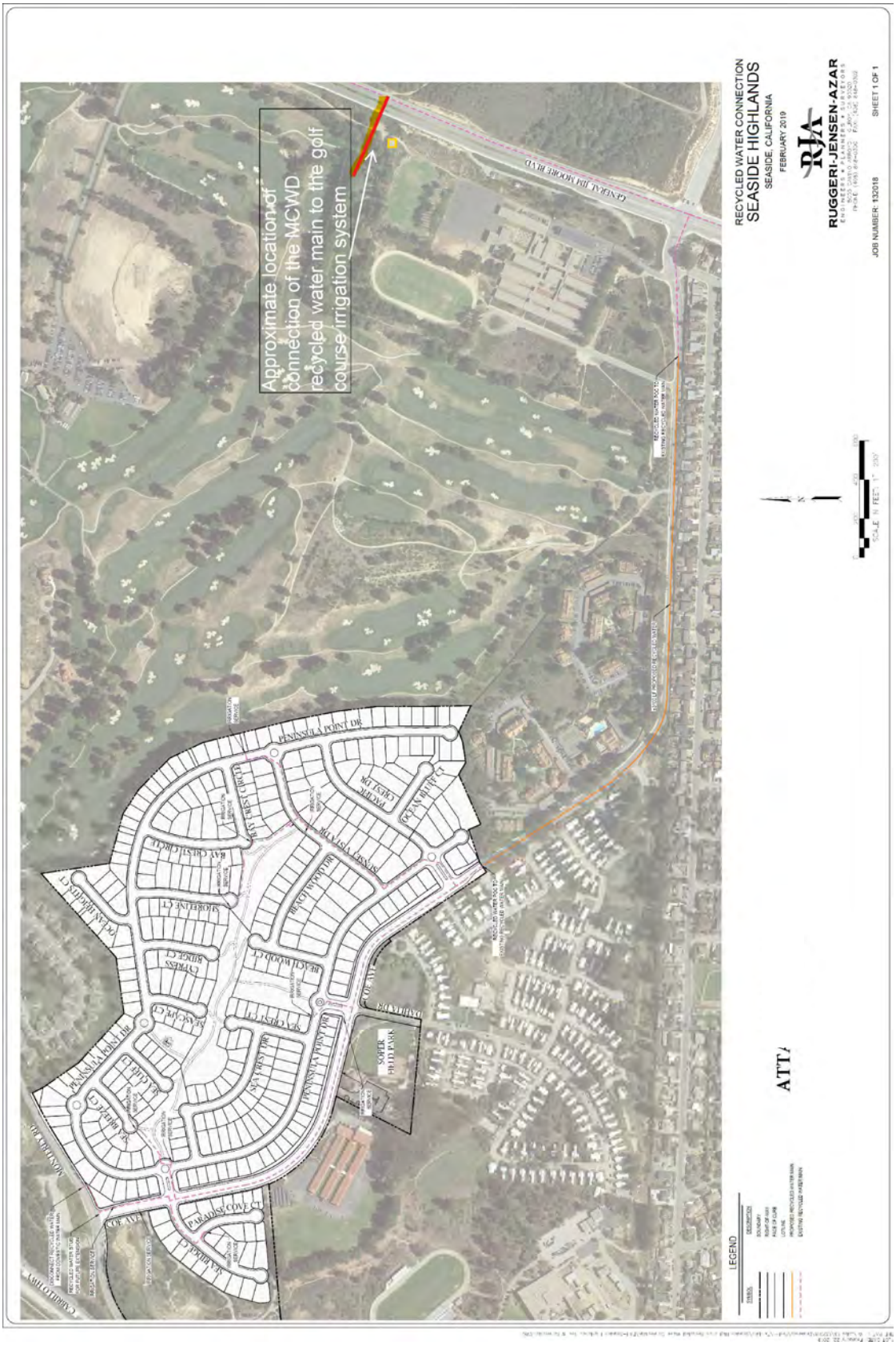
"Store" and other variations of the same verb refer to the activities establishing Stored Water in the Seaside Basin.

"Stored Water" means (1) Non-Native Water introduced into the Seaside Basin by a Party or any predecessors-in-interest by Spreading or Directly Injecting that Water into the Seaside Basin for Storage and subsequent Extraction by and for the benefit of that Party or their successors-in- interest; (2) Groundwater within the Seaside Basin that is accounted for as a Producer's Carryover; or (3) Non-Native water introduced into the Basin through purchases by the WATERMASTER, and used to reduce and ultimately reverse Over-Production.

