

1 ELLISON, SCHNEIDER HARRIS & DONLAN LLP
2 Robert E. Donlan (SBN 186185)
3 2600 Capitol Avenue, Suite 400
4 Sacramento, California 95816
5 Telephone: (916) 447-2166
6 Email: red@eslawfirm.com

Attorneys for Plaintiff California-American Water Company

7 **SUPERIOR COURT OF CALIFORNIA**

8 **COUNTY OF MONTEREY**

9 CALIFORNIA AMERICAN WATER,

10 Plaintiff

11 vs.

12 CITY OF SEASIDE, et al.

13 Defendants.

14 MONTEREY PENINSULA WATER
15 MANAGEMENT DISTRICT,

16 Intervenor.

17 MONTEREY PENINSULA WATER
18 MANAGEMENT DISTRICT,

19 Intervenor.

20 AND RELATED CROSS ACTIONS.

Case No.: M66343

**CALIFORNIA-AMERICAN WATER'S
NOTICE OF FILING OF ANNUAL
REPORT**

Assigned for All Purposes to the Honorable
Robert O'Farrell
Action Filed: August 14, 2003

21 **TO ALL PARTIES AND TO THEIR RESPECTIVE COUNSEL OF RECORD:**

22 **PLEASE TAKE NOTICE** that California-American Water Company ("California American
23 Water"), at the request and on behalf of the Seaside Groundwater Basin Watermaster
24 ("Watermaster") Chief Executive Officer, hereby files the Seaside Basin Watermaster Annual
25 Report – 2019 ("Report"). The Report is required to be filed on or before January 15, 2020,
26 consistent with the provisions of the Decision in this action, as amended by the Order Amending
27 Judgment filed March 29, 2018.

28 A copy of the main body of the Report will be served on each of the Parties by California

1 American Water along with a copy of this Notice. Hard copies of the 15 attachments to the
2 Report, consisting of approximately 132 pages, are available upon request from the Watermaster
3 Chief Executive Officer.

4
5 Dated: January 13, 2020

ELLISON SCHNEIDER HARRIS & DONLAN LLP

6 By: 
7 _____
8 Robert E. Donlan

9 *Attorneys for Plaintiff California-American Water
10 Company*

**SEASIDE BASIN
WATERMASTER**

ANNUAL REPORT – 2019

December 5, 2019

Table of Contents

Seaside Basin Watermaster Annual Report - 2019	4
Groundwater Extractions	4
Groundwater Storage	4
Amount of Artificial Replenishment, If Any, Performed by Watermaster	5
Leases or Sales of Production Allocation and Administrative Actions	5
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	6
Violations of the Decision and Any Corrective Actions Taken	6
Watermaster Administrative Costs	7
Replenishment Assessments	7
All Components of the Watermaster Budget	8
Water Quality Monitoring and Basin Management	8
Water Quality Analytical Results	8
Monitoring and Management Program Work Plan for the Upcoming Year	8
Basin Management Database	9
Enhanced Monitoring Well Network.....	10
Basin Management Action Plan (BMAP).....	10
Seawater Intrusion Response Plan.....	12
Seawater Intrusion Analysis Report.....	12
Geochemical Impact Assessments	13
Sustainable Groundwater Management Act	13
Information that the Watermaster Would Otherwise Include within a Case Status	
Conference Statement	14
Summary of Basin Conditions and Important Developments Concerning the Management of the Basin.....	14
Planned Near and Long-term Actions of the Watermaster	15
Information Concerning the Status of Regional Water Supply Issues	15
Management Activities that May Bear on the Basin’s Wellbeing.....	16
Conclusions and Recommendations	17
Listing of Acronyms Used in this Annual Report	19
ATTACHMENT 1 - Groundwater Extractions	20
ATTACHMENT 2 - Watermaster Declaration of Non-Availability of Artificial Replenishment Water	22
ATTACHMENT 3 - Watermaster Administrative and Operations Costs	26
ATTACHMENT 4 - Replenishment Assessment Unit Cost Determination for Water Year 2020	29
ATTACHMENT 5 - Replenishment Assessment Calculations for WY 2019	33
ATTACHMENT 6 - Watermaster Budgets for 2020	36
ATTACHMENT 7 – Executive Summary from the Updated Basin Management Action Plan	43
ATTACHMENT 8 - Executive Summary from the WY 2019 Seawater Intrusion Analysis Report	52
ATTACHMENT 9 - Seaside Groundwater Basin 2020 Monitoring and Management Program	56
ATTACHMENT 10 – Seaside Groundwater Basin Natural Safe Yield Allocations to Producers	64

**ATTACHMENT 11 – Discussion of Using Sustainable Yield vs. Natural Safe Yield
for Basin Management..... 76**
ATTACHMENT 12 – Geochemical Impacts Assessment 81
ATTACHMENT 13 – Storage and Recovery Agreement 88
**ATTACHMENT 14 – Cypress Pacific Investors Front-Loading Delivery of Water
Agreement 114**
**ATTACHMENT 15 – Court Documents Pertaining to the City of Seaside’s In Lieu
Groundwater Storage Program 132**

SEASIDE BASIN WATERMASTER

ANNUAL REPORT – 2019

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 2019 Annual Report is being filed on or before January 15, 2020, 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 2019 (WY 2019) 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 2019.” Water Year 2019 is defined as beginning October 1, 2018 and ending on September 30, 2019.

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 2019, 1,335 AF was diverted and stored in the Seaside Basin under the ASR program. Rainfall in the area was about 145% of normal, and Carmel River flow was about 217% of normal.

Based upon production reported for WY 2019, the following Standard Producers are entitled to Free and Not-Free Carryover Credits to 2020 in accordance with the Decision, Section III. H. 5:

<u>Producer</u>	<u>Free Carryover Credit</u> (Acre-feet)	<u>Not-Free Carryover Credit</u> (Acre-feet)
Granite Rock	194.88	27.12

DBO Development	364.98	38.98
Calabrese (Cypress)	14.65	1.64
CAWC	00.00	130.75
City of Seaside Muni	00.00	00.00

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

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

During Water Year 2019 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 2019 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.

However, 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 are contained in Attachment 15. The Watermaster plans to prepare and consider approving such an agreement in early 2020.

D. Leases or Sales of Production Allocation and Administrative Actions

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. In Water Year 2019 CAWC began wheeling 3.17 AF to a certain CPI property.

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 2019 the Watermaster Board did not make any revisions to its *Rules and Regulations*.

During WY 2019 the Watermaster Board was comprised of the following Members and Alternates:

<u>MEMBER</u>	<u>ALTERNATE</u>	<u>REPRESENTING</u>
Director Paul Bruno	N/A	Coastal Subarea Landowner
Christopher Cook	Nina Miller/Tim O'Halloran	California American Water
Director Bob Costa/Troy Thompson	N/A	Laguna Seca Subarea Landowner
Director George Riley	Director Jeanne Byrne	MPWMD
Mayor Mary Ann Carbone		City of Sand City
Supervisor Mary Adams (MCWRA)	Supervisor Jane Parker	Monterey County
Councilmember John Gaglioti	Mayor Alison Kerr	City of Del Rey Oaks
Councilmember Dan Albert	Mayor Clyde Roberson	City of Monterey
Mayor Ian Oglesby		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 2019 and 1,335.07 acre-feet of water was injected into the Basin as Stored Water Credits and 744.36 acre-feet was extracted.

In accordance with Section III. L. 3. j. xx, CAWC and MPWMD applied to the Watermaster for Storage in the Seaside Basin of water from the Pure Water Monterey Project (PWM). The application was considered by the Watermaster at its publicly noticed October 3, 2018 meeting. No member of the public present at the meeting voiced concerns about approval of the application or PWM. After consideration and discussion, the Watermaster Board approved the application.

The Watermaster Board considered approval of a Storage and Recovery Agreement between the Watermaster, CAWC, and MPWMD governing the future injection and recovery of water from PWM at its publicly noticed January 2, 2019 meeting. No member of the public present at the meeting voiced concerns about approval of the agreement or PWM. After consideration and discussion, the Watermaster Board approved the agreement. A copy of the agreement is included in Attachment 13 of this Annual Report.

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.

Because the December 5, 2018 Board meeting was canceled, the Watermaster made its declaration regarding the availability of Artificial Replenishment for WY 2019 at its Board meeting of January 2, 2019. A copy of this declaration is contained in Attachment 2. In WY 2018 the Watermaster implemented another 10% water production reduction required under Section III.B.2 of the Decision. No additional water production reductions were implemented in WY 2019.

Total pumping for WY 2019 did not exceed the Operating Yield (OY) of the Basin, and exceeded the Natural Safe Yield (NSY) of the Basin by 269.24 acre-feet.

California American Water reported annual pumping quantities that exceeded its Standard Production NSY allocation by 284.85 acre-feet, and reported annual pumping quantities that did not exceed its Operating Yield allocation. 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 27.82 acre-feet, and reported annual pumping quantities that exceeded its Operating Yield allocation by 31.41 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 2019 amounted to \$80,000 including a \$25,000 dedicated reserve. Costs include the Administrative Officer salary and legal counsel fees. The “Fiscal Year 2019 Administrative Fund Report” and “Fiscal Year 2019 Operations Fund Report” are provided in Attachment 3.

H. Replenishment Assessments

At its meeting of October 2, 2019 the Watermaster Board determined that the Natural Safe Yield Replenishment Assessment unit cost of \$2,872 per acre-foot, and the Operating Yield Replenishment Assessment unit cost of \$718 per acre-foot, which are the unit costs that were used in WY 2019, should remain the same for WY 2020.

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 2019, CAWC’s Replenishment Assessment for Overproduction in excess of its share of the Natural Safe Yield is \$818,097.34. CAWC had no overproduction in excess of its share of the Operating Yield.

The City of Seaside’s Replenishment Assessment for its Municipal System for Overproduction in excess of its share of the Natural Safe Yield is \$79,892.62, and for overproduction in excess of its share of the Operating Yield is \$22,550.43. 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 2018 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 2019 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 2019 from the enhanced network of monitoring wells. The low-flow sampling method implemented in 2009 continued to be used in 2019 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 to once every 3 years.

No modifications to the quarterly data collection frequency from the enhanced network of monitoring wells were made during WY 2019.

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 used that data to prepare the water quality and water level report and included it as an attachment to the SIAR. The SIAR is further discussed below.

Monitoring and Management Program Work Plan for the Upcoming Year

The 2020 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 October 2, 2019 meeting.

Other than small changes due to changes in hourly rates for some of the consultants, the following are the principle differences between the 2019 M&MP and the 2020 M&MP, and their respective budgets:

Task I.2.b.3 (Collect Quarterly Water Quality Samples): In 2019 the total amount budgeted for this Task was \$42,083, comprised of \$24,542 for MPWMD and \$17,541 for Martin Feeney. The proposed scope of work for this task in 2020 is changed slightly from 2019 due to (1) the need to perform some maintenance work on the Sentinel Wells by Mr. Feeney, and (2) by a reduction in the amount of work required by MPWMD to compile data. The cost for the induction logging subcontractor to Mr. Feeney is unchanged from 2019, but the amount proposed for Mr. Feeney's portion of this work in 2020 is increased by \$1,710 to perform the maintenance work. MPWMD's costs for 2020

are reduced by \$992. Therefore, the amount proposed for 2020 is increased by \$718 to \$42,801.

Task I.2.b.6 (Prepare Data Appendix for SWI Report): MPWMD's scope of work for this Task in 2020 has been reduced by having them only compile the data in MS Access format and provide that to Montgomery & Associates, rather than preparing a water quality and water level report. Therefore, the amount proposed for 2020 is reduced by \$1,490 to \$2,086.

Task I.2.b.7 (CASGEM Data Submittal for Watermaster's Voluntary Wells): Because of the increased time MPWMD encountered in 2019 to format and submit this data to the Department of Water Resources (DWR) to comply with the Sustainable Groundwater Management Act (SGMA) requirements for adjudicated basins, the number of hours provided for this Task in 2020 has been significantly increased from 16 hours in 2019 to 60 hours in 2020. The hourly rate for this work is unchanged from 2019, but the additional hours resulted in an increase in cost. Therefore, the amount proposed for 2020 is increased by \$6,556 to \$8,940.

Task I.4.c (Annual Report- Seawater Intrusion Analysis): In 2019 the total amount budgeted for this Task was \$22,742, comprised of \$1,192 for MPWMD and \$21,550 for Montgomery & Associates. The proposed scope of work for this task is changed from 2019 by having Montgomery & Associates prepare the water quality and water level report that was formerly prepared by MPWMD under Task I.2.a.1. The hourly rate for the MPWMD staff involved in performing their portion of this task is unchanged, so the amount proposed for 2020 for their portion of this work is unchanged from the amount in 2019. The hourly rates for some of the personnel working on this at Montgomery and Associates have increased slightly, and additional hours have been added for Montgomery & Associates to take the raw data provided to them by MPWMD and use it to prepare the water level and water quality report, so it can be included in the SIAR. Therefore, the amount proposed for 2020 is increased by \$2,580 to \$25,322.

Task I.3.e (Seaside Basin Geochemical Model): The full cost of the geochemical modeling that was performed in 2019 is being borne by the three proponents of the projects that intend to inject new sources of water into the Basin. These are California American Water, MPWMD, and Monterey One Water (formerly MRWPCA). It is anticipated that, if Montgomery & Associates needs to perform work on this Task in 2020, these same parties will reimburse the Watermaster for all of the costs to perform this work. Therefore, there should be no net cost to the Watermaster for the work of this Task.

In summary, the 2020 M&MP Operations Budget, including the associated \$822 increase in the 10% Contingency line item, is \$9,046 higher (\$215,967-\$206,921) than the 2019 Budget.

Since no Capital Projects are anticipated in 2020, there is no change in the M&MP Capital Budget from 2019 to 2020, and that budget remains at zero dollars.

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 2020.

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 has 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 2019 Updated BMAP is quite lengthy, so only the Executive Summary from that document is contained in Attachment 7. However, a full copy of the 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.

Attachment 10 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. 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 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 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 Attachment 11 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.

Seawater Intrusion Response Plan

HydroMetrics LLC 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 2019.

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 2019 SIAR required by the M&MP. The WY 2019 SIAR provided an analysis of data collected during that Water Year.

The 2019 SIAR reported that the evaluation of the data from the sampling and monitoring program continued to indicate that seawater intrusion was not occurring.

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.

The Watermaster continues to analyze the data that is being gathered at the various monitoring sites in order to keep a close watch on the conditions within the Basin, as discussed under the "Enhanced Monitoring Well Network" heading above. Because none of the data indicates the presence of seawater intrusion, the Watermaster does not at this time plan to move forward with the Work Plan to investigate sources of fluctuating chlorides in the Sentinel Wells. That work was described in Attachment 12 of the 2017 Annual Report. However, should future data warrant it, the Watermaster may reconsider undertaking the initial phase of that Work Plan.

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. 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.

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 2019 DWR did not issue any new regulations, or revisions to prior regulations, that impacted the Seaside Groundwater Basin or the Watermaster. In March of 2019 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. However, those efforts were still in progress as of the date of preparation of this Annual Report, and certain issues remained unresolved. During 2019 the SVBGSA developed a draft Groundwater Sustainability Plan (GSP) for the 180/400 foot aquifer subbasin, and toward the end of 2019 was holding a series of public meetings to publicize the GSP and solicit public input. DWR previously determined that this subbasin is critically overdrafted. The SVBGSA intends to submit

its GSP for this subbasin to DWR in time to meet the January 2020 deadline for submittal of GSPs for critically overdrafted basins.

In 2019 the City of Marina developed its own GSP for approximately 400 acres that are to the north of the area that will be encompassed by MCWD's GSP, and which overlaps with a portion of the area covered by the SVBGSA's 180/400 foot aquifer subbasin GSP.

In 2020 MCWD expects to begin development of a GSP for a 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 has been informed by MCWD that once that entity begins development of its GSP, the Watermaster will be invited to participate in those activities.

The Watermaster is participating in the development of the SVBGSA's GSPs through its membership on the SVBGSA's Advisory Committee, and intends to participate in MCWD's development of its GSP. This will help to ensure that there is close coordination between the SVBGSA, MCWD, and the Watermaster on matters of mutual interest. Because the City of Marina's GSP only covers approximately 400 acres to the north of the area covered by MCWD's GSP and does not involve any aquifers which are directly connected with those in the Seaside Basin, the Watermaster did not participate in the development of the City's GSP.

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.

By email dated August 13, 2018, Judge Nichols, who replaced Judge Randall on this matter effective January 27, 2016, informed the Parties that he would soon be withdrawing as judge on the case as a result of changes to the Assigned Judges Program which caps the total number of days an assigned judge may serve. In 2019 the parties stipulated to the assignment of retired Monterey County Judge Robert O'Farrell, and Judge O'Farrell was subsequently assigned to Monterey County Superior Court Case No. M66343 - California American Water v. City of Seaside et al (the Adjudication Decision).

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 *Seawater Intrusion Analysis Report*, which analyzes the water quality data collected under the Watermaster's sampling program, found that no seawater intrusion is being detected within the Basin. The 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 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
- 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.

On September 13, 2018 the CPUC approved a modified MPWSP consisting principally of a reduced-size 6.4 mgd desalination plant (size originally proposed was 9.6 mgd with no reclaimed water), 3,500 AFY of PWM reclaimed water (previously and separately approved by the CPUC in 2017), and increased ASR water; adopting settlement agreements to resolve conflicts relating to the desalination project; issued a Certificate of Public Convenience and Necessity; and certified the combined EIR/EIS for that Project. California American Water is in the process of seeking necessary approvals from the California Coastal Commission and other permitting agencies.