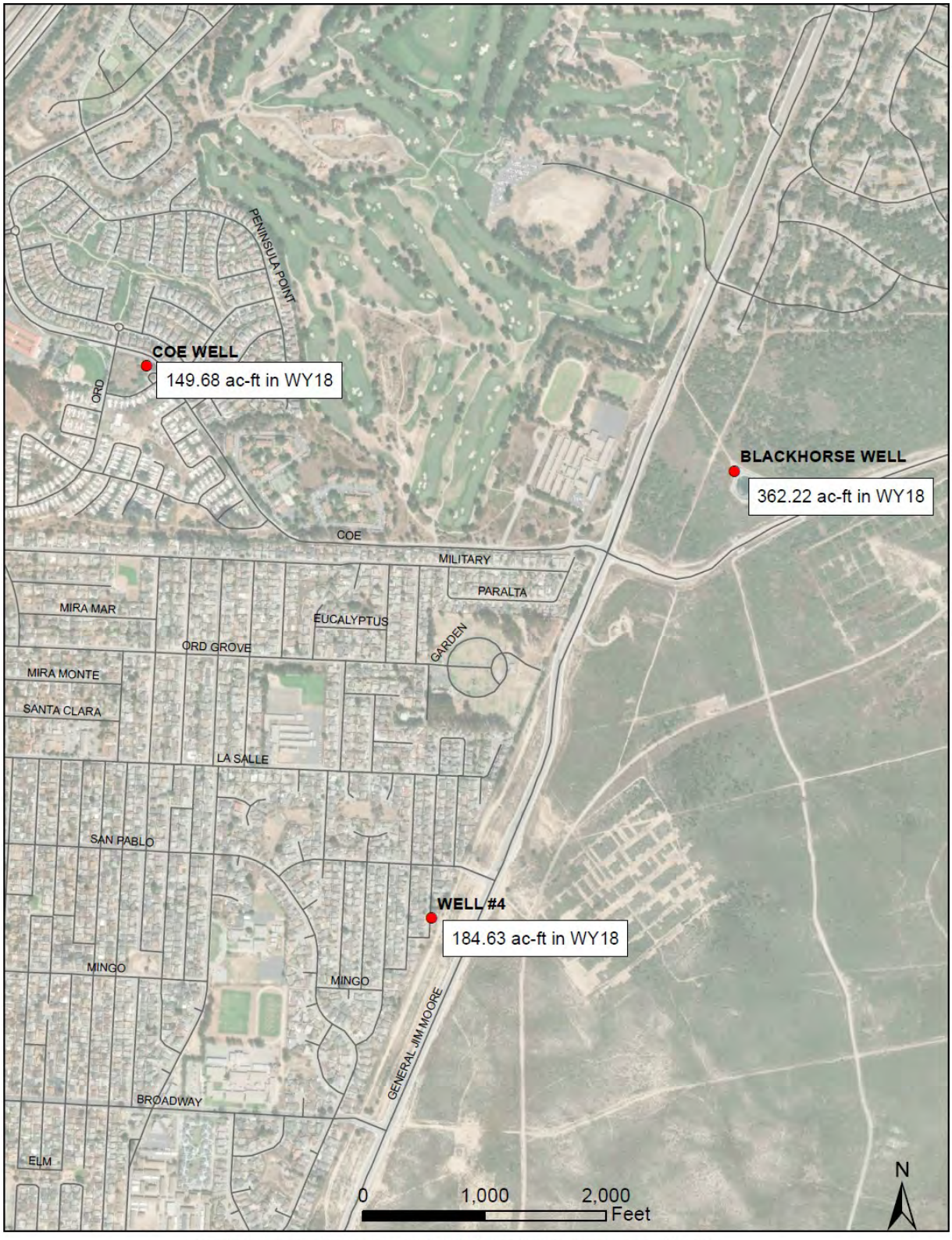
"Stored Water Credit" means the quantity of Stored Water augmenting the Basin's Retrievable Groundwater Supply, which is attributable to a Party's Storage and further governed by this Decision and a Storage and Recovery Agreement.

"Total Useable Storage Space" means the maximum amount of space available in the Seaside Basin that can prudently be used for Storage as shall be determined and modified by WATERMASTER pursuant to Section III.L.3.j.xix, less Storage space which may be reserved by the WATERMASTER for its use in recharging the Basin.

Attachment B



Attachment C



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ATTACHMENT 8

EXECUTIVE SUMMARY
FROM THE
WY 2020 SEAWATER INTRUSION ANALYSIS REPORT

MONTGOMERY
& ASSOCIATES
Water Resource Consultants

November 19, 2020

Seaside Groundwater Basin
2020 Seawater Intrusion Analysis Report

Prepared for:

Seaside Groundwater Basin Watermaster

Monterey County, California

Prepared by:

Montgomery & Associates

1970 Broadway, Suite 225

Oakland, CA 94602

MONTGOMERY & ASSOCIATES
Water Resource Consultants

EXECUTIVE SUMMARY

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

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

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

Based on an evaluation of geochemical indicators in prior years, seawater intrusion has not historically been observed in existing monitoring and production wells in the Seaside Basin. In Water Year 2020 for the first time, what may be a precursor to seawater intrusion was detected in two monitoring wells experiencing increasing chloride concentrations. One of these is north of and outside of the Seaside Basin (monitoring well FO-10 Shallow), and the other is just inside the northern boundary of the Seaside Basin in the Northern Coastal Subarea (monitoring well FO-9 Shallow). However, none of the Watermaster's Sentinel Wells, located closer to the coastline than monitoring wells FO-9 and FO-10, detected seawater intrusion in the shallow aquifer in their induction logs. The sampling frequency for monitoring wells FO-9 Shallow and FO-10 Shallow should be increased to quarterly to establish if their chloride concentrations are true trends, or anomalous. Since the Sentinel Wells have not detected an increase in salinity, if seawater is starting to impact the FO-9 Shallow and FO10-Shallow monitoring wells, it may be coming from the north out of the Monterey Subbasin where there is already seawater intrusion, rather than directly inland from the coastline of the Seaside Basin. Although seawater intrusion is not occurring in any other location in the Seaside Basin being monitored, there are ongoing

detrimental groundwater conditions that pose a potential threat of seawater intrusion as described below.

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

- Deep groundwater in the Northern Coastal subarea remains below sea level. The Water Year 2020 2nd quarter (winter/spring) deep aquifer coastal groundwater levels are more than 20 feet below sea level and the 4th quarter (summer/fall) levels are more than 30 feet below sea level. The pumping depression in the Northern Coastal subarea shrunk slightly because CAWC pumped almost 800 acre-feet less than last year in the subarea.
- Groundwater levels remain below protective elevations in all deep target monitoring wells (MSC Deep, PCA-W Deep, and sentinel well SBWM-3). Currently, MSC Shallow and PCA-W Shallow are two of three shallow wells with groundwater levels below their respective protective elevations.

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

- Most groundwater samples for Water Year 2020 from depth-discreet monitoring wells generally plot in a single cluster on Piper diagrams, with no water chemistry changes towards seawater. Increased chloride in recent samples at FO-9 Shallow and FO-10 Shallow has shifted how these wells plot on Piper diagrams towards a chlorinated water type, however they still generally plot between sodium-chloride and sodium-bicarbonate type waters.
- In some production wells, groundwater quality plots differently on Piper diagrams than the monitoring wells. This may be a result of mixed water quality from both shallow and deep zones in which these wells are perforated. None of the production wells' groundwater qualities are indicative of seawater intrusion.
- None of the Stiff diagrams for monitoring and production wells show the characteristic chloride spike that typically indicates seawater intrusion in Stiff diagrams. The Stiff

diagrams for monitoring wells FO-9 Shallow and FO-10 Shallow show a slightly different shape than other shallow wells because of their increased chloride.