In September 2019 construction began on the Transfer Pipeline, which will carry water from the future site of the desalination treatment plant to the edge of CAWC's service territory in Seaside. The work enables CAWC to meet the State Water Board's Cease and Desist Order milestone for 2019, which required project construction to begin. This first phase of pipeline work will total just over 4,000 feet. Completion is scheduled for mid-December. Once complete, the installation of over 50,000 feet of additional transmission pipeline will begin to the north.

In late 2019 the MPWSP received environmental summary clearance for \$285 million in State Revolving Fund low interest loans from the State Water Resources Control Board. The funding will significantly reduce the long term costs of the 6.4 mgd desalination

plant and decrease rate impacts to CAWC customers. While further paperwork and development of a final funding agreement with the SWRCB remains, the news from the state essentially formalizes zero percent financing for a majority of the project cost, lowering the cost per acre-foot by hundreds of dollars.

In an en banc decision the California Supreme Court denied the City of Marina and Marina Coast Water District's challenges to the California Public Utilities Commission's approval of the MPWSP, which was granted last year. The Supreme Court decision, issued in late August 2019, also denied challenges to the sufficiency of the Environmental Impact Report/ Environmental Impact Statement prepared for the long-awaited desalination plant. With the Supreme Court's decision now final, the Certificate of Public Necessity and Convenience issued by the CPUC is deemed by CAWC to be complete.

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. Approval by the Coastal Commission is the last major permit needed to allow construction of project to begin.

Assuming that permits are issued on the projected schedule, the desalination plant is projected to be put into service in mid-2021. Detailed quarterly update reports on the MPWSP are posted on the MPWSP website at <https://www.watersupplyproject.org>.

PWM

Construction work is well underway on Monterey One Water's (M1W) Pure Water Monterey (PWM) recycled water project in Marina. This project will produce approximately 3,500 AFY of advanced treated recycled water that will be delivered to the Seaside Basin for injection into the Basin and subsequent recovery and service to CAWC customers. M1W has also executed an agreement with Marina Coast Water District (MCWD) to use a MCWD pipeline that will convey the water from the PWM advanced water treatment plant to the Seaside Basin. The PWM component of the MPWSP is currently projected to become operational in early 2020.

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. That document was undergoing public review at the time this Annual Report was being prepared.

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 this 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 (IRWM) Planning 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.

L. Conclusions and Recommendations

The Seaside Basin Watermaster Board has worked diligently to meet all of the Court's established deadline dates. All of the Phase 1 Scope of Work activities, which are described in the "Implementation Plan for the Seaside Basin Monitoring and Management Program" dated March 7, 2007, have been completed. At the Watermaster Board meeting held on October 2, 2019 the Board adopted the FY 2020 budgets contained in [Attachment 6](#), which support carrying out all elements of the 2020 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 2020.

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 2019 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 2019
 (All Values in Acre-Feet [AF])

	Type	Oct	Nov	Dec	Oct-Dec 18	Jan	Feb	Mar	Jan-Mar 19	Apr	May	Jun	Apr-Jun 19	Jul	Aug	Sep	Jul-Sep 19	Reported Total	Yield Allocation	from WY 2018	for WY 2019
Coastal Subareas																					
CAW - Coastal Subareas	SPA	340.23	291.75	161.71	793.69	145.42	133.68	144.34	423.43	137.61	113.80	123.03	374.44	216.74	13.22	1.03	230.99	1,822.55	1,791.62	453.87	2,245.49
	Luzern	1.25	4.51	0.00	5.76	0.00	4.57	0.00	4.57	0.00	0.00	8.96	8.96	29.38	0.00	0.00	29.38	48.67			
	Ord Grove	123.91	118.28	118.81	361.00	116.84	103.82	113.35	334.01	105.62	105.95	98.48	310.05	98.87	94.41	89.26	282.54	1,287.60			
	Paralta	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	55.13	154.19	147.09	356.41	356.41			
	Playa	0.00	1.97	32.07	34.04	8.91	0.00	13.80	22.71	31.99	7.85	7.82	47.65	32.05	11.84	0.00	43.90	148.30			
	Phumas	0.05	0.00	0.00	0.05	19.67	25.28	17.19	62.14	0.00	0.00	7.77	7.77	1.31	0.00	0.02	1.33	71.29			
	Santa Margarita	215.02	166.99	10.83	392.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	117.26	144.55	261.81	654.65			
	ASR Recovery														-364.47	-379.89					
City of Seaside (Municipal)	SPA	15.74	14.59	11.76	42.09	6.74	17.24	14.15	38.13	13.97	15.68	15.59	45.24	17.28	18.20	17.46	52.94	178.40	146.99	0.00	146.99
Granite Rock Company	SPA	--	--	--	0.00	--	--	--	0.00	--	--	--	0.00	--	--	--	0.00	0.00	13.87	221.99	235.86
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	16.09	19.46
City of Seaside (Golf Courses)	APA	51.64	26.75	0.00	78.38	0.51	2.61	6.22	9.34	55.10	48.14	76.91	180.15	81.55	82.12	58.87	222.54	490.42	540.00		540.00
Sand City	APA	0.20	0.21	0.04	0.46	0.04	0.04	0.04	0.12	0.08	0.14	0.11	0.34	0.15	0.15	0.15	0.45	1.36	9.00		9.00
SNG (Security National Guaranty)	APA	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.16	1.86	1.47	3.50	3.51	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	0.01	0.01	0.02	6.00		6.00
Mission Memorial (Alderwoods)	APA	2.51	1.49	0.00	4.00	0.03	0.00	0.00	0.03	0.32	1.51	2.11	3.93	3.20	2.48	2.43	8.12	16.07	31.00		31.00
Coastal Subareas Totals					918.63				471.05				604.11				518.54	2,512.33	2,716.00	1,095.91	3,811.91
Laguna Seca Subarea																					
CAW - Laguna Seca Subarea	SPA	28.44	24.66	17.80	70.90	14.84	14.10	16.81	45.76	19.99	26.99	31.75	78.74	33.79	34.66	33.82	102.27	297.67	0.00		0.00
	Ryan Ranch Unit	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.01	3.01	5.71	5.70	5.93	17.34	20.35			
	Hidden Hills Unit	11.24	9.73	7.31	28.29	7.11	5.93	6.97	20.01	8.31	11.90	11.67	31.88	12.79	13.03	12.76	38.59	118.76			
	Bishop Unit 3	17.20	14.93	10.48	42.62	7.74	8.17	9.84	25.75	11.68	13.10	11.09	37.86	6.62	8.06	6.96	21.64	127.87			
	Bishop Unit 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.99	5.99	8.67	7.86	8.17	24.70	30.69			
The Club at Pastadera	APA	16.00	24.00	7.00	47.00	2.00	0.00	0.00	2.00	9.00	10.00	35.00	54.00	38.00	32.00	31.00	101.00	204.00	251.00		251.00
Laguna Seca Golf Resort (Bishop)	APA	16.55	12.42	0.22	29.19	0.00	0.30	0.00	0.31	16.68	16.71	34.50	67.88	37.78	39.98	31.07	108.83	206.21	320.00		320.00
York School	APA	1.33	0.49	0.00	1.81	0.03	0.00	0.00	0.03	1.69	1.47	1.78	4.94	3.25	2.66	1.51	7.43	14.20	32.00		32.00
Laguna Seca County Park	APA	3.01	1.47	0.76	5.23	1.70	0.41	1.16	3.28	1.84	2.55	2.62	7.00	8.37	4.78	6.17	19.31	34.83	41.00		41.00
Laguna Seca Subarea Totals					154.13				51.37				212.57				338.83	756.91	644.00	0.00	644.00
Total Production by WMI Producers					1,072.76				522.42				816.68				857.38	3,269.24	3,360.00	1,095.91	4,455.91
																		Annual Production from APA Producers		970.62	
																		Annual Production from SPA Producers		2,398.62	
City of Seaside Golf Courses In-Lieu (MCWD source water)																					
MCWD delivery		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	0.00		0.00
CAW/MPWMD ASR (Carmel River Basin source water)																					
Injection		0.00	0.00	0.00	0.00	269.63	306.73	372.93	949.29	282.60	103.18	0.00	385.78	0.00	0.00	0.00	0.00	1335.07			
(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	(364.47)	(379.89)	-744.36	-744.36			
Net ASR					0.00	269.63	306.73	372.93	949.29	282.60	103.18	0.00	385.78	0.00	-364.47	-379.89	-744.36	590.71			

Notes:

- The Water Year (WY) begins October 1 and ends September 30 of the following calendar year. For example, WY 2019 begins on October 1, 2018, and ends on September 30, 2019.
- "Type" refers to water right as described in Seaside Basin Adjudication decision as amended, signed February 9, 2007 (Monte rey County Superior Court Case No. M66343).
- Values shown in the table are based on reports to the Watermaster received by October 15, 2019.
- 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.
- "Base Operating Yield Allocation" values are based on Seaside Basin Adjudication decision. These values are consistent with the *Watermaster Producer Allocations Water Year 2012* (see Item IX A. in 1/2/2019 Board packet).
- Any minor discrepancies in totals are attributable to rounding.
- APA = Alternative Producer Allocation; SPA = Standard Producer Allocation; CAW = California American Water.
- 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:

Nicklaus Club Monterey	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
--------------------------------	---------------

-
- * 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:

Producer	Current Allocation (Using Table 1 of the Decision)		
	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, 2019)
 Balance through November 30, 2019

	<u>2019 Adopted Revised Budget</u>	<u>Contract Amount</u>	<u>Year to Date Revenue / Expenses</u>
Available Balances & Assessments			
Dedicated Reserve	-		-
FY (Rollover)	23,000.00		12,825.52
Admin Assessments	77,000.00		77,000.00
Available	<u>100,000.00</u>		<u>89,825.52</u>
Expenses			
Contract Staff	50,000.00	50,000.00	42,475.00
Legal Advisor	25,000.00		5,002.20
Filing fees and postage			-
Total Expenses	<u>75,000.00</u>	<u>50,000.00</u>	<u>47,477.20</u>
Total Available	25,000.00		
Dedicated Reserve	<u>25,000.00</u>		<u>25,000.00</u>
Net Available	<u><u>-</u></u>		<u><u>17,348.32</u></u>

Seaside Groundwater Basin Watermaster
Budget vs. Actual Monitoring & Management - Operations Fund
 Fiscal Year (January 1 - December 31, 2019)
 Balance through November 30, 2019

	2019 Adopted Budget	Contract Encumbrance	Year to Date Revenue/Expenses
Available Balances & Assessments			
Operations Fund Assessment	\$ 106,921.00	\$ -	\$ 106,921.00
Pass Through	-	3,915.00	2,049.00
Cost Share Reimbursement	-	-	-
FY 2018 Rollover	100,000.00	-	222,193.80
Total Available	\$ 206,921.00	\$ 3,915.00	\$ 331,163.80
Appropriations & Expenses			
GENERAL			
Technical Project Manager	\$ 50,000.00	\$ 50,000.00	\$ 55,312.50
Contingency @ 10% (not including TPM)	14,266.00	-	-
Total General	\$ 64,266.00	\$ 50,000.00	\$ 55,312.50
CONSULTANTS (Montgomery; Todd Groundwater; Web Site Database)			
Program Administration	\$ 21,140.00	\$ 19,400.00	\$ 11,391.61
Production/Lvl/Qlty Monitoring	2,400.00	-	-
Basin Management	30,000.00	-	-
Seawater Intrusion Analysis Report	21,550.00	21,100.00	-
Total Consultants	\$ 75,090.00	\$ 40,500.00	\$ 11,391.61
MPWMD			
Production/Lvl/Qlty Monitoring	\$ 48,832.00	48,832.00	20,950.00
Pass Through 2018	-	3,915.00	1,116.00
Basin Management	-	-	-
Seawater Intrusion	1,192.00	1,192.00	-
Direct Costs	-	-	2,820.00
Total MPWMD	\$ 50,024.00	\$ 53,939.00	\$ 24,886.00
CONTRACTOR (Martin Feeney)			
Production/Lvl/Qlty Monitoring	\$ 17,541.00	\$ 17,540.56	\$ 15,513.45
Total Appropriations & Expenses	\$ 206,921.00	\$ 161,979.56	\$ 107,103.56
Total Available	-	-	224,060.24

ATTACHMENT 4

**REPLENISHMENT ASSESSMENT UNIT COST
DETERMINATION FOR WATER YEAR 2020**

SEASIDE GROUNDWATER BASIN WATERMASTER

TO: Budget/Finance Committee
FROM: Laura Paxton, Administrative Officer
DATE: October 2, 2019
SUBJECT: Unit Cost for Water Year 2019/20 Over Production Replenishment Assessment Amounts

RECOMMENDATION:

The Budget and Finance Committee recommended at its September 18 meeting that the Board approve a Proposed Replenishment Assessment Unit Cost of \$2,872 for Natural Safe Yield Overproduction and \$718 (25% of \$2,872) for Operating Yield Over Production for Water Year 2019 (October 1, 2019 - September 30, 2020).

SUMMARY:

The Replenishment Assessment Unit Cost is used to calculate the Replenishment Assessments that are charged to any Standard Producer that exceeds its allocations (both Natural Safe Yield and Operating Yield allocations) during the Water Year.

Per page 33 of the Decision, *“The per acre-foot 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 2019 will be used to calculate Replenishment Assessments for pumping that occurs during the Water Year beginning October 1, 2019 and ending September 30, 2020.

BACKGROUND:

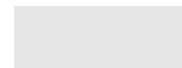
For each of the three Water Years 2014, 2015, and 2016, the Board adopted a unit cost of \$2,702/AF. This unit cost was developed starting with Water Year 2014 by taking the average of the Base Unit Cost (\$/AF) listed in Table 1 for each project $[\$3,507+\$1,800+\$2,000+\$3,500]/4$, as the Replenishment Assessment Unit Cost. The Water Year 2014 unit cost was carried over to the two subsequent Water Years because no updated cost data was available for the projects listed in Table 1, and no other viable projects could be identified. For Water Year 2016/17 the Budget and Finance Committee updated the basis from which the annual calculation of the Unit Cost of replenishment water is established, a blended cost of a reduced size desalination plant for the Monterey Peninsula Water Supply Project and groundwater replenishment provided by the Pure Water Monterey Project $[(\$4,591+\$2,025+\$2,000)/3] = \$2,872$ (see Table 2).

DISCUSSION:

Due to the lack of more supportable data the recommendation is to continue using \$2,872, the average of the Base Unit Cost (\$/AF) listed in Table 2 for each project $[(\$4,591+\$2,025+\$2,000)/3]$ as the Natural Safe Yield Over Production Replenishment Assessment Unit Cost for the Water Year 2019/2020. The Operating Yield Over Production Replenishment Assessment Unit Cost is 25% of that amount, or \$718.

ATTACHMENTS:

Table 1: Water Year 2014 Unit Cost Calculation Data
Table 2: Current Unit Cost Data



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

Total Quantity of 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 2019**

**WATERMASTER PRODUCER ALLOCATIONS WATER YEAR 2019 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 ⁽²⁾	2716.00
Natural Safe Yield (NSY) ⁽³⁾	3000.00	Laguna Seca Operating Yield ⁽⁴⁾	644.00

ALTERNATIVE PRODUCER ALLOCATIONS				ALTERNATIVE PRODUCER AMOUNT PUMPED WY 2019				Total Alternative Producer WY 2019 Production
Coastal Subarea ⁽⁵⁾	AF	Laguna Seca Subarea ⁽⁶⁾	AF	Coastal Subarea ⁽⁵⁾	AF	Laguna Seca Subarea ⁽⁶⁾	AF	
Seaside (Golf)	540.00	Nicklaus Club Monterey	251.00	Seaside (Golf)	490.42	Nicklaus Club Monterey	204.00	Total Alternative Producer WY 2019 Production
SNG	149.00	Bishop	320.00	SNG	3.51	Bishop	206.21	
Calabrese	6.00	York School	32.00	Calabrese	0.02	York School	14.20	
Mission Memorial (Alderwood)	31.00	Laguna Seca County Park	41.00	Mission Memorial (Alderwood)	16.07	Laguna Seca County Park	34.83	
Sand City	0.00			Sand City	1.36			
Total⁽⁵⁾	735.00	Total⁽⁶⁾	644.00	Total⁽⁵⁾	511.38	Total⁽⁶⁾	459.24	

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)	6.30%	7.42%	146.99				
Granite Rock	0.60%	0.70%	13.87				
D.B.O. Development No. 30 ⁽³⁾	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 ± Upper Ragsdale (2.15)	Water Rights Transferred / Sold Calabrese to CAW Ryan Ranch GHOMP	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 2019	Free Carry over Credits to WY 2019	Not-Free Carry over Credits to WY 2019	Stored Water Credits to WY 2020
			WY 2019 APA Pumped 970.62 AF										
California American Water	1791.62	90.44%	1835.37	182.91	270.96	2.31	3.17	2021.76	2250.97	2130.22	0.00	130.75	735.49
Seaside (Municipal)	146.99	7.42%	150.58	0.00	0.00	0.00	0.00	150.58	146.99	178.40	0.00	0.00	0.00
Granite Rock	13.87	0.70%	14.21	180.68	41.32	0.00	0.00	194.88	233.86	0.00	104.88	27.12	0.00
D.B.O. Development No. 30	25.16	1.27%	34.51	341.51	62.45	(2.31)	0.00	364.98	426.81	0.00	364.98	38.98	0.00
Calabrese (Cypress Pacific Investors LLC)	3.37	0.17%	3.45	14.36	1.73	0.00	(3.17)	14.65	16.29	0.00	14.65	1.64	0.00
Total	1981.00	100.00%	2029.38	719.46	376.46	0.00	0.00	2748.84	3076.92	2298.62	574.50	198.40	735.49

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.
 (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.

ATTACHMENT 6

WATERMASTER BUDGETS FOR 2020

**Seaside Groundwater Basin Watermaster
Administrative Fund
Adopted Budget October 2, 2019
Administrative Year 2020**

	<u>2019 Adopted Budget</u>	<u>2019 Estimated Total</u>	<u>2020 Adopted Budget</u>
Assessment Income			
Reserve/Rollover*	\$ 23,000	\$ 13,000	\$ 37,000
Administrative Assessment	<u>77,000</u>	<u>77,000</u>	<u>63,000</u>
Totals	<u>100,000</u>	<u>90,000</u>	<u>100,000</u>
Expenditures			
Contractual Services - Administrative	50,000	48,000	50,000
Legal Services	<u>25,000</u>	<u>5,000</u>	<u>25,000</u>
Total Expenses	<u>75,000</u>	<u>53,000</u>	<u>75,000</u>
Total Available	<u>25,000</u>	<u>37,000</u>	<u>25,000</u>
Less Reserve	<u>25,000</u>	<u>25,000</u>	<u>25,000</u>
Net Available	<u>\$ -</u>	<u>\$ 12,000</u>	<u>\$ -</u>

Monitoring and Management Program Operations Budget For Tasks to be Undertaken in 2020							Comparative Costs from 2019 Budget	
Task	Subtask	Sub-Subtask	Cost Description	CONSULTANTS & CONTRACTORS ⁽³⁾				Total
				MPWMD	Private Consultants	Contractors		
Labor								
			Technical Project Manager	\$0	\$50,000	\$0	\$50,000	\$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	\$19,000	\$0	\$19,000	\$19,000
	M.1.f		QA/QC	\$0	\$0	\$0	\$0	\$0
	M.1.g		SGMA Documentation Preparation	\$0	\$2,000	\$0	\$2,000	\$2,140
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	\$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 ⁽⁹⁾⁽⁵⁾⁽⁶⁾	\$23,550	\$0	\$19,251	\$42,801	\$42,083
		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	\$3,576
		I.2.b.7.	CASGEM Data Submittal for Watermaster's Voluntary Wells	\$8,940	\$0	\$0	\$8,940	\$2,384
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	\$20,000	\$0	\$20,000	\$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	\$0	\$0	\$0	\$0	\$0
	I.4.c.		Annual Report- Seawater Intrusion Analysis	\$1,192	\$24,130	\$0	\$25,322	\$22,742
	I.4.d.		Complete Preparation of Seawater Intrusion Response Plan ⁽²⁾	\$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 2020. If it Does Become Necessary, Use of Contingency Funds or a Budget Modification Will Likely be Necessary)				
TOTALS CONSULTANTS & CONTRACTORS				\$54,098	\$127,530	\$19,251		
SUBTOTAL not including Technical Program Manager =							\$150,879	\$142,655
Contingency (not including Technical Program Manager) @ 10% ⁽⁴⁾ =							\$15,088	\$14,266
Technical Program Manager =							\$50,000	\$50,000
TOTAL=							\$215,967	\$206,921

Footnotes:

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

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

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

(4) Due to the uncertainties of the exact scopes of some of the 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) Includes \$1,000 to maintain equipment previously installed for this purpose, and \$2,000 to purchase a new sampling pump if an existing one needs to be replaced. Also includes lab costs to analyze for barium and iodide ions in certain of these wells as was done in preceding years beginning in 2012.

(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 2020.

(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 Model and BMAP were updated in 2018 and 2019 respectively, 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 2020.

(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 2020.

(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 2020 would only be used if the geochemical modeling that is expected to be performed in 2020 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 mitigation measures for any adverse water quality impacts the geochemical model predicts could occur from introducing desalinated water into the Basin.

**Seaside Groundwater Basin Watermaster
Fiscal Year 2020 Monitoring & Management Plan
Capital Fund Budget**

No Capital projects are anticipated to be undertaken in 2020, so this budget is \$0.

Seaside Groundwater Basin Watermaster								ITEM VI.B.	
Replenishment Fund								12/4/19	
Water Year 2019 (October 1 - September 30) / Fiscal Year (January 1 - December 31, 2019)								Page 1	
Balance through October 31, 2019									
Replenishment Fund	2006	2007	2008	2009	2010	2011	2012	2013	2014
Assessments:	WY 05/06	WY 06/07	WY 07/08	WY 08/09	WY 09/10	WY 10/11	WY 11/12	WY 12/13	WY 13/14
Unit Cost:	\$1,132 / \$283	\$1,132 / \$283	\$2,485 / 621.25	\$3,040 / \$760	\$2,780 / \$695	\$2,780 / \$695	\$2,780 / \$695	\$2,780 / \$695	\$675.50
Cal-Am Water Balance Forward	\$ -	\$ 1,641,004	\$ 4,226,710	\$ (2,871,690)	\$ (2,839,939)	\$ (3,822,219)	\$ (6,060,164)	\$ (8,735,671)	\$ (6,173,771)
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 VI.B.	
Replenishment Fund							12/4/19	
Water Year 2019 (October 1 - September 30) / Fiscal Year (January 1 - December 31, 2019)							Page 2	
Balance through October 31, 2019								
2015	2016	2017	2018	2019	Totals WY 2006 Through 2019	Budget WY 2020	Projected Totals Through WY 2020	
WY 14/15	WY 15/16	WY 16/17	WY 17/18	WY 18/19		WY 19/20		
\$675.50	\$675.50	\$2,872 / \$718	\$2,872 / \$718	\$2,872 / \$718		\$2,872 / \$718		
\$ (3,102,221)	\$ (676,704)	\$ (676,704)	\$ (491,747)	\$(48,797,949)		\$(47,979,851)		
2,113,414	-	184,957	1,075,995	818,097	\$ 32,590,175	100,000	\$ 32,690,175	
312,103	-	-	-	-	957,881	20,000	977,881	
\$ 2,425,516		\$ 184,957	\$ 1,075,995	\$ 818,097	\$ 33,548,056	\$ 120,000	\$ 33,668,056	
-	-		(49,382,196)	-	(81,527,907)	-	(81,527,907)	
\$ (676,704)	\$ (676,704)	\$ (491,747)	\$(48,797,949)	\$(47,979,851)	\$(47,979,851)	\$(47,859,851)	\$ (47,859,851)	
\$ (2,889,325)	\$ (3,346,548)	\$ (3,232,420)	\$ (3,142,500)	\$ (3,022,249)		\$ (2,919,806)		
223.6 AF	185.01 AF							
69,630	102,330	87,512	93,225	79,893	\$ 2,692,956	100,000	\$ 2,792,956	
38	11,959	2,409	27,026	22,550	150,043	10,000	160,043	
69,667	114,290	89,920	120,251	102,443	2,842,999	110,000	2,952,999	
-	-	-	-	-	201,406	-	201,406	
-	-	-	-	-	50,353	-	50,353	
-	-	-	-	-	251,759	-	251,759	
\$ 69,667	\$ 114,290	\$ 89,920	\$ 120,251	\$ 102,443	\$ 3,094,758	\$ 110,000	\$ 3,204,758	
					88,887		88,887	
(526,890)	(162)	-	-	-	(6,103,451)	-	(6,103,451)	
\$ (3,346,548)	\$ (3,232,420)	\$ (3,142,500)	\$ (3,022,249)	\$ (2,919,806)	\$ (2,919,806)	\$ (2,809,806)	\$ (2,809,806)	
\$ (4,023,252)	\$ (3,909,125)	\$ (3,634,247)	\$(51,820,198)	\$(50,899,657)	\$(50,899,657)	\$(50,669,657)	\$ (50,669,657)	
\$ (5,991,546)	\$ (4,023,252)	\$ (3,909,125)	\$ (3,634,247)	\$(51,820,198)		\$(50,899,657)		
2,495,183	114,290	274,877	1,196,246	920,540	36,731,701	230,000	36,961,701	
(526,890)	(162)	-	(49,382,196)	-	(87,631,358)	-	(87,631,358)	
\$ (4,023,252)	\$ (3,909,125)	\$ (3,634,247)	\$(51,820,198)	\$(50,899,657)	(50,899,657)	\$(50,669,657)	\$ (50,669,657)	

ATTACHMENT 7

**EXECUTIVE SUMMARY
FROM THE
UPDATED BASIN MANAGEMENT ACTION PLAN**

1 EXECUTIVE SUMMARY

1.1 Introduction

The Seaside Groundwater Basin's (the Basin) court-appointed Watermaster's primary role is to administer and enforce the provisions of the 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. (the Decision). One provision of the Decision is the requirement to develop a Monitoring and Management Plan (M&MP), which the Watermaster developed in May 2006. The M&MP included a recommendation to prepare a Basin Management Plan. The first Basin Management Plan, titled the *Seaside Groundwater Basin Management Action Plan* (BMAP) was completed in February 2009 (HydroMetrics LLC, 2009a). This current report updates the previous BMAP with the benefit of nine additional years' worth of groundwater data and an enhanced understanding of the Basin.

1.2 Description and State of the Seaside Groundwater Basin

The Basin as delineated in Exhibit B of the Decision is bounded by the Pacific Ocean on the west, faults and bedrock on the south, bedrock on the east, and a groundwater flow divide on the northern boundary. The Decision subdivides the subbasins into four subareas: Northern Inland, Northern Coastal, Southern Inland, and Southern Coastal. The northern and southern subbasins are separated by the Laguna Seca Anticline. This feature, including the segment of the Ord Terrace Fault that offsets the anticline, forms a subsurface hydraulic barrier to groundwater flow (**Figure ES-1**). The coastal and inland subareas are not separated by any geologic features, and groundwater flow is continuous between coastal and inland subareas.

The Basin comprises three aquifers: a deep aquifer, a shallow aquifer, and surficial Aromas Sands. The deep aquifer generally consists of the Purisima Formation and Santa Margarita Sandstone. The shallow aquifer refers collectively to numerous discontinuous lenses of sand and gravel in the Paso Robles Formation overlying the Santa Margarita Sandstone and below the surficial Aromas Sand layer.



X:\2018 Projects\BMAP\GIS\BMAP_Fig1_Wells.mxd

EXPLANATION

- Adjudicated Seaside Groundwater Basin Boundary
- Basin Boundary
- Subarea Boundary
- Monitoring Well
- Production Well
- ASR Well
- Laguna Seca Anticline
- Faults

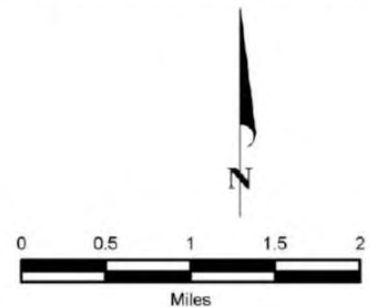


Figure ES-1. Seaside Basin Well Locations

Since the first BMAP, groundwater levels have continued to decline in all parts of the Basin except in the Southern Coastal Subarea and in shallow wells near the coast in the Northern Coastal Subarea. In those locations, groundwater levels remain stable. The continued groundwater level declines have not led to any observed seawater intrusion or other operational problems, other than the need to replace a monitoring well sampling pump so it can operate from a deeper depth. However, the declining groundwater level trend is not sustainable over the long-term.

The Basin's *Usable Stored Groundwater* is the amount of groundwater above protective groundwater elevations. It is estimated that the *Usable Stored Groundwater* is 6,350 acre-feet as of Fall 2017. The unsaturated area above the current groundwater table has approximately 90,600 acre-feet of *Total Usable Storage* space. Of the 90,600 acre-feet of total usable storage space, 62,020 acre-feet are in the Coastal and Northern Inland Subareas and 28,580 acre-feet are in the Laguna Seca Subarea. Using revised protective groundwater elevation surfaces, the sum of the *Usable Stored Groundwater* and the *Total Usable Storage* space is approximately 96,950 acre-feet.

The Basin has lost approximately 1,450 acre-feet per year of groundwater from storage since 1988. This equates to 43,500 acre-feet of groundwater lost from storage over 30 years. These losses are reflected in the lowered groundwater levels observed throughout the Basin.

A review of the Basin's Natural Safe Yield was conducted using the Basin's updated groundwater flow model. Using the same approach but different analysis period to that used in establishing the Natural Safe Yield in the Decision and in the first BMAP in 2009, the Natural Safe Yield was estimated to be 2,370 acre-feet per year over the past 30 years. This is less than the 2,850 acre-feet per year estimated in the 2009 BMAP, which was estimated over a six-year period between Water Years 2002 and 2007; and lower than the Natural Safe Yield of 3,000 acre-feet per year included in the Decision. Because the Natural Safe Yield estimate reflects the theoretical maximum amount of groundwater production that would have resulted in no decreases in groundwater in storage, it does not account for the uneven pumping distribution in the Basin which will cause localized groundwater level declines even at the lower Natural Safe Yield estimate.

Preventing future seawater intrusion requires raising groundwater levels near the coast to protective elevations. These groundwater elevations can be raised only if replenishment water is recharged into the Basin and not recovered, or pumping is reduced to less than the Natural Safe Yield.

1.3 Supplemental Water Supplies

Long-term supplemental supplies are needed to reduce pumping in the Basin to at or below the Natural Safe Yield; and to provide water which can be used to replenish the Basin. Developing these supplemental supplies is the strategy that will have the greatest impact on the Basin and allows for its long-term management and use in the future. Since the first BMAP, a number of projects have been developed by various project proponents and are in various stages of planning, environmental assessment, or construction. Most of these supplies are part of other larger programs.

The largest agency producers of groundwater in the Basin are California American Water Company (CAWC) and the City of Seaside. Supplemental water supply projects that have progressed the farthest focus on providing supplemental supplies to these two producers in order to meet their water rights as established by the Decision. These projects additionally provide water for CAWC to return to the Basin to restore the water it has over-pumped since the date of the Decision. A summary of supplemental water supply projects that are currently being considered, some of which are in the construction phase, is provided in **Table 1**. **Table 2** provides a summary of supplemental supply projects that have been implemented since the first BMAP was prepared in 2009. **Table 3** summarizes Basin management actions that have been implemented since 2009.

All of the projects and management actions, except one, are physical projects with capital costs associated with them. The exception is water conservation which does not produce additional supply but rather results in a demand reduction. Water conservation is already being given high priority by the Seaside Groundwater Basin Watermaster's (Watermaster) and its member agencies.

1.3 Supplemental Water Supplies

Long-term supplemental supplies are needed to reduce pumping in the Basin to at or below the Natural Safe Yield; and to provide water which can be used to replenish the Basin. Developing these supplemental supplies is the strategy that will have the greatest impact on the Basin and allows for its long-term management and use in the future. Since the first BMAP, a number of projects have been developed by various project proponents and are in various stages of planning, environmental assessment, or construction. Most of these supplies are part of other larger programs.

The largest agency producers of groundwater in the Basin are California American Water Company (CAWC) and the City of Seaside. Supplemental water supply projects that have progressed the farthest focus on providing supplemental supplies to these two producers in order to meet their water rights as established by the Decision. These projects additionally provide water for CAWC to return to the Basin to restore the water it has over-pumped since the date of the Decision. A summary of supplemental water supply projects that are currently being considered, some of which are in the construction phase, is provided in **Table 1**. **Table 2** provides a summary of supplemental supply projects that have been implemented since the first BMAP was prepared in 2009. **Table 3** summarizes Basin management actions that have been implemented since 2009.

All of the projects and management actions, except one, are physical projects with capital costs associated with them. The exception is water conservation which does not produce additional supply but rather results in a demand reduction. Water conservation is already being given high priority by the Seaside Groundwater Basin Watermaster's (Watermaster) and its member agencies.