- Chloride concentration trends were stable for most monitoring wells, except FO-9 Shallow and FO-10 Shallow. Monitoring well FO-09 Shallow has experienced increased chloride concentrations in all three samples taken during Water Year 2020, in addition to increases observed in the three samples taken last water year. The increase in concentrations between Water Years 2019 and 2020 is around 13 mg/L, which is greater than fluctuations observed historically over its period of record. Monitoring well FO-10 Shallow experienced a 48 mg/L increase in chloride concentrations in the sample taken this year, The elevated concentrations in themselves do not indicate seawater intrusion, however, these wells should both be monitored quarterly over the next year to determine if the increasing chloride concentrations are temporary or not.
- Sodium/chloride molar ratios in most monitoring wells remained constant or increased over the past year. Monitoring well FO-09 Shallow experienced an increase in chloride as mentioned above, and its sodium/chloride ratio of 0.82 in Water Year 2020 is just above its historical minimum of 0.81. Monitoring well FO-10 Shallow also experienced an increase in chloride over the last year and currently has a sodium/chloride ratio of 0.79. Sodium/chloride ratios at both of these wells are below the 0.86 ratio that may identify seawater intrusion as the source of chloride as opposed to a domestic wastewater source
- Maps of chloride concentrations for the shallow aquifer do not show chlorides increasing towards the coast. However, northern monitoring wells FO-9 Shallow and FO-10 Shallow have recently increased chloride concentrations, but at concentrations still less than 100 mg/L The deep aquifer maps show that the highest chloride concentrations are limited to coastal monitoring wells PCA-West Deep and MSC Deep, but these are not indicative of seawater intrusion since their concentrations are less than 155 mg/L and they do not have increasing trends.
- Induction logging data at the coastal Sentinel Wells do not show historical or recent changes over time that are indicative of seawater intrusion.

Due to its distance from the coast, seawater intrusion is not an issue of concern in the Laguna Seca subarea. However, groundwater levels in the eastern Laguna Seca subarea have historically declined at rates of 0.6 feet per year in the shallow aquifers, and up to four feet per year in the deep aquifers. These declines have occurred since 2001, despite triennial reductions in allowable pumping. The cause of the declines is due in part to the Natural Safe Yield of the subarea being too high and in part due to the influence of wells to the east of the Seaside Basin. Although there was some stabilization in groundwater levels between Water Years 2014 and 2016, groundwater levels are continuing to decline. The rate of decline now, however, is less than 0.6 feet per year.

Native groundwater production in the Seaside Groundwater Basin for Water Year 2020 was 3,323.1 acre-feet, which is 52.9 acre-feet more than Water Year 2019. The amount of native groundwater pumped in Water Year 2020 is 36.9 acre-feet less than the Decision-ordered Operating Yield of 3,360 acre-feet per year that is required between October 1, 2017 and September 30, 2020. The Decision-ordered Operating Yield for Water Year 2021 will be 3,000 acre-feet.

Based on recent corresponding increases in chloride concentrations at monitoring wells FO-9 Shallow and FO-10 Shallow, both in relatively close proximity to known intrusion in the Salinas Valley, the following is recommended:

1. Monitoring well FO-10 Shallow be immediately resampled to confirm the 48 mg/L chloride increase. A sample was collected on November 10, 2020 and results are expected within a month.

2. Monitoring wells FO-9 Shallow and FO-10 Shallow's sampling frequency be increased to quarterly and that their groundwater quality results be reviewed after each sampling event to identify if the recent increases are part of natural fluctuations or an ongoing increasing trend. Monitoring well FO-9 Shallow is currently monitored on a semi-annual basis, increased from annual sampling, because an increasing chloride trend had previously been observed. Monitoring well FO-10 Shallow is currently monitored on an annual basis.

With the exception of monitoring wells FO-09 Shallow and FO-10 Shallow, data analyzed for this report did not deviate significantly from historical data. Therefore, besides increased sampling frequency recommended for FO-09 Shallow and FO-10 Shallow , there are no additional recommendations on sampling frequencies.

As projects that recharge and recover water in the Basin are implemented, groundwater levels and thus groundwater flow directions will change, and possibly groundwater quality too. It is therefore important that data from new monitoring wells are reported to the Watermaster and taken into consideration in future SIARs. Watermaster staff worked in 2020 to identify monitoring wells associated with Pure Water Monterey that would be beneficial to the SIAR. Data from these wells have not yet been incorporated into the SIAR. Data from these wells will start to be incorporated into the SIAR in Water Year 2021.

ATTACHMENT 9

SEASIDE GROUNDWATER BASIN
2021 MONITORING AND MANAGEMENT PROGRAM

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 Project Budget and Controls ($0)	Consultants will provide monthly or bimonthly invoices to the Watermaster for work performed under their contracts with the Watermaster. Consultants will perform maintenance of their internal budgets and schedules, and management of their subconsultants. The Watermaster will perform management of its Consultants.
M. 1. b Assist with Board and TAC Agendas ($0)	Watermaster staff will prepare Board and TAC meeting agenda materials. No assistance from Consultants is expected to be necessary to accomplish this Task.
M. 1. c., M. 1. d, & M.1.e Preparation for and Attendance at Meetings, and Peer Review of Documents and Reports ($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.