Table 1. Summary of Supplemental Water Supply Projects Currently Being Considered

Project	Project Proponent	Project Type and Capacity	Benefit to Seaside Basin	Status
Monterey Peninsula Water Supply Project (MPWSP)	California American Water Company (CAWC)	Desalinate (6.4 mgd plant capacity) saltwater extracted by slant wells; 7,167 AFY desalinated water, plus ASR wells for additional storage of desalinated water	Supplemental supply for CAWC so they can meet their adjudicated right, plus return to the Basin by in-lieu recharge, over a period of 25 years, the volume that they have historically over pumped	Draft EIR approved by California Public Utilities Commission (CPUC) in August 2018 CPUC approved project in September 2018
	Monterey One Water (M1W)	Inject purified wastewater from Pure Water Monterey (PWM) Project into the Seaside Basin; 3,500 AFY	Modeling predicts an increase in Basin groundwater levels	EIR complete and infrastructure currently being constructed
Regional Urban Water Augmentation Project (RUWAP)	Marina Coast Water District (MCWD)	Distribute recycled water from the M1W Reclamation Plant; total of 1,727 AFY of recycled water to identified urban areas	Supplemental supply for two City of Seaside golf courses (Blackhorse and Bayonet, 450 AF) and 250 AF for a proposed golf course in Del Rey Oaks; total of 700 AFY supplemental supply to offset over-pumping of the Basin	Phase 1 under construction in 2018
Monterey Bay Regional Water Project (MBRWP or DeepWater Desal)	Deepwater Desal LLC (DWD)	Desalinate ocean water from a deep open ocean intake within the Monterey Canyon; 25,000 AFY potable water	Supplemental supply to meet water demand and keep pumping below the Safe Yield	Notice of Preparation/ Notice of Intent to prepare a Draft EIR/EIS issued in June 2015
People's Moss Landing Water Desalination Project (People's Project)	Moss Landing Green Commercial Park, LLC	Desalinate ocean water from an open ocean intake; 13,400 AFY potable water	Water to be used to meet needs of Monterey Peninsula area	Notice of Preparation for the People's Project issued in June 2015
Greater Monterey County Storm Water Resource Plan (SWRP)	Multiple entities	Provide more source water for PWM by identifying storm water capture opportunities and/or direct recharge of storm water	Water for use in recharging, or reducing pumping from the Basin	Planning stage

Table 2. Summary of Supplemental Supply Projects Implemented since 2009

Project	Project Proponent	Project Type and Capacity	Benefit to Seaside Basin	Status
Sand City Water Supply Project	Owner: City of Sand City Operator: CAWC	Desalinate brackish source water; up to 300 AFY desalinated water	Supplemental water supply helps reduce pumping from the Basin	Facilities completed and placed into operation in 2010
Carmel River Water Aquifer Storage and Recovery Project (aka Seaside ASR) – Phases 1 & 2	Monterey Peninsula Water Management District (MPWMD)	Divert excess Carmel River winter flows during high flow periods, treat, and inject into four ASR wells for recovery by CAWC during dry periods; Phase 1 (2 wells) = up to 2,400 AFY stored, with an average annual yield of 920 AFY; Phase 2 (2 wells) = up to 2,900 AFY stored, with an average annual yield of 1,050 AFY	Supplemental water supply for the Basin	Phase 1 completed in 2007 and operational in 2008; Phase 2 completed in stages with one ASR well operational in 2012 and the second ASR well operational in 2015
Pacific Grove Wastewater Reuse Project	City of Pacific Grove	Treat and distribute reclaimed waste water for irrigation; 100 – 125 AFY	No benefit to Basin	Facilities completed and placed into operation in 2017

Table 3. Summary of Management Actions Implemented since 2009

Action	Proponent	Project Type and Capacity	Benefit to Seaside Basin	Status
Water Conservation	All municipal suppliers	Public awareness	Reduced water demand	Ongoing.
Irrigate the Bayonet and Blackhorse Golf Courses with Water from the Ord Community Water System	City of Seaside	MCWD temporarily provided 2,160 AF to City of Seaside over a period of six years	Temporary supplemental water supply for the Basin used in-lieu of pumping by the City of Seaside	This source was used from 2010 – 2015

1.4 Groundwater Management Actions

A number of management actions could be implemented by various water agencies to delay the onset of seawater intrusion and maximize the use of groundwater. Any action that assists in appropriate management of the Basin should be encouraged and supported by the Watermaster. Of the near-term management actions reviewed in this BMAP, the following appear to be the most cost-effective, most likely to be implemented, and provide the greatest benefit to the Basin:

- Install Southern Coastal Subarea wells in coordination with the Watermaster to determine optimal pumping locations that do not cause groundwater levels to fall below protective elevations,
- Use recycled water in the Laguna Seca Subarea for golf course irrigation,
- Support water conservation,
- Coordinate with the Salinas Valley Basin Groundwater Sustainability Agency and Marina Coast Water District Groundwater Sustainability Agency to ensure that sustainable management criteria included in the neighboring Groundwater Sustainability Plans (GSPs) do not limit the Watermaster's sustainable management of the Basin, and
- Enhance storm water recharge of the City of Seaside's storm water.

The recommended near-term actions are not intended to provide long-term solutions for restoring groundwater levels in the Basin, although some near-term solutions may have long-term benefits.

1.5 Other Recommendations

This updated BMAP identifies other recommendations that need to be addressed and pursued by the Watermaster.

- Use the groundwater flow model to evaluate the combination of Basin management actions and supplemental water supply projects to determine their ability to raise groundwater levels to protective elevations.
- Re-evaluate the Basin's natural safe yield given the impacts of various projects currently being implemented.
- Continual annual analyses of groundwater levels and quality.

ATTACHMENT 8

**EXECUTIVE SUMMARY
FROM THE
WY 2019 SEAWATER INTRUSION ANALYSIS REPORT**

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 for Water Year 2019 and prior, no seawater intrusion has historically been or is currently observed in existing monitoring and production wells in the Seaside Groundwater Basin. Even though seawater intrusion is not occurring, there are ongoing detrimental groundwater conditions that pose a potential threat of seawater intrusion. These are summarized 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 continues to be below sea level. The Water Year 2019 2nd quarter (winter/spring) deep aquifer coastal groundwater levels are more than 12 feet below sea level and the 4th quarter (summer/fall) levels are more than 30 feet below sea level.

- 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 one of the three shallow wells' groundwater levels are below protective elevations. Groundwater elevations at PCA-W shallow are just above its protective elevation, after falling below its protective elevation last fall.

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

- All groundwater samples for Water Year 2019 from depth-discreet monitoring wells plot generally in a single cluster on Piper diagrams, with no water chemistry changes towards seawater.
- In some production wells, groundwater quality plot on Piper diagrams is different than the water quality in 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.
- Chloride concentration trends were stable for most monitoring wells. One monitoring well, FO-09 shallow, has sustained increased chloride concentrations in all three samples taken during Water Year 2019. The increase in concentrations from the previous year are between 20 and 30 mg/l. The increase is greater than fluctuations observed historically over the period of record. Elevated concentrations in themselves do not indicate seawater intrusion, however, this well should be carefully observed over the next year to determine if the increasing chloride concentrations are temporary or not.
- Sodium/chloride molar ratios in the monitoring wells remained constant or increased over the past year. Monitoring well FO-09 shallow experienced an increase in chloride as mentioned above, but its sodium/chloride ratio in Water Year 2019 is within the range of historical ratios and has not fallen below the 0.86 ratio that may identify seawater intrusion as the source of chloride as opposed to a domestic waste water source.
- Maps of chloride concentrations for the shallow aquifer do not show chlorides increasing towards the coast. The deep aquifer maps show that higher chloride concentrations are limited to coastal monitoring wells PCA-West deep and MSC deep, but these are not indicative of seawater intrusion.
- Induction logging data at the coastal Sentinel Wells do not show historical or recent changes over time that are indicative of seawater intrusion.

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 0.5 feet per year.

Native groundwater production in the Seaside Groundwater Basin for Water Year 2019 was 3,269.2 acre-feet, which is 94 acre-feet more than Water Year 2018. The amount of native groundwater pumped in Water Year 2019 is 91 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.

Based on recent increases in chloride concentrations at monitoring well FO-9 shallow and its proximity to known intrusion in the Salinas Valley, it is recommended that groundwater quality results from it be reviewed after each sampling event to identify if the recent increases are part of natural fluctuations or an ongoing increasing trend. If the March 2020 sample has a greater concentration than this year's highest concentration of 80 mg/L, it is recommended that its sampling frequency be increased to quarterly as a precaution.

With the exception of FO-09 shallow, data analyzed for this report did not deviate significantly from historical data. Therefore, besides the additional precautions recommended for the FO-09 shallow monitoring well, 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. The first such project likely to be implemented is Pure Water Monterey. Monitoring well construction is underway and the Watermaster will identify wells that would provide the most useful information to be included in future SIARs.

therefore important that data from new monitoring wells are reported to the Watermaster and taken into consideration in future SIARs. The first such project likely to be implemented is Pure Water Monterey. Monitoring well construction is underway and the Watermaster will identify wells that would provide the most useful information to be included in future SIARs.

ATTACHMENT 9

SEASIDE GROUNDWATER BASIN 2020 MONITORING AND MANAGEMENT PROGRAM

Seaside Groundwater Basin 2020 Monitoring and Management Program

The tasks outlined below are those that are anticipated to be performed during 2020. Some Tasks listed below are specific to 2020, 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 (\$19,000)	<p>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:</p> <ul style="list-style-type: none"> • 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. <p>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.</p> <p>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.</p>

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 (\$2,000)	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)	<p>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.</p> <p>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.</p> <p>No enhancements to the database are anticipated during 2020.</p>
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 2020.
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 2020.
I. 2 b. 2 Collect Monthly Manual Water Levels (\$3,726)	<p>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.</p> <p>This Task includes the purchase of one datalogger and parts for the datalogger to keep in inventory as a spare if needed.</p>

I. 2. b. 3 Collect Water Quality Samples. (\$42,801)	<p>Water quality data will be collected quarterly from certain of the monitoring wells, but will no longer be collected from the four coastal Sentinel Wells. Discontinuing water quality sampling in those wells is the result of the finding made in 2018 that the water quality samples being extracted from those wells are not representative of the aquifer. Those wells were designed for the purpose of electric induction logging, and will therefore continue to be induction logged twice a year in WY 2020.</p> <p>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 2020, but will no longer be performed on the Watermaster’s coastal Sentinel Wells as discussed above.</p> <p>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.</p> <p>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.</p> <p>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 2020.</p>
I. 2. b. 4 Update Program Schedule and Standard Operating Procedures. (\$0)	<p>All recommendations from prior reviews of the data collection program have been implemented. No additional work of this type is anticipated in 2020.</p>
I. 2. b. 5 Monitor Well Construction (\$0)	<p>An additional monitoring well was installed in 2009. No further work of this type is anticipated in 2020.</p>

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 only work remaining under this task is for MPWMD to prepare and provide the data appendix to the Consultant that prepares the SIAR.
I.2.b.7 CASGEM Data Submittal (\$8,940)	On the Watermaster’s behalf MPWMD will compile and submit data on the Watermaster’s “Voluntary Wells” into the State’s CASGEM groundwater management database. The term “Voluntary Well” refers to a well that is not currently having its data reported into the CASGEM system, but for which the Watermaster obtains data. This will be done in the format and on the schedule required by the Department of Water Resources under the Sustainable Groundwater Management Act.
<i>I. 3 Basin Management</i>	
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 2020.
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 (\$20,000)	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 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 2020 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.

<p>I. 3. b. Complete Preparation of Basin Management Action Plan (\$0)</p>	<p>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</p>
<p>I. 3. c. Refine and/or Update the Basin Management Action Plan (\$0)</p>	<p>In 2019 the BMAP was updated based on new data and knowledge that has been gained since it was prepared in 2009.</p> <p>No further work of this type is anticipated in 2020. 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.</p>
<p>I. 3. d. Evaluate Coastal Wells for Cross-Aquifer Contamination Potential (\$0)</p>	<p>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.</p> <p>No further work of this type is anticipated in 2020.</p>

**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.

<p>I. 4. b. Focused Hydrogeologic Evaluation (\$0)</p>	<p>MPWMD attempted to compile historical and current water quality data in the coastal area to provide more in-depth evaluation of conditions in the shallow Dune Sand/Aromas Sand aquifer in the vicinity of the Sand City Public Works well, where unique water quality conditions and variability have recently been observed as discussed at TAC meetings. However, it was found that no historical water quality data from Cal Am's now-abandoned wells existed, and consequently it was not possible to answer the question of why water quality in the Sand City Public Works well differs from water quality in other wells in the Basin. The Sand City desalination plant could be affecting water quality in this area, but without the prior water quality data from now-abandoned wells, this could not be determined. The results of this work were summarized in 2013 in a brief Technical Memorandum prepared by MPWMD with conclusions and recommendations, and no further work on this matter is planned.</p>
<p>I. 4. c. Annual Report- Seawater Intrusion Analysis (\$25,322)</p>	<p>At the end of each water year, a Consultant will reanalyze all water quality data. Water level and water quality data will be provided to the Consultant in MS Access format. The Consultant will put this data into a report format and will include it as an attachment to the Seawater Intrusion Analysis Report. Semi-annual chloride concentration maps will be produced for each aquifer in the basin. Time series graphs, trilinear graphs, and stiff diagram comparisons will be updated with new data. The annual EM logs will be analyzed to identify changes in seawater wedge locations. All analyses will be incorporated into an annual report that follows the format of the initial, historical data report. Potential seawater intrusion will be highlighted in the report, and if necessary, recommendations will be included. The annual report will be submitted for review by the TAC and the Board. Modifications to the report will be incorporated based on input from these bodies, as well as Watermaster staff.</p>
<p>I. 4. d Complete Preparation of Seawater Intrusion Response Plan (\$0)</p>	<p>The Watermaster's Consultant (HydroMetrics) completed preparation of the long-term Seawater Intrusion Response Plans (SIRP) in February 2009. The Sections that are included in the SIRP are: Section 1 – Background and Purpose Section 2 – Consistency with Other Documents Section 3 – Seawater Intrusion Indicators and Triggers Section 4 –Seawater Intrusion Contingency Actions Section 5 - References No further work on the SIRP is anticipated in 2020.</p>
<p>I. 4. e. Refine and/or Update the Seawater Intrusion Response Plan (\$0)</p>	<p>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 2020.</p>
<p>I. 4. f. If Seawater Intrusion is Determined to be Occurring, Implement Contingency Response Plan (\$0)</p>	<p>The SIRP will be implemented if seawater intrusion, as defined in the Plan, is determined by the Watermaster to be occurring.</p>

ATTACHMENT 10

MEMO DISCUSSING
SEASIDE GROUNDWATER BASIN NATURAL SAFE YIELD
ALLOCATIONS TO PRODUCERS

MEMORANDUM

TO: Seaside Groundwater Basin Producers

FROM: Robert S. Jaques, Technical Program Manager, Seaside Basin Watermaster

DATE: March 18 , 2019

SUBJECT: Seaside Groundwater Basin Natural Safe Yield Allocations to Producers

Introduction

As required by the Amended Seaside Groundwater Basin Adjudication Decision dated February 2007 (referred to herein simply as the “Decision”), ramp-downs in pumping are to be performed triennially until the initially authorized Operational Yield (OY) of 5,600 acre-feet per year (AFY) is reduced to the Basin’s Natural Safe Yield (NSY).

The purpose of this Memorandum is to describe how the allocation of water rights to each of the Producers that are parties to the Decision could be calculated once these ramp-downs to achieve NSY production levels have been completed. These allocations will be the amounts that each Producer can pump on an ongoing basis and be in compliance with the Decision.

The Memorandum also briefly provides information on the water rights impacts if the initial NSY established by the Decision were to be reduced as recommended in the recently completed Draft Updated Basin Management Action Plan (Updated BMAP). No action or decision on using a lower NSY has been made, and no consideration of that recommendation by the Watermaster Board is expected until at least the Board’s June 2019 meeting.

The Decision’s Breakdown of NSY Between Subareas of the Basin

The Decision breaks the Seaside Basin down into these four subareas:

- Northern Coastal Subarea
- Southern Coastal Subarea
- Northern Inland Subarea
- Laguna Seca Subarea

The Decision used the NSY approach to establish the total quantity of water that Producers may ultimately pump from the Basin on an ongoing basis (their long-term OYs), and laid out how the long-term OYs are to be allocated amongst the various Producers. Under the NSY approach used in the Decision, Alternative Producers have first rights to the NSY, and Standard Producers share in the amount of NSY remaining after the Alternative Producer allocations have been made. The 5,600 AFY Basinwide initial OY consisted of an OY of 4,611 AFY for the Coastal Subarea and an OY of 989 AFY for the Laguna Seca Subarea.

Section III.A.17 of the Decision states that for the Basin as a whole the NSY is between 2,581 and 2,913 AFY, that for the Coastal Subarea the NSY is between 1,973 and 2,305 AFY, and that for the Laguna Seca Subarea the NSY is 608 AFY.

However, Section III.A.20 of the Decision states that the initially assumed Basinwide NSY is 3,000 AFY. In the range of values stated in the Decision for the Coastal Subarea (1,973 to 2,305 AFY) , if the upper value of 2,305 AFY is added to the 608 AFY for the Laguna Seca Subarea, the resultant NSY is only 2,913 AFY for these two Subareas. This is slightly less than the Basinwide NSY of 3,000 AFY cited in Section III.A.20. This apparent anomaly in the Decision is discussed below in the section titled *Pumping Ramp-down Calculations*.

Alternative and Standard Producer Allocations

Table 2 on page 21 of the Decision sets forth the initial Alternative Producer allocations in the Coastal and Laguna Seca Subareas. These are shown below in Table 1.

In 2015 Alternative Producer Calabrese converted 8 AFY of its Alternative Production allocation to a Standard Production allocation, leaving it with 6 AFY of Alternative Production. As a result of this the Alternative Production allocations were revised to those shown below in Table 2.

Table 1 on page 19 of the Decision sets forth the initial Standard Producer percentages of OY in the Coastal and Laguna Seca Subareas as shown below in Table 3. Shown in the right-hand column of Table 3 are the percentages of the total Standard Producer allocation for each of these Standard Producers.

As a result of Producer Calabrese's 2015 partial conversion of its Alternative Production allocation to a Standard Production allocation, giving it 8 AFY of Standard Production, the Standard Production OY allocation percentages were revised to those shown below in Table 4.

Pumping Ramp-down Calculations

The Decision requires only Standard Producers to ramp-down in order for pumping to be reduced to the NSY level, unless all Standard Producers are ramped-down to zero production, in which case ramp-downs are also required of Alternative Producers. If it is necessary to ramp-down Alternative Producers, the amount of ramp-down required would be allocated amongst the Alternative Producers in proportion to their share of the initial OY of the subarea within which they are located.

3,000 AFY NSY

If it is assumed that the intent of the Decision was to set the Basinwide NSY at 3,000 AFY, and that the ranges of values for NSY cited in Section III.A.17 were simply to provide background information, then the allocation of long-term OY would be calculated on the Basin as a whole, and not on a subarea-by-subarea basis. This subsection describes the calculation of long-term OYs based on this assumption.

Section III.A.20 of the Decision establishes an OY of 4,611 AFY for the Coastal Subarea, and in that subarea the total allocation to Alternative Producers (including the Calabrese partial conversion to Standard Production) is 735 AFY as shown below in Table 2. Therefore, the OY available to Standard Producers in the Coastal Subarea is $4,611 - 735 = 3,876$ AFY. Using the allocation percentages in Table 4, the amount of OY available to each Standard Producer in the Coastal Subarea before any ramp-downs occur is shown below in Table 5.

Similarly, Section III.A.20 of the Adjudication Decision establishes an OY of 989 AFY for the Laguna Seca Subarea, and in that subarea the total allocation to Alternative Producers is 644 AFY as shown above in Table 2. Therefore, the OY available to Standard Producers in the Laguna Seca Subarea is $989 - 644 = 345$ AFY. Using the allocation percentages in Table 4, the amount of OY available to

each Standard Producer in the Laguna Seca Subareas is shown in Table 5. Note that there is only one Standard Producer in the Laguna Seca Subarea – California American Water.

The total amount of OY available to each Standard Producer for all subareas Basinwide before any ramp-downs occur is shown in Table 6, along with the percentage of total OY available to each Standard Producer Basinwide. In that table the OY available to California American Water is the sum of its OYs in the Coastal and Laguna Seca Subareas (3,505 + 345 = 3,850 AFY).

If the OY is ramped-down to an NSY of 3,000 AFY for the Basin as a whole, the total amount of long-term OY available to Standard Producers is $3,000 - 735 - 644 = 1,621$ AFY. Since all of the required ramping-down can be accomplished by the Standard Producers, the Alternative Producers do not have to ramp-down.

Table 7 shows the long-term OYs for all Producers Basinwide if the Basinwide OY is ramped-down to 3,000 AFY.

The 3,000 AFY approach was used to arrive at California American Water's 1,474 AFY of long-term OY that was reported in the March 2018 FEIR/EIS for the Monterey Peninsula Water Supply Project. As seen in Table 7, that figure rose slightly to 1,479 AFY as result of Calabrese's later partial conversion of its Alternative Production to Standard Production.

As a result of the ramp-downs that have already been implemented, current OY allocations Basinwide total 3,360 AFY. Achieving a Basinwide OY of 3,000 AFY would require a ramp-down of 360 AFY in WY 2021.

2,913 AFY NSY

A lengthy discussion of the pumping ramp-downs was held between Russ McGlothlin (Watermaster's legal counsel), Lori Girard (California American Water's legal counsel), and Watermaster staff (Laura Paxton and Bob Jaques) on March 6, 2019. The apparent anomaly in the Decision regarding the Basin's NSY, mentioned above, was one topic explored in that discussion.

The apparent anomaly suggests that the Decision may (1) simply have rounded up the 2,913 AFY figure to 3,000 AFY, recognizing that subsequent studies might arrive at an updated set of NSYs for each of these subareas, or (2) may have contemplated that a portion of the Basinwide NSY comes from the other of the Basin's four subareas, namely the Northern Inland Subarea. Of the four persons who were in the March 6 discussion, only Mr. McGlothlin actually participated in the legal process that led to the Decision. He felt that the 3,000 AFY figure was simply a rounding-up of the 2,913 AFY, and that the intent of the Decision actually was for the NSY for the Coastal Subarea to be between 1,973 and 2,305 AFY, and that the NSY for the Laguna Seca Subarea was to be 608 AFY. Since there are no Producers with wells in the Northern Inland Subarea, it would have been impossible to allocate any portion of the Northern Inland Subarea's NSY to any of the Producers. Also, in the Decision the NSY of between 1,973 and 2,305 AFY for the Coastal Subarea is not broken down between the Southern Coastal Subarea and the Northern Coastal Subarea, which together constitute the Coastal Subarea. Therefore, it is not possible to allocate the Coastal Subarea NSY within these two subareas.

For the reasons stated in the paragraph above, one could conclude that the intent of the Decision was that the Basinwide NSY was intended by the Decision to be a maximum of 2,913 AFY, and that this amount was to be allocated to just the Coastal and Laguna Seca Subareas. Under that assumption, the

maximum NSY allocated to the Coastal Subarea would be 2,305 AFY and the NSY allocated to the Laguna Seca Subarea would be 608 AFY.

Section III.B.2 of the Decision states that the OYs for both subareas (the Coastal Subarea and the Laguna Seca Subarea) are to be reduced by ramp-downs until the OY in each subarea is equivalent to the NSY for that subarea.

Ramping down the OYs in the Coastal Subarea to reach the NSY of 2,305 AFY, with a total allocation to Alternative Producers in the Coastal Subarea of 735 AFY, would require the Standard Producers to ramp-down to $2,305 - 735 = 1,570$ AFY. No ramp-down by Alternative Producers in that subarea would be necessary to reach the 2,305 AFY level.

Ramping down the OYs in the Laguna Seca Subarea would require a 100% ramp-down of the one Standard Producer's (California American Water) allocation, and partial ramp-downs for each of the Alternative Producers, to reach the NSY of 608 AFY.

Using this method of calculation, the allocations to all of the Producers would be as shown below in Table 8.

As a result of the ramp-downs that have already been implemented, current OY allocations Basinwide total 3,360 AFY. Achieving a Basinwide OY of 2,913 AFY would require a ramp-down of 447 AFY in WY 2021.

Updated BMAP

Using the Watermaster's Seaside Basin Groundwater Model (that did not exist at the time the Decision was prepared) and more recent data from the Watermaster's well monitoring program, the Updated BMAP developed a new NSY of 2,370 AFY figure for the Basin as a whole. Under this new NSY, 2,570 AFY of was in the Coastal and Inland Subareas, and -200 AFY (a negative NSY) was in the Laguna Seca Subarea. A negative NSY means that more water is naturally being lost from a subarea than is coming into the subarea to recharge it through precipitation and subsurface groundwater flow.

Having a negative NSY for the Laguna Seca Subarea would mean that all pumping in that subarea would have to be eliminated. This would be untenable. The negative NSY of 200 AFY for that subarea will hopefully be mitigated in conjunction with the development of the Groundwater Sustainability Plan (GSP) for the adjacent Monterey Subarea of the Salinas Valley Basin. The Salinas Valley Basin Groundwater Sustainability Agency and the Marina Coast Water District Groundwater Sustainability Agency will be working together to coordinate the development of that GSP. That GSP must be completed by January 31, 2022. Once that GSP has been developed, it would be appropriate to reevaluate the Laguna Seca Subarea NSY to determine if changes in Producer allocations in that subarea will be necessary in order to achieve NSY.

Watermaster staff will participate in the development of the GSP through membership on the committees that these GSAs have established to review and comment on draft chapters of the GSP as it is being developed by their consultants.

At this time it would not be appropriate to reduce Producer allocations below the levels described in the *Pumping Ramp-down Calculations* above.

Historical Pumping and Ramp-Downs

Table 9 provides a summary of each Producer's pumping in recent Water Years (WY - October 1 to September 30) as well as the ramped-down OY for each Producer. The blue-highlighted production figures indicate that the amount pumped exceeded the OY available. As the table indicates, the only Producers that have been unable, at least in some years, to reduce their pumping to stay within the OY available to them are California American Water and the City of Seaside's municipal system.

The two far right-hand columns of Table 9 show the projected Final Allocations, taken from Tables 7 and 8, that each Producer would have depending on which NSY value (3,000 AFY or 2,913 AFY) is used in the final ramp down calculation. Regardless of which NSY value is used, it appears that only California American Water and the City of Seaside's municipal system would have difficulty reducing their pumping to stay within the long-term OY available to them.

TABLES

Table 1. Initial Alternative Production Allocations

Coastal Subarea	
Producer	Allocation, AFY
Seaside Golf Courses	540
SNG	149
Calabrese	14
Mission Memorial	31
Sand City	9
Subtotal Coastal Subarea	743
Laguna Seca Subarea	
Producer	Allocation, AFY
Pasadera	251
Bishop	320
York School	32
Laguna Seca County Park	41
Subtotal Laguna Seca Subarea	644

Table 2. Revised Alternative Production Allocations

Coastal Subarea	
Producer	Allocation, AFY
Seaside Golf Courses	540
SNG	149
Calabrese	6
Mission Memorial	31
Sand City	9
Subtotal Coastal Subarea	735
Laguna Seca Subarea	
Producer	Allocation, AFY
Pasadera	251
Bishop	320
York School	32
Laguna Seca County Park	41
Subtotal Laguna Seca Subarea	644

Table 3. Initial Percentages of Operating Yield Allocated to Standard Producers

Coastal Subarea		
Producer	Percentage of Total Subarea OY	Percentage of Subarea Standard Producer Allocation
California American Water	77.55	90.6
City of Seaside (Municipal)	6.36	7.43
Granite Rock Company	0.6	0.7
D.B.O. Development No. 27	1.09	1.27
Subtotal Coastal Subarea	85.60	100.00
Laguna Seca Subarea		
Producer	Percentage of Total Subarea OY	Percentage of Subarea Standard Producer Allocation
California American Water	45.13	100
Subtotal Laguna Seca Subarea	45.13	100.00

Table 4. Revised Percentages of Operating Yield Allocated to Standard Producers

Coastal Subarea		
Producer	Percentage of Total Subarea OY	Percentage of Subarea Standard Producer Allocation
California American Water	77.55	90.44
City of Seaside (Municipal)	6.36	7.42
Granite Rock Company	0.6	0.70
D.B.O. Development No. 27	1.09	1.27
Calabrese	0.15	0.17
Subtotal Coastal Subarea	85.75	100.00
Laguna Seca Subarea		
Producer	Percentage of Total Subarea OY	Percentage of Subarea Standard Producer Allocation
California American Water	45.13	100
Subtotal Laguna Seca Subarea	45.13	100

Table 5. OY Available to Standard Producers in the Coastal and Laguna Seca Subareas Before Any Ramp-downs Occur

Coastal Subarea		
Producer	Percentage of Subarea Standard Allocation Multiplied by Amount of OY Available	OY Available, AFY
California American Water	90.44 x 3,876	3505
City of Seaside (Municipal)	7.42 x 3,876	288
Granite Rock Company	0.7 x 3,876	27
D.B.O. Development No. 27	1.27 x 3,876	49
Calabrese	0.17 x 3,876	7
Subtotal Coastal Subarea		3876
Laguna Seca Subarea		
Producer	Percentage of Subarea Standard Allocation Multiplied by Amount of OY Available	OY Available, AFY
California American Water	100.00 x 345	345*
Subtotal Laguna Seca Subarea		345

* Section III.B.2 of the Decision states that of the 989 AFY total OY for the Laguna Seca Subarea, 644 AFY is allocated to the Alternative Producers and 345 AFY is allocated to the Standard Producers. Since California American Water is the only Standard Producer in the Laguna Seca Subarea, this establishes California American Water's Laguna Seca Subarea OY allocation of 345 AFY.

Table 6. Total OY Basinwide Available for Each Standard Producer Before Any Ramp-downs Occur

Producer	OY Available, AFY	Percentage of Available OY
California American Water	3505 + 345 = 3850	91.22%
City of Seaside (Municipal)	288	6.81%
Granite Rock Company	27	0.64%
D.B.O. Development No. 27	49	1.17%
Calabrese	7	0.16%
Total for All Subareas	4221	100.00%

Table 7. Total Long-term OYs Available to All Producers After Ramp-downs Are Complete, if the NSY is 3,000 AFY

Producer	Percentage of Available OY Multiplied by Amount of NSY Available	Long-term OY Available, AFY
Standard Producers		
California American Water	91.22 x 1,621	1479
City of Seaside (Municipal)	6.81 x 1,621	110
Granite Rock Company	0.64 x 1,621	10
D.B.O. Development No. 27	1.17 x 1,621	19
Calabrese	0.16 x 1,621	3
Total for All Standard Producers		1621
Alternative Producers		
Seaside Golf Courses		540
SNG		149
Calabrese		6
Mission Memorial		31
Sand City		9
Pasadera		251
Bishop		320
York School		32
Laguna Seca County Park		41
Total for All Alternative Producers		1379
	Basinwide Total	3000

Table 8. Total Long-term OYs Available to All Producers After Ramp-downs Are Complete if the Basinwide NSY is 2,913 AFY

Producer	Percentage of Available OY Multiplied by Amount of NSY Available	Long-term OY Available, AFY
Standard Producers		
California American Water	90.44 x 1,570	1420
City of Seaside (Municipal)	7.42 x 1,570	116
Granite Rock Company	0.70 x 1,570	11
D.B.O. Development No. 27	1.27 x 1,570	20
Calabrese	0.17 x 1,570	3
Total for All Standard Producers		1570
Alternative Producers		
Seaside Golf Courses		540
SNG		149
Calabrese		6
Mission Memorial		31
Sand City		9
Pasadera	251/644 x 608	237
Bishop	320/644 x 608	302
York School	32/644 x 608	30
Laguna Seca County Park	41/644 x 608	39
Total for All Alternative Producers		1343
	Basinwide Total	2913

Table 9. Historical Production and OY Allocations

Producer	Type of Producer	WY 2014		WY 2015		WY 2016		WY 2017		WY 2018		Projected WY 2021 OY Allocation	
		Actual Production AFY	OY Allocation After 2nd Ramp-down	Actual Production AFY	OY Allocation After 3rd Ramp-down	Actual Production AFY	OY Allocation After 3rd Ramp-down	Actual Production AFY	OY Allocation After 3rd Ramp-down	Actual Production AFY	OY Allocation After 4th Ramp-down	Actual Production AFY	OY Allocation After 4th Ramp-down
<i>Coastal Subareas</i>													
California American Water (Coastal Suba	Standard	2,871	2,669	2,437	2,254	1,562	2,254	1,730	2,254	1,926	1,792	1479*	1420*
City of Seaside (Municipal)	Standard	224	219	185	185	195	185	188	185	185	147	110	116
Granite Rock Company	Standard	0	21	0	17	0	17	0	17	0	14	10	11
DBO Development No. 27	Standard	0	37	0	32	0	32	0	32	0	25	19	20
Calabrese (Cypress Pacific Inv.)	Standard			0	4	0	4	0	4	0	3	3	3
City of Seaside (Golf Courses)	Alternative	1	540	312	540	458	540	439	540	512	540	540	540
Sand City	Alternative	1	9	1	9	1	9	0	9	1	9	9	9
SNG (Security National Guaranty)	Alternative	0	149	0	149	0	149	0	149	0	149	149	149
Calabrese (Cypress Pacific Inv.)	Alternative	0	14	0	6	0	6	0	6	0	6	6	6
Mission Memorial (Alderwoods)	Alternative	25	31	18	31	14	31	14	31	14	31	31	31
<i>Laguna Seca Subarea</i>													
CAW - Laguna Seca Subarea	Standard	362	147	328	48	317	48	299	48	303	0	0	0
Nicklaus Club Monterey	Alternative	207	251	193	251	112	251	155	251	143	251	251	237
Laguna Seca Golf Resort (Bishop)	Alternative	300	320	249	320	224	320	193	320	240	320	320	302
York School	Alternative	22	32	18	32	14	32	14	32	17	32	32	30
Laguna Seca County Park	Alternative	29	41	21	41	17	41	16	41	22	41	41	39
<i>Basin Totals</i>		4,040	4,480	3,762	3,920	2,913	3,920	3,049	3,920	3,363	3,360	3,000	2,913

Notes:

1. Blue shading indicates production exceeded allocation.
2. Ramp-downs shown above through WY 2018 are based on ramping-down 10% triennially from a starting Basinwide OY of 5,600 AFY to an ending Basinwide OY of 3,000 AFY to match the initial NSY of 3,000 AFY.
3. Ramp-downs shown in the two right-hand columns show two sets of final ramp-down figures: (1) Ramp-down to a final Basinwide OY of 3,000 AFY and (2) ramp-down to a final Basinwide OY of 2,913 AFY.

* This is California American Water's long-term OY for all subareas.

ATTACHMENT 11

**DISCUSSION OF USING SUSTAINABLE YIELD VS. NATURAL
SAFE YIELD FOR BASIN MANAGEMENT**

**Discussion Paper of Potential Pros and Cons of Using the Sustainable Yield Approach
in Place of Using Natural Safe Yield for Basin Management**

Natural Safe Yield Approach

Discussion. The Adjudication Decision (“Decision”) uses the Natural Safe Yield (NSY) approach to establish the total quantity of water that producers may pump from the Seaside Basin, and to allocate that quantity amongst the various producers. Under the NSY approach used in the Decision, Alternative Producers have first rights to the NSY, and Standard Producers share in the amount of NSY remaining after the Alternative Producer allocations have been made. The Decision established an initial Basin-wide NSY at 3,000 AFY, and allocated 1,387 AFY of this NSY to Alternative Producers. That left $3,000 - 1,387 = 1,613$ AFY to be divided among the Standard Producers. Subsequent to the date of the Decision, one of the Alternative Producers converted part of its allocation to a Standard Producer allocation, which had the effect of increasing the 1,613 AFY figure to 1,621 AFY. If the lower NSY of 2,370 AFY reported in the Updated BMAP were to replace the Decision’s initial NSY of 3,000 AFY, the Standard Producers would need to reduce their collective annual pumping to $2,370 - 1,379 = 991$ AFY. This means the Standard Producers would have to collectively reduce their pumping by an additional 630 AFY.