M. 1. f **QA/QC** **($0)**	A Consultant (MPWMD) will provide general QA/QC support over the Seaside Basin Monitoring and Management Program. These costs are included in the other tasks.
M.1.g **Prepare Documents for SGMA Reporting** **($2,320)**	Section 10720.8 of the Sustainable Groundwater Management Act (SGMA) requires adjudicated basins to submit annual reports. Most of the documentation that needs to be reported is already generated by the Watermaster in conjunction with preparing its own Annual Reports. However, some information such as changes in basin storage is not currently generated and will require consultant assistance to do so. This task will be used to obtain this consultant assistance, as needed.

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

I. 2. a. Database Management

I. 2. a. 1 **Conduct Ongoing Data Entry and Database Maintenance/ Enhancement** **($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 Program

I. 2. b. 1 **Site Representation and Selection** **($0)**	The monitoring well network review that was started in 2008 has been completed, and sites have been identified where future monitoring well(s) could be installed, if it is deemed necessary to do so in order to fill in data gaps. No further work of this type is anticipated in 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**	Water quality data will be collected quarterly from certain of the monitoring wells, but will no longer be collected from the four coastal

Samples. ($42,101)	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 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 ($5,960)	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 of this type is anticipated in 2021.
I. 3. a. 2 Develop Protective Water Levels ($0)	A series of cross-sectional models was created in 2009 in order to develop protective water levels for selected production wells, as well as for the Basin as a whole. This work is discussed in Hydrometrics' "Seaside Groundwater Basin Protective Water Elevations Technical Memorandum." In 2013 further work was started to refine these protective water levels, but it was found that the previously developed protective water levels were reasonable. Protective water levels will be updated, if appropriate, as part of the work of Task I.3.c.
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 provides a $20,000 allowance to perform modeling or other work to develop answers to basin management questions, if so directed by the Watermaster Board.

I. 3. b. **Complete Preparation of Basin Management Action Plan** **($0)**	The Watermaster's Consultant completed preparation of the Basin Management Action Plan (BMAP) in February 2009. The BMAP serves as the Watermaster's long-term seawater intrusion prevention plan. The Sections that are included in the BMAP are: Executive Summary Section 1 – Background and Purpose Section 2 – State of the Seaside Groundwater Basin Section 3 – Supplemental Water Supplies Section 4 –Groundwater Management Actions Section 5 – Recommended Management Strategies Section 6 – References
I. 3. c. **Refine and/or Update the Basin Management Action Plan** **($0)**	In 2019 the BMAP was updated based on new data and knowledge that has been gained since it was prepared in 2009. No further work of this type is anticipated in 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. No further work of this type is anticipated in 2021.
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.

ATTACHMENT 10

QUANTITIES OF WATER THAT WERE STORED AND RECOVERED UNDER THE PURE WATER MONTEREY PROJECT

Pure Water Monterey
Storage and Recovery
(AF)
Water Year 2020

	Delivery	Operating Reserve				Drought Reserve				Storage and Recovery	
Month	Injected	Beginning Balance	Injected	Withdrawn for Customer Service	Ending Balance	Beginning Balance	Injected	Withdrawn for Customer Service	Ending Balance	Total Into Storage	Total Recovery
October	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
November	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
December	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
January	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
February	59.4260	0.0000	59.4260	0.0000	59.4260	0.0000	0.0000	0.0000	0.0000	59.4260	0.0000
March	172.5080	59.4260	172.5080	0.0000	231.9340	0.0000	0.0000	0.0000	0.0000	172.5080	0.0000
April	179.1520	231.9340	179.1520	0.0000	411.0860	0.0000	0.0000	0.0000	0.0000	179.1520	0.0000
May	176.5850	411.0860	176.5850	0.0000	587.6710	0.0000	0.0000	0.0000	0.0000	176.5850	0.0000
June	150.9151	587.6710	150.9151	0.0000	738.5861	0.0000	0.0000	0.0000	0.0000	150.9151	0.0000
July	155.1227	738.5861	155.1227	0.0000	893.7088	0.0000	0.0000	0.0000	0.0000	155.1227	0.0000
August	159.5614	893.7088	159.5614	0.0000	1053.2702	0.0000	0.0000	0.0000	0.0000	159.5614	0.0000
September	88.4066	1053.2702	0.0000	0.0000	1053.2702	0.0000	0.0000	0.0000	0.0000	88.4066	88.4066
Total	1141.6768		1053.2702	0.0000			0.0000	0.0000		1141.6768	88.4066