It would likely be very difficult if not impossible for some of the Standard Producers, particularly CAWC and the Seaside Municipal system, to accomplish making these additional pumping reductions while still supplying the water demands of their customers.

Pros and Cons of Continuing to Use the NSY Approach for Basin Management.

PROS	CONS
1. This is the approach prescribed by the Decision, so no change from the current approach would be required.	1. There are some oversights in the numbers included in the Decision which slightly complicate the calculation of Producers’ water rights after the pumping ramp-downs are all completed. However, this should be fairly easy to work through.
2. If the 3,000 AFY NSY figure in the Decision continues to be used, no action will be required.	2. The Watermaster’s hydrogeologic consultants report that using the NSY approach in the Decision is no longer appropriate for estimating yield. The NSY figure in the Decision was developed in 2005 based on a simplified water balance equation that accounted for some, but not all, flows in the groundwater system. It has now become apparent that there are significant flows across the Basin’s boundaries that were not accounted for in the 2005 analysis. Unless those flows are also accounted for, the relationship between

PROS	CONS
<p>3. If the lower NSY figure of 2,370 AFY is used, the recalculation of water rights to each Producer would be relatively straightforward by following the same calculation approach set forth in the Decision. As noted in Con No. 1, however, there are some oversights in the Decision which would need to be resolved.</p>	<p>pumping, intrusion and storage identified in 2005 will be incorrect.</p>
	<p>3. The Watermaster’s hydrogeologic consultants recommend that Basin management use a “sustainable” or “operational” yield approach that takes advantage of the Seaside Basin groundwater model. This would allow the maximum pumping rate to reflect all of the flows across the basin boundaries as well as the locations of wells and the introduction of new sources of recharge (injection, stormwater percolation, etc.). They feel that making this change from using the NSY approach is essential to linking long-term Basin management to reality.</p>
	<p>4. Given the modeling done to date, and evidenced by continuing declining groundwater levels even in years where pumping has been close to 3,000 AFY, Material Damage is more likely to occur if the 3,000 AFY NSY continues to be used rather than using a lower value for NSY.</p>
	<p>5. It is very likely that greater pumping reductions will be required of many of the Producers if the Sustainable Yield approach is used in place of the NSY approach. It may be difficult if not impossible for some Producers to make these additional pumping reductions while still supplying the water demands of their customers.</p>
	<p>6. Because of the historical overpumping from the Basin, regardless of the approach that is used for Basin management, be it NSY or SY, it is very unlikely that even the reduced NSY pumping levels recommended in the Updated Basin Management Action Plan will achieve protective groundwater levels. The Basin would therefore still be at risk of seawater intrusion at some time in the future. An additional source(s) of water that can be injected into the Basin to raise groundwater levels, and to maintain them at protective water levels, will be necessary regardless of which approach is used for Basin management. Therefore, the expense and complexity of changing to the SY approach may not be justified.</p>

Sustainable Yield Approach

Discussion. As described in the recent BMAP Update, the simplified method used in the Adjudication Decision to estimate Natural Safe Yield is now recognized as not being complete enough to take into account the complexities of inflows and outflows that are occurring in the Basin. These ultimately affect the amount of groundwater that can be sustainably pumped from the Basin without causing negative effects (Material Injury). A

more complete approach to managing the Basin would be to use the Seaside Basin groundwater model to optimize the amount of pumping that can be sustained (the Sustainable Yield) at existing and/or new wells. The Sustainable Yield would take into account management targets such as stopping declining groundwater levels or meeting protective groundwater elevations.

The SY analysis would involve making numerous assumptions and evaluations. These could include such things as alternative pumping scenarios and redistribution of pumping locations and quantities. The SY for the entire Basin would be the sum of the production quantities that each well could produce and still prevent Material Injury from occurring.

Pros and Cons of Changing to Using the Sustainable Yield Approach for Basin Management.

PROS	CONS
<p>1. This approach would more realistically reflect the characteristics of the Basin and more accurately predict how much pumping could be sustainably supported without causing Material Damage in the Basin.</p>	<p>1. Performing an SY analysis would be costly. The cost proposal from Montgomery & Associates to do this work is well over \$100,000. The proposal notes that modeling the long-term optimization of integrated groundwater management at a basin-wide scale is a complex process with several technical challenges that could arise and could lead to additional effort (and cost) not anticipated in the cost proposal.</p>
	<p>2. Changing from the NSY approach to the SY approach would first have to be approved by the Court. Documentation justifying making this change would have to be prepared and submitted to the Court. This would involve considerable staff, consultant, and legal counsel time and effort.</p>
	<p>3. The SY analysis would then need to be prepared and submitted to the Court for its review and approval before it could be used to replace the NSY approach used in the Decision. If the Court approved the SY analysis, then the Decision would need to be amended to reflect this. All of this would involve considerable staff and legal counsel time and effort.</p>
	<p>4. If SY were used instead of NSY, a new method of allocating pumping rights to each producer would have to be developed. This could be a contentious and time-consuming undertaking.</p>
	<p>5. It is very likely that greater pumping reductions will be required of many of the Producers if the Sustainable Yield approach is used in place of the NSY approach. It may be difficult if not impossible for some Producers to make these additional pumping reductions while still supplying the water demands of their customers.</p>

PROS	CONS
	<p>6. Because of the historical overpumping from the Basin, regardless of the approach that is used for Basin management, be it NSY or SY, it is very unlikely that even the reduced NSY pumping levels recommended in the Updated Basin Management Action Plan will achieve protective groundwater levels. The Basin would therefore still be at risk of seawater intrusion at some time in the future. An additional source(s) of water that can be injected into the Basin to raise groundwater levels, and to maintain them at protective water levels, will be necessary regardless of which approach is used for Basin management. Therefore, the expense and complexity of changing to the SY approach may not be justified.</p>

ATTACHMENT 12

GEOCHEMICAL IMPACTS ASSESSMENT

TECHNICAL MEMORANDUM

Pueblo Water Resources, Inc.
4478 Market St., Suite 705
Ventura, CA 93003

Tel: 805.644.0470
Fax: 805.644.0480



To: Jonathan Lear, CHG; District Hydrogeologist

Date: September 12, 2019

From: Stephen Tanner, PE; Principal Engineer *ST*

Project No: 12-0048

Cc.: Stephen A. Short, PhD., Senior geochemist

Subject: Supplemental Bench Testing of PWM Waters for Artificial Recharge of the Santa Margarita Sandstone Aquifer System

Jon-

In accordance with our your request, this supplemental technical memorandum summarizes the results of additional bench scale testing of Pure Water Monterey (PWM) treated waters and their equilibration with Santa Margarita Sandstone (T_{SM}) formation minerals as a surrogate for artificial recharge within the Seaside groundwater basin (SGB).

The purpose of this supplemental testing program was to empirically verify and compare the geochemical interactions between PWM waters and T_{SM} minerals under slightly modified pH/Alkalinity conditions to ascertain whether any significant water quality changes would occur. This issue is important because the PWM treatment system can operate within a range of conditions depending upon seasonal and other factors; this supplemental testing used a water quality deemed 'worst case' under the facility's approved Operations Plan to verify the absence of significant adverse water quality issues. Under the Department of Drinking Water (DDW) Operational Plan, treated effluent from the facility can range in alkalinity between 40 and 80 mg/L (as $CaCO_3$), and between 7.5 and 8.5 pH units. The desired water quality outlined in the operational report is a combination of pH and alkalinity resulting in a Langlier index of +0.1, which indicates the water is oversaturated with respect to $CaCO_3$, and is therefore non-corrosive to metallic and lined piping systems. Endmembers of pH and alkalinity resulting in the desired positive Langlier index were calculated as 40 mg/L (as $CaCO_3$) with a pH of 8.5, and 80 mg/L (as $CaCO_3$) with a pH of 7.5. The original January 2019 bench scale testing utilized a PWM water of (nominally) 50 mg/L alkalinity and 8.0 pH, which produced the desired positive Langlier index. This supplemental test was performed with a PWM water of approximately 40 mg/L alkalinity and 7.5 pH at the request of the Watermaster Technical Advisory Committee to test the lower limits of pH and alkalinity in the DDW Operations Plan even though the plan states the target concentrations for alkalinity and pH in product water will result in a non-corrosive combination.

The product water from this second test was artificially modified to have a Langlier Index of approximately -0.1, which would be slightly corrosive to the concrete linings of the transmission pipes, as well as the mineralogy of the T_{SM} aquifer. In the AWTF process



operations, alkalinity (as lime) is added to the water after RO treatment. Because of the high residual CO₂ present in the RO permeate water, the pH is lower than desirable even with the added lime, and to increase pH and attain a positive Langlier Index the water is passed through a decarbonation unit to remove CO₂ via gas stripping. The amount of CO₂ removed can be adjusted by bypassing a percentage of RO permeate around the decarbonating stripper. Because gas stripping is far lower cost than lime addition, it is desirable to minimize lime addition and then achieve final pH adjustment through decarbonation via adjusting the amount of permeate that bypasses the stripper. As noted above, this second test water had a higher-than-normal bypass percentage and thus a lower than normal pH to achieve the negative (-0.1) Langlier Index. (Under normal decarbonation conditions, this water would have had a pH of approximately 8.5 units)

Bench Scale Testing Program

In July 2019, Trussell Technologies obtained a water sample from the PWM Pilot Plant and lime buffered the sample to have an alkalinity of 39 mg/L and a pH of 7.49. The samples were placed into sealed bottles without head space and shipped to McCampbell Laboratories. Prior to performing the bench test, the bottles were opened and allowed to come into equilibrium with dissolved oxygen levels of the atmosphere. This step better simulates PWM operations and best approximates what the product water would be like if it were produced at an alkalinity of 40 mg/L and a pH of 7.5, transferred through a pipeline and held in a storage tank prior to injection.

At this point, the supplemental bench scale testing was performed by McCampbell Analytic Laboratories of Pittsburg, CA, in accordance with procedures outlined in PWR's January 2019 Technical Memorandum and analyte methods jointly developed by PWR and McCampbell. The same procedure was used for the previous testing in January 2019, and the supplemental test program used T_{SM} cuttings samples derived from the original test program materials.

The supplemental testing program was identical to the original bench tests, and generally consisted of mixing the PWM treated water sample with pulverized cuttings samples in a 10:1 mix ratio followed by tumbling of the slurry mix for 48 hours to facilitate maximum solid-liquid contacting and rapid geochemical equilibration between the two phases. After contacting, the solid material and liquids were separated by centrifugation and the liquid supernatant was filtered through a 0.45 micron membrane filter before analysis. The wet centrifuged sludge was dried at 60° C before being analyzed. The results of the supplemental PWM treated water analyses before and after equilibration are presented in Table 1 below, followed by the original bench testing results from our original technical memorandum of April 2019 in Table 2. Analytic laboratory results with all QA/QC and test documentation are included in Appendix A – Laboratory Reports.

Review of Tables 1 & 2 show expected similarities in results which are also supported by previous geochemical assessments; the more typical 465' T_{SM} cuttings with their lower transition metals content are less susceptible to leaching than the 595' cuttings which have a measurable amount of Monterey Shale (T_M) materials present. In addition, the loss of sample weight due to



solubilization after equilibration follows a similar trend to the January test program, with the 595' cuttings showing 50% greater solubilization than the 465' sample.

Table 1 – PWM Treated Water Composition Before and After Tsm Equalization

Nominal 40 mg/L Alkalinity Product Water (LI = -0.1)

(July 2019)

ANALYTE	UNITS	PWM water	465' Cuttings Equilibrated w/ PWM water	595' Cuttings Equilibrated w/ PWM water
Sample weight loss ¹	percent	-	- 2.4	- 3.6
Bicarbonate	mg CaCO ₃ /L	41.1 (39) ²	53.1	67.4
Carbonate	mg CaCO ₃ /L	ND	ND	ND
Hydroxide	mg CaCO ₃ /L	ND	ND	ND
pH	UNITS	8.07 (7.49) ²	9.0	8.3
Phosphorous	mg/L	ND	ND	ND
Cadmium	µg/L	ND	ND	0.49
Calcium	mg/L	9.5	11	140
Copper	µg/L	12	ND	ND
Iron	µg/L	ND	ND	ND
Magnesium	mg/L	0.067	1.7	50
Manganese	µg/L	ND	ND	0.21
Mercury	µg/L	ND	0.08	0.50
Nickel	µg/L	ND	ND	0.55
Selenium	µg/L	ND	ND	1.7
Strontium	µg/L	5.2	60	480
Uranium	µg/L	ND	0.85	6.6
Zinc	µg/L	16	6.0	3.0

1 - Original cuttings sample weights were 50.0 g for the 465' and 595' samples

2 - Parenthetical values were measured by Trussell following lime buffering of the sample and non-parenthetical were measured by McCampbell following opening the samples to atmosphere and prior to bench testing



Table 2- PWM Treated Water Composition Before and After Tsm Equalization
Nominal 50 mg/L Alkalinity Product Water (LI=+0.1)
(January 2019)

ANALYTE	UNITS	PWM water	465' Cuttings Equilibrated w/ PWM water	595' Cuttings Equilibrated w/ PWM water
Sample weight loss ¹	percent	-	- 6.2	- 9.7
Bicarbonate	mg CaCO ₃ /L	54.5 ¹	65.9	122
Carbonate	mg CaCO ₃ /L	ND	ND	ND
Hydroxide	mg CaCO ₃ /L	ND	ND	ND
pH	UNITS	7.96 ¹	7.98	8.11
Total Alkalinity	mg CaCO ₃ /L	54.5	65.9	122
Phosphorous	mg/L	ND	ND	ND
Cadmium	µg/L	ND	ND	ND
Calcium	mg/L	18	15	96
Copper	µg/L	4.5	ND	ND
Iron	µg/L	42	ND	ND
Magnesium	mg/L	0.19	2.5	26
Manganese	µg/L	ND	ND	ND
Mercury	µg/L	ND	ND	ND
Nickel	µg/L	ND	ND	ND
Selenium	µg/L	ND	ND	ND
Strontium	µg/L	8.5	ND	390
Uranium	µg/L	ND	ND	9.2
Zinc	µg/L	ND	ND	ND

¹ – These values were measured by McCampbell prior to beginning the bench test. Values from Trussell were not reported.

The supplemental testing with this second test case lower alkalinity water does, however, show a slight overall increase in transition metal leaching compared to the 50 mg/l water originally tested for both the 465' and 595' cuttings, which is unremarkable due to the overt conditioning of this sample to a slightly negative Langlier Index condition. The 456' sample showed new detections of 4 transition metals (Hg, Sr, U, and Zn), albeit at very low levels near detection limits. The 595' sample showed similar new detections of transition metals that were previously non-detect in the January 2019 test (Hg, Ni, Se, and Zn) in addition to slight increases in Sr and Cd. Although the lower alkalinity did result in increases in these compounds, they were still well below Title 22 drinking water standards. It should also be noted that the 595' cuttings with their Monterey Shale composition component are not representative of the full aquifer formation lithology, but rather represent only 3-5 % of the perforated section of the well; as such, a minor increase in transition metal leaching from this interval may not even be detectable in an aggregate water quality sample.



Conclusions

Based on our evaluation of the water quality with this second bench scale test and our experience with similar artificial recharge project applications, we conclude the following:

- 1- The test program has demonstrated that PWM plant alkalinities as low as 40 mg/l as Ca CO₃ can be utilized with an acceptably low level of mineral solubilization and transition metal leaching. The previous testing at a nominal 50 mg/L resulted in lower levels of mineral solubilization and transition metal leaching; however, facility economics and longer term aquifer testing will provide further information on the optimum facility operating conditions within the operating conditions specified in the DDW permit.
- 2- Neither of the PWM waters used in the January or the July bench tests resulted in significant leaching or ion exchange reactions with the Santa Margarita Sandstone Matrix or the Monterey Shale to the extent that any Primary Drinking Water Standards were exceeded.
- 3- The production of PWM product water that meets the DDW operations plan target values for alkalinity, pH, and Langlier index would require the water to be at or between the end members of 40 mg/l alkalinity at 8.5 pH, and 80 mg/l alkalinity at 7.5 pH, which will necessarily result in maintaining the critical positive ($\geq +0.1$) Langlier Index which will prevent corrosion and/or mineral leaching.
- 4- The second bench test performed on water manufactured at 40 mg/L alkalinity and 7.5 pH was artificially modified to be slightly out of specification to the target Langlier Index in the DDW Operations Plan; however, even under these worst case conditions the level of mineral solubilization and transition metal leaching did not result in any exceedances of CA Title 22 Primary Drinking Water Standards.
- 5- The second bench test did identify that mineral solubilization and transition metal leaching increased slightly under a negative Langlier Index (ie 7.5 pH at 40 mg/l alkalinity) condition, indicating that both stored water quality and the reclaimed water piping systems will benefit from maintenance of the positive Langlier Index product water quality. The typical decarbonated water would have been pH 8.5, which would result in a non-corrosive (positive Langlier Index) condition.
- 6- Economically, product water using a lower lime dose will cost less to produce, suggesting that the 40 mg/l alkalinity water at 8.0 to 8.5 pH will be preferred, while still meeting the pH, alkalinity, and Langlier Index requirements of the DDW operations plan.



Recommendations

Based on the results of the bench testing program and our experience with artificial recharge operations via direct injection into the T_{sm} aquifer system, we provide the following recommendations regarding advancement of the PWM artificial recharge program in the SGB:

- 1- The water quality of treated PWM-treated AWTF water should be maintained to the water quality ranges in the DDW operations report; ie product water alkalinity between 40 and 80 mg/l , pH between 7.5 and 8.5, with a Langlier Index of +0.1 or greater. This Memo summarizes work completed on a worst case product water condition that is more corrosive than the previous memo and should be included with the previous TM - Bench Testing of PWM Waters for Artificial Recharge of the Santa Margarita Sandstone Aquifer System. The recommendations in this TM should be considered with and supersede recommendations made in the previous TM with respect to the lower limit pH, Alkalinity, and Langlier Index provisions.
- 2- Based on this supplemental testing, we opine that the DDW operations plan sufficiently confines AWTP product water quality such that no additional requirements are necessary. The recommendation made in our July 2019 memo should be replaced with recommendation number 1 above in this TM, or all recommendations should be removed from Storage and Recovery Agreement as recommendation 1 is duplicative of requirements of the PWM DDW Operations Plan.

ATTACHMENT 13

STORAGE AND RECOVERY AGREEMENT

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

THIS AGREEMENT is made and entered into on _____, _____, by and between the SEASIDE BASIN WATERMASTER (the "WATERMASTER"), California-American Water Company (the "PRODUCER"), and the Monterey Peninsula Water Management District (the "DISTRICT") as follows:

Recitals

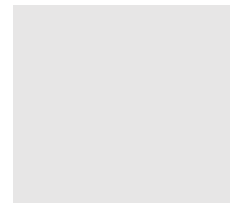
1. The WATERMASTER was created by the Amended Decision of the Monterey County Superior Court, filed February 9, 2007, Case No. M66343 (the "Decision"). This Decision was made for the purposes of managing and protecting the Seaside Groundwater Basin ("Basin") for the benefit of the businesses, individuals, and public agencies that overlie or extract groundwater from the Basin. PRODUCER and DISTRICT are parties to the Decision.
2. In February of 2010, the WATERMASTER, in accordance with Section III.3.L.3.j.xix and III.H.2 of the Decision, allocated 28,784 acre-feet of Storage in the Coastal and Northern Inland Subareas to the PRODUCER. In accordance with Section III.H.3 of the Decision, PRODUCER may use its Storage Allocation for the benefit of its customers and for other purposes as PRODUCER 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." Further, Section III.Q of the Decision states that: (a) DISTRICT can store water for the benefit of DISTRICT in the Basin; and (b) the Decision preserves DISTRICT's statutory right to store water in subterranean reservoirs.
4. The PRODUCER and WATERMASTER have an existing *Agreement for Storage and Recovery of Non-Native Water from the Seaside Groundwater Basin* dated October 21, 2011, which authorizes PRODUCER to store 2,426 acre-feet per year of Non-Native water in, and to subsequently recover that stored water from, the Basin.
5. In accordance with the *Water Purchase Agreement for Pure Water Monterey Project* made by and between PRODUCER, DISTRICT, and MONTEREY ONE WATER ("M1W") (formerly the Monterey Regional Water Pollution Control Agency) dated September 19, 2016 (the "WPA"), incorporated herein by this reference, the DISTRICT will deliver for the benefit of PRODUCER advanced treated recycled water from the Pure Water Monterey project (the "AWT Water") to the Basin for injection, storage, and recovery from the Basin.

- C. Luzern Well #2, 1984 Luzern St., Seaside (Paso Robles)
- D. Playa Well #3, 1237 Playa Ave., Seaside (Paso Robles)
- E. Plumas Well #4, 1453 Plumas Lane, Seaside (Paso Robles)
- F. Santa Margarita ASR-1, 1910 General Jim Moore Blvd, Seaside (Santa Margarita)
- G. Santa Margarita ASR-2, 1910 General Jim Moore Blvd, Seaside (Santa Margarita)
- H. Seaside Middle School ASR-3, 2111 General Jim Moore Blvd, Seaside (Santa Margarita)
- I. Seaside Middle School ASR-4, 2111 General Jim Moore Blvd, Seaside (Santa Margarita)
- J. Fitch Park ASR-5, General Jim Moore Blvd, Seaside (Santa Margarita)
- K. Fitch Park ASR-6, General Jim Moore Blvd, Seaside (Santa Margarita)

5. Recovery Quantity. The PRODUCER is initially authorized to recover (Extract) the full amount of the AWT Water 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 PRODUCER may recover, and the technical basis for this determination will be provided to all PRODUCERS.
6. Water Quality. The DISTRICT hereby certifies that prior to the AWT Water being introduced into the Basin for Storage in accordance with this Agreement, all such water will meet all of the requirements imposed on the DISTRICT or MIW by permits and/or approvals issued to the DISTRICT or MIW by the California Regional Water Quality Control Board and any other water quality standards imposed by any other government entity, including without limitation the California Department of Public Health and the Monterey County Department of Environmental Health.

DISTRICT shall ensure that the water quality characteristics of the AWT Water that will be stored under this Agreement meet the “Water Treatment Guarantee” as defined in the WPA, which definition is incorporated herein by this reference, which characteristics are considered by all parties to this Agreement to not pose a threat of harm to the Basin.

DISTRICT agrees that prior to injecting any AWT Water into the Basin for Storage, it must provide to the WATERMASTER the geochemical interaction modeling assessment (including any recommended mitigation measures) (“Modeling Assessment”) contemplated by the February 10, 2018 Memorandum of Agreement Between the Seaside Basin Watermaster, the Monterey Peninsula Water Management District, California American Water Company, and Monterey One Water to Share in the Costs of Performing Geochemical Modeling of the Seaside Basin Groundwater Basin (see Attachment C). If the Modeling Assessment recommends implementation of mitigation measures to avoid a Material Injury (as defined in the Decision) resulting from the injection of AWT Water into the Basin, DISTRICT must, prior to the initial injection of AWT Water, demonstrate



to the reasonable satisfaction of WATERMASTER that sufficient measures will be implemented to avoid Material Injury.

The Parties expect that desalinated water will not be present/injected into the Basin prior to the initial injection of AWT Water, therefore, in that case, any mitigation measures to be implemented prior to the initial injection of AWT Water shall not include any measures recommended as a result of the presence/injection of desalinated water. Any mitigation measures to be required as a result of the injection of desalinated water into the Basin will be addressed at the time a Storage and Recovery Agreement for desalinated water is presented to the WATERMASTER for consideration.

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

However, in accordance with the Decision in no circumstance may the sum of the PRODUCER's Stored Water Credits and Carryover Credits exceed the PRODUCER'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 that may be Extracted.

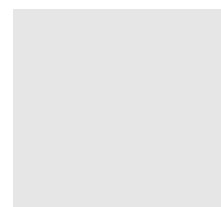
8. Measurement and Reporting of Extractions and Storage. In accordance with Section III.J of the Decision, the DISTRICT shall ensure that adequate measuring devices are installed, maintained, and used on all AWT Water injection facilities, and the PRODUCER shall ensure that adequate measuring devices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

Beginning on the initial delivery of AWT Water to the Basin for Storage in accordance with this Agreement, the DISTRICT shall provide to the WATERMASTER a monthly injection report containing the following data for the preceding month:

- The quantity of AWT Water that was injected by the DISTRICT for delivery to PRODUCER (defined as "Company Water" in the WPA, which definition is incorporated herein by this reference)
- The quantity of AWT Water that was injected by the DISTRICT as Reserve Water
- The location(s) where the water was injected

Beginning on the initial delivery of Company Water by the DISTRICT to the PRODUCER in accordance with the WPA, the PRODUCER shall provide to the WATERMASTER, as part of each monthly Production Report, data for the reporting period stating:

- The quantity of Company Water that was recovered (Extracted)
- The location(s) where the Company Water was recovered (Extracted)



9. Indemnification. The PRODUCER 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 PRODUCER 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.

The DISTRICT 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 DISTRICT 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 PRODUCER and the DISTRICT 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

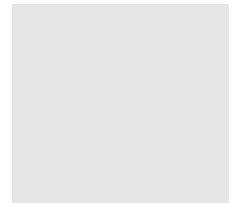
any of the terms and conditions of this Agreement by means of court action or administrative enforcement, the prevailing party/parties, in addition to any other remedy at law or in equity available to such party, shall be awarded from the non-prevailing party/parties all reasonable costs and reasonable 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:

- | | |
|-----------------|---|
| A. WATERMASTER: | Administrative Officer
Seaside Basin Watermaster
P.O. Box 51502
Pacific Grove, CA 93950 |
| B. PRODUCER: | Director of Operations
California American Water
511 Forest Lodge Road, Suite 100
Pacific Grove, CA 93950 |
| C. DISTRICT: | General Manager
Monterey Peninsula Water Management District
5 Harris Court, Building G
Monterey, CA 93940 |

18. Conflicts with the Decision. The Parties believe this Agreement to be consistent with the terms of the Decision and agree that the PRODUCER's and DISTRICT'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 shall be coterminous with the WPA.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement consisting of seven (7) pages and three (3) attachments in triplicate on the date hereinabove written.



WATERMASTER

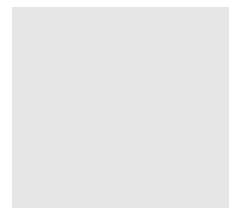
By _____
Paul Bruno
Chairperson

PRODUCER

By _____
Garry Hofer
Vice President, Operations

DISTRICT

By _____
David Stoldt
General Manager



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.

"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.

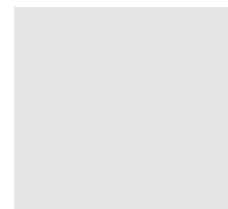
ATTACHMENT B

Delivery Point

AWT Water will be injected by DISTRICT or MIW into the Seaside Groundwater Basin using new injection wells. The proposed new Injection Well Facilities will be located east of General Jim Moore Boulevard, south of Eucalyptus Road in the City of Seaside, including up to eight injection wells (four deep injection wells, four vadose zone wells, in pairs identified as #5, #6, #7, and #8 in the figure below), six monitoring wells, and back-flush facilities.



ATTACHMENT C
MODELING AGREEMENT



MEMORANDUM OF AGREEMENT

**BETWEEN THE SEASIDE BASIN WATERMASTER,
THE MONTEREY PENINSULA WATER MANAGEMENT
DISTRICT,
CALIFORNIA AMERICAN WATER COMPANY,
AND
MONTEREY ONE WATER**

**TO SHARE IN THE COSTS OF PERFORMING GEOCHEMICAL
MODELING
OF THE SEASIDE BASIN GROUNDWATER BASIN**

THIS AGREEMENT is made and entered into this 10th day of February, 2018, by and between the SEASIDE BASIN WATERMASTER, hereinafter referred to as the "WATERMASTER", and the MONTEREY PENINSULA WATER MANAGEMENT DISTRICT, hereinafter referred to as the "DISTRICT", CALIFORNIA AMERICAN WATER COMPANY, hereinafter referred to as "CAWC," and MONTEREY ONE WATER, hereinafter referred to as "MIW," as follows.

In this Agreement the terms "Party" and "Parties" refer to the WATERMASTER, the DISTRICT, CAWC, and/or MIW, either individually or collectively.

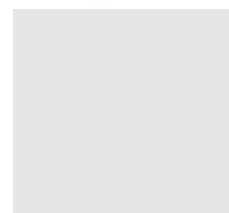
RECITALS:

- A. The WATERMASTER was established for the purposes of administering and enforcing the provisions of the Amended Decision filed February 9, 2007 in Case No. M66343, California Superior Court, Monterey County ("Amended Decision").
- B. Section L.3.j.xxi of the Judgment states in part "The Watermaster will monitor and perform or obtain engineering, hydrogeologic, and scientific studies concerning all characteristics and workings of the Seaside Basin, and all natural and human-induced influences on the Seaside Basin, as they may affect the quantity and quality of Water available for Extraction, that are reasonably required for the purposes of achieving prudent management of the Seaside Basin in accord with the provisions of this Decision."
- C. Section L.3.j.xxiii of the Judgment states in part "The Watermaster will take any action within the Seaside Basin, including, but not limited to, capital expenditures and legal actions, which in the discretion of Watermaster is necessary or desirable to accomplish any of the following:

- Prevent contaminants from entering the Groundwater supplies of the Seaside Basin, which present a significant threat to the Groundwater quality of the Seaside Basin, whether or not the threat is immediate;
 - Remove contaminants from the Groundwater supplies of the Seaside Basin presenting a significant threat to the Groundwater quality of the Seaside Basin;
 - Determine the existence, extent, and location of contaminants in, or which may enter, the Groundwater supplies of the Seaside Basin;
 - Determine Persons responsible for those contaminants; and
 - Perform or obtain engineering, hydrologic, and scientific studies as may be reasonably required for any of the foregoing purposes.
- D. The DISTRICT, CAWC, and MIW intend to submit application(s) to the WATERMASTER for Storage of Non-Native Water in the Seaside Basin ("Application(s)") in accordance with Section III.L.3.j.xx of the Amended Decision, which states in part: "The Watermaster will review applications for Storage in the Seaside Basin, regulate the Storage of Non-Native Water in the Seaside Basin, and issue Storage and Recovery Agreements, all as provided below. All applications for Storage in the Seaside Basin shall be considered and voted on before a noticed meeting of the Watermaster. However, all such applications shall be approved absent the issuance of findings that a Material Injury to the Seaside Basin or Producers will or is likely to occur as a result of the proposed Storage program and no reasonable conditions could be imposed to eliminate such risk. If a Storage application is approved, the Watermaster shall issue a Storage and Recovery Agreement. The Storage and Recovery Agreement may include, among other possible elements and/or provisions, the following conditions to avoid Material Injury: ... (4) the particular Water quality characteristics that are required pursuant to the Storage and Recovery Agreement... and any other terms and conditions deemed necessary to protect the Seaside Basin and those areas affected by the Seaside Basin." "
- E. The DISTRICT, CAWC, and MIW propose to store Non-Native Water from the following sources: (1) ASR water produced by the DISTRICT; (2) desalinated seawater produced by CAWC's Monterey Peninsula Water Supply Project ("Desal Water"), and water produced by MIW's Pure Water Monterey project ("PWM Water"). As part of carrying out its duties and responsibilities under the Amended Decision, the WATERMASTER has requested that the Application(s) include a geochemical interaction modeling assessment investigating the potential for adverse geochemical reactions resulting from the introduction of these waters into the Seaside Basin and, if applicable, identifying measures to avoid such adverse reactions.

Terms and Conditions

In consideration of the mutual promises contained herein, the WATERMASTER, the DISTRICT, CAW, and MIW hereby agree to the following terms and conditions:



A. Work to be performed. The DISTRICT will contract directly with its consultant, Pueblo Water Resources, Inc. ("Consultant"), to perform modeling of the proposed groundwater storage and recovery projects to assess the geochemical interaction effects of introducing the non-native water from these projects into the native water in the Basin ("Work"). The Scope of Work and the estimated costs to perform this work are described in Attachment 1 to this Agreement. The DISTRICT will invite the staff of each of the Parties to this Agreement to attend any key milestone meetings and conference calls that are held between the DISTRICT and its Consultant as the Work is being performed, in order to enable each of the Parties to stay abreast of the work, raise pertinent questions in a timely manner, and provide input as appropriate.

The Parties hereto understand, as stated in Attachment 1, that it is difficult for the Consultant to accurately estimate the costs to perform the Work, and that the costs listed in the Estimated Fee Summary of Attachment 1 are the Consultant's best estimates. In the event it is determined, during the course of the Work, that the cost to complete the Work will be greater than the total cost listed in the Estimated Fee Summary, the Parties agree to meet and confer to reach agreement on a revised cost that will be shared as described in paragraph B below, so that the Work can be completed. Agreement on said revised cost shall not be binding on any Party unless and until that Party formalizes its agreement to the revised cost in writing to each of the other Parties.

B. Costs to be shared. The \$68,679 cost to be shared is contained in the Estimated Fee Summary of Attachment 1. This cost will be shared in the following percentages:

- Watermaster share = 0% (\$0)
- District share = 33 and 1/3% (\$22,893)
- CAWC share = 33 and 1/3% (\$22,893)
- MIW share = 33 and 1/3% (\$22,893)

(In the event a revised cost is agreed to, as described in paragraph A above, these dollar figures will change).

As noted under the heading "Services Not Included" in Attachment 1, certain items are not included in the Consultant's scope of work or estimated costs. These items include:

- Laboratory fees
- Construction of site facilities
- Permit fees
- Cost of water, electricity, or other utilities, and
- Any other items not specifically included in the Consultant's scope of services.

The parties agree that the DISTRICT, CAWC, and MIW will each undertake and pay for these activities for their individual projects.

- C. Documents to be provided.** The DISTRICT will ensure that: (1) After completion of Tasks 1, 2, 3, 4, and 5, as described in Attachment 1, a Technical Memorandum or summary report will be prepared by the Consultant and provided by the DISTRICT to each of the other Parties, and (2) After completion of Task 6 an overall summary report will be prepared by the Consultant and provided by the DISTRICT to each of the other Parties.
- D. Payment of costs and reimbursement to the DISTRICT.** The DISTRICT will make progress payments to the Consultant as it satisfactorily performs the Work. After the satisfactory completion of the work, the DISTRICT will provide to CAWC and MIW copies of the invoices received from and payments made to the Consultant. Within 45 days of receiving those documents, CAWC and MIW will reimburse the DISTRICT for their respective shares of those costs.
- E. Term of Agreement.** The term of this Agreement shall commence on the date of its execution by all Parties, and shall continue in effect until the DISTRICT has been reimbursed as described in paragraph D above.
- F. Hold Harmless.** Under this Agreement the Parties do hereby agree to indemnify, defend, and hold the other Parties, their respective Board members, officers, employees, agents, and representatives harmless from and against any and all liability, claims, suits, actions, damages, and causes of action of any kind arising out of the indemnifying Party's use of the Work in the planning, design, and construction, operation, and maintenance of the indemnifying Party's projects.
- G. Venue.** This Agreement shall be governed by the laws of the state of California. The Parties agree that venue for any litigation arising out of this Agreement shall be exclusively vested in the state courts of the County of Monterey, or the United States District Court for the Northern District of California. Further, the prevailing Party shall be entitled to reasonable attorney fees and costs.
- H. Miscellaneous.** 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. Paragraph headings are for convenience only and shall not be used in interpreting this Agreement. All Attachments to this Agreement are incorporated herein. This Agreement constitutes the entire agreement between the Parties with respect to the subject matter herein and may only be modified in a writing executed by all Parties. Each Party acknowledges that it participated in the drafting of this Agreement and agrees that any ambiguity herein shall not be construed against any Party as the drafter of the Agreement.
- I. Notices.** 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:

- A. WATERMASTER: Technical Program Manager
Seaside Basin Watermaster
P.O. Box 51502
Pacific Grove, CA 93950

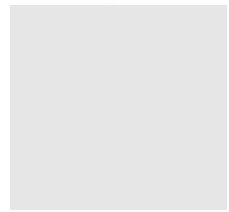
- B. DISTRICT: General Manager
Monterey Peninsula Water Management District
5 Harris Court, Building G
Monterey, CA 93940

- C. CAWC: Operations Manager, Central Division
California American Water
511 Forest Lodge Road, Suite 100
Pacific Grove, CA 93950

- D. MIW: General Manager
Monterey One Water
5 Harris Court, Building D
Monterey, CA 93940

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the dates shown below.

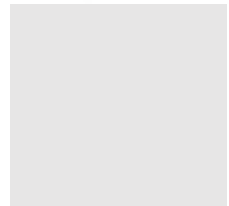
<p style="text-align: center;">WATERMASTER</p> <p>Date: <u>2/10/18</u></p>	<p>By:  Ralph Rubin, Chair, Board of Directors</p>
<p style="text-align: center;">DISTRICT</p> <p>Date: <u>2/12/18</u></p>	<p>By:  David Stoll, General Manager</p>
<p style="text-align: center;">CAWC</p> <p>Date: <u>2/7/18</u></p>	<p>By:  Eric Sabofsky, Director of Operations</p>



MIW
Date: 2-14-18

By: Paul C. Scott
Paul Scott, General Manager

-



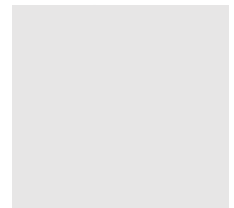
ATTACHMENT 1

Scope of Work and Cost

to

Perform Modeling

**of Proposed Groundwater Recharge Projects to Assess the Geochemical
Interaction Effects of Introducing Non-native Water from Those
Projects into the Native Water in the Basin**





November 17, 2017
Project No. 12-0048

Monterey Peninsula Water Management District
5 Harris Court, Building G
Monterey, California 93942

Attention: Mr. Jonathan Lear, Senior Hydrogeologist

Subject: Proposal for Seaside Groundwater Basin Geochemical Interaction Evaluation

Dear Mr. Lear:

In accordance with your request, Pueblo Water Resources, Inc. (PWR) is pleased to submit this proposal to provide a geochemical interaction evaluation of various managed aquifer recharge (MAR) projects currently planned to be implemented in the Seaside Groundwater Basin (SGB). Presented in this proposal is a detailed scope of work, estimated costs, and schedule to provide the requested services.

PURPOSE AND SCOPE

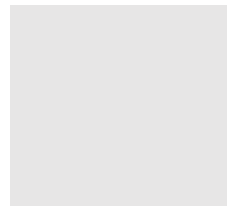
The purpose of the proposed work is to perform an initial geochemical interaction modeling assessment of various active and proposed MAR projects in the SGB. The only currently active MAR project is the Monterey Peninsula ASR Project, which injects treated excess Carmel River System water into 4 existing ASR wells (ASR-1 through ASR-4). Proposed MAR projects include the Pure Water Monterey and Monterey Peninsula Water Supply Project (MPWSP), which would inject advanced treated recycled water and desalinated seawater, respectively, into future injection wells in the SGB. The proposed activities and programs related to MAR in the SGB will ultimately result in the mixing and interaction of the following 4 waters:

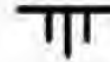
- Santa Margarita Sandstone aquifer native groundwater
- Treated and disinfected Carmel River System water
- Treated water from the Pure Water Monterey project
- Desalinated seawater from the MPWSP

All of these waters will mix together in various proportions at various times within the geologic matrix of the Santa Margarita Sandstone aquifer (Tsm) within the SGB. The intermixing of these 4 waters and their individual and combined reactions with the minerals in the Tsm formation will result in a variety of geochemical reactions – these reactions may be beneficial (e.g., stabilization of water quality and reduction in corrosivity) or potentially problematic (e.g., precipitation of cementitious scales or evolution of gasses) – and would alter the quality of the

PUEBLO WATER RESOURCES, INC.

4478 Market Street, Suite 705 • Ventura, CA 93003 • 805.644.0470





water recovered from the ASR wells and California American Water's (CAW) other municipal production wells in the SGB.

It is therefore prudent to investigate these geochemical reactions and to identify the potential for adverse reactions; and if present, to identify measures to avoid such adverse conditions. The investigation proposed herein will address these issues through a stepwise approach as discussed below.

Scope of Services

The above scenarios can be analyzed through utilization of geochemical simulations from various interaction models and chemical equilibrium databases. A geochemical interaction model has been developed by PWR in recent years to address the interaction of the Tsm mineralogy with Carmel River System waters and Native Tsm groundwater to address these same issues, and will be expanded to cover the more complex interactions of the 4 proposed project waters. PWR's existing geochemical model is based on the USGS geochemical interaction software PHREEQC-2, version 2.15.2697 combined with the robust Lawrence Livermore National Laboratory (LLNL) geochemical equilibrium database.

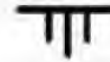
Implementation of the investigation will include the following tasks, which are structured to allow assessment of results at each step and provide the opportunity to modify the investigation or drop specific lines of analysis due to either fatal flaws or findings of no potential significance. A brief overview of the proposed scope of work by task is presented below:

Task 1 – Water Chemistry Data Compilation

Characterize the complete composition and character of the 4 water sources via laboratory and field analyses, or in the case of waters that do not currently exist (ie MPWSP desal plant water and Pure Water Monterey project effluent) quantitative process modeling estimations of water quality parameters (note that these process modeling estimations are not part of our services and would be provided by the project proponent's engineers). The initial step in this effort will be the preparation of a list of water chemistry parameters necessary for geochemical interaction modeling and a request for data for the injection source waters from the Pure Water Monterey and MPWSP project sponsors (MRWPCA and CAW, respectively). Data gaps will be identified and a Sampling and Analysis Plan (SAP) will be developed to fill any data gaps.

Task Deliverable: A Technical Memorandum (TM) summarizing the available water quality data for each of the project sources, and a SAP to fill-in missing data. *Note that no costs for collection of field or laboratory data are budgeted in this task. If additional sampling is necessary, such costs are assumed to be the responsibility of the respective source water generators or project proponents.*

Task Duration: 4 weeks



Task 2 – Aquifer Mineralogy Data Compilation

Characterize the mineral composition of the Tsm aquifer via empirical laboratory analysis of well cuttings and/or core samples. These data already exist for two of the ASR project wells (ASR-2 and ASR-3) that characterize the Tsm aquifer mineralogy at the two ASR facilities (Santa Margarita and Seaside Middle School, respectively); however, similar data will be needed for the Pure Water Monterey and MPWSP well facilities, and will need to be coordinated with the construction of the new wells for these projects. In addition, the older/existing mineralogical data may be incomplete for purposes of this new modeling effort. To maximize the quality and quantity of data available for this work, detailed protocols for sample collection and analytical testing will be provided.

Task Deliverable: A TM summarizing the mineral characterization of the Tsm, and protocol for the sample collection and analysis of upcoming Tsm mineralogy samples. *Note that no costs for field or laboratory analyses are budgeted for this task, but are reportedly included in the current budgets for the construction of the monitoring well for the Pure Water Monterey project in May 2018.*

Task Duration: 2 weeks

Task 3 – Geochemical Model Development

Develop a geochemical interaction model based on the data derived from Tasks 1 and 2 above, combined with the geochemical equilibrium databases discussed previously.

To complete this work, the existing model will be upgraded and expanded, including the addition of the most recent French Geological Survey (BRGM) Thermoddem V1.1 database and the Swiss (ETH Zurich) CHEMDATA17 database. The upgrades will allow further analysis of water quality stabilization, more accurate identification of sulfate/carbonate/siliceous scaling, and assessment of corrosivity issues in recovered waters.

Task Deliverable: A summary of model base and primary settings will be provided if requested.

Task Duration: 3 weeks

Task 4 – Model Mixing Ratios

Upon completion of Task 3, PWR will model a number of mixing ratios of the four water types. For the purpose of planning, there will be 21 mixtures of various percentage mixtures of the four water types; **Table 1** outlines the mixing ratios that will initially be modeled. The matrix of water mixtures presented in **Table 1** were chosen through discussions with MPWMD staff to bracket the potential extreme case mixing scenarios that might occur during program operations; this methodology should identify potential problem areas to avoid early in the investigation, which will allow additional efforts to analyze these scenarios if warranted.

PWR will analyze the geochemical stability of each of the individual waters, and perform the modeling of the proposed intermixing scenarios described above. The results of the



modeling will be analyzed and interpreted with specific attention to potentially adverse geochemical interactions such as mineral scale formation, gas evolution, and leaching/mobilization of deleterious compounds within the Tsm formation.

Task Deliverable: A TM summarizing the results of the geochemical interaction modeling, and recommendations for additional model scenarios based on the initial output runs.

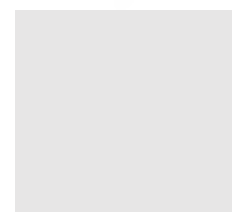
Task Duration: 6 weeks

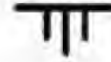
Table 1. Summary of Mix Ratios for Geochemical Modeling

Mix No.	% Native Tsm Water	% Treated Carmel River Water	% Reclaimed PWM Water	% Desal Water
1	100	0	0	0
2	0	100	0	0
3	0	0	100	0
4	0	0	0	100
5	66	33	0	0
6	66	0	33	0
7	66	0	0	33
8	33	66	0	0
9	0	66	33	0
10	0	66	0	33
11	33	0	66	0
12	0	33	66	0
13	0	0	66	33
14	33	0	0	66
15	0	33	0	66
16	0	0	33	66
17	55	15	15	15
18	15	55	15	15
19	15	15	55	15
20	15	15	15	55
21	25	25	25	25

Task 5 – (Optional Task) Additional Focused Analysis

Based on the results of Task 4 above, PWR will identify those mixture simulations that show undesirable geochemical reactions (ie mineral precipitation or gas evolution) and will re-run those model simulations under various modifications of mix ratios and/or aquifer conditions





to identify methods of mitigating the observed adverse reactions and to identify potential operational scenarios which would prevent such adverse geochemical reactions from occurring.

Task Deliverable: A TM summarizing the results of the supplemental modeling and recommendations for project design and/or operational changes associated with enhancing recovered water quality or avoiding adverse geochemical reactions.

Task Duration: 4-6 weeks

Task 6 – Reporting

Upon the conclusion of tasks 1-5, PWR will develop an overall summary report and recommendations for process and/or operational changes for each project to reduce or avoid adverse geochemical reactions. PWR will also participate in two technical workshops with project stakeholders to discuss the impacts to the various regional projects, and participate in one presentation to the Watermaster Board to address questions and present findings.

Task Duration: 4 weeks

Task 7 – Project Management and Meetings

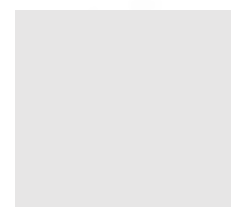
Provide routine project management, including invoicing, schedule management, project coordination and communication. This will include one intermediate and one final presentation of the evaluation findings and recommendations to the SGB Water Master Technical Advisory Committee (TAC).

Task Duration: Ongoing

Services Not Included

It should be noted that completion of this project will require services which are not included in our proposal; the costs for these items are presumed to be paid for by the project proponents under the provisions of the Storage Agreement. These items include (but are not limited to) the following:

- Laboratory fees;
- Construction of site facilities;
- Permit fees;
- Cost of water, electricity, or other utilities;
- Any other items not specifically included in PWR's scope of services.





ESTIMATED FEES AND SCHEDULE

Based on the scope of services presented herein, we estimate the fees for our services will be approximately \$57,365, which will be billed on a time-plus-expenses basis in accordance with our current Fee Schedule (attached). An estimated fee summary worksheet is attached summarizing the estimated man-hours and costs per task/work item. The spreadsheet also identifies the cost total including Optional Task 5, as well as a 10 percent contingency which has been noted in the attached budget summary in the event that unforeseen project complications or constraints arise (total with optional task and 10% contingency is \$69,679). We recommend the contingency be held for authorization by District staff upon written justification by PWR.

We understand that in order to authorize this work, your Board must first approve a formal contract amendment. Based on our current workload, we believe that we can commence work within two weeks of your authorization and that the work will be completed within approximately 4 months.

We appreciate the opportunity to provide ongoing assistance to the District on this important community water-supply project. If you require additional information regarding this or other matters, please contact me.

Sincerely,

PUEBLO WATER RESOURCES, INC.

Stephen P. Tanner, P.E.
Principal Engineer

SPT:rom

Attachments: Cost Estimation Spreadsheet
2018 Fee Schedule



PUEBLO WATER RESOURCES, INC
2018 FEE SCHEDULE

Professional Services

Principal Professional.....	\$205/hr
Senior Professional.....	\$190/hr
Project Professional.....	\$175/hr
Staff Professional.....	\$145/hr
Technician.....	\$135/hr
Illustrator.....	\$120/hr
Word Processing.....	\$100/hr

Other Direct Charges

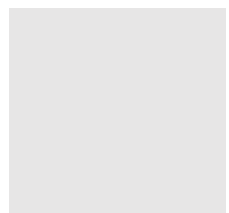
Subcontracted Services.....	Cost Plus 15%
Outside Reproduction.....	Cost Plus 15%
Travel Expenses.....	Cost Plus 15%
Per Diem*.....	\$150/day
Vehicle	\$75/day

Equipment Charges

Drilling Fluid Test Kit.....	\$100/day, \$400/week
Field Water Quality Meter (Hach DR890).....	\$75/day, \$275/week
Orion ORP/pH/Temp Probe.....	\$75/day, \$275/week
Water Level Probes (In-Situ Mini-Troll/Level Troll).....	\$100/day, \$300/week
Fuji Ultrasonic Flowmeter.....	\$200/day, \$750/week

*Regionally and seasonally specific to project.

PUEBLO WATER RESOURCES, INC • 4478 Market Street, Suite 705 • Ventura, CA 93003
805.644.0470 • 805.644.0480 FAX



ATTACHMENT 14

**CYPRESS PACIFIC INVESTORS FRONT-LOADING DELIVERY
OF WATER AGREEMENT**

**AGREEMENT REGARDING
FRONT-LOADING DELIVERY OF WATER**

This Agreement Regarding Front-Loading Delivery of Water (“**Agreement**”) made by and between Cypress Pacific Investors LLC, a California limited liability company, successor to Muriel E. Calabrese 1987 Trust (“**Cypress**”) and California-American Water Company, a California corporation (“**CAWC**”), hereinafter individually a “**Party**,” and collectively, the “**Parties**,” is entered into with respect to the following:

WHEREAS, CAWC, a public utility regulated by the California Public Utilities Commission (“**CPUC**”), owns and operates wells and infrastructure and a water distribution system which serves properties located within the Seaside Basin and generally on the Monterey Peninsula;

WHEREAS, Cypress is the owner and developer of property within the CAWC water service area;

WHEREAS, the Amended Decision governing the Seaside Basin Adjudication matter in the case of *California American Water v. City of Seaside, et al.* (Monterey County Superior Court, Case No. M66343) filed on February 9, 2007 (“**Amended Decision**”) established that Cypress has the right and title to produce and use a percentage of the Operating Safe Yield and Natural Safe Yield of Seaside Basin water as described more fully in the Amended Decision;

WHEREAS, Cypress intends to split its 14 acre-foot per year (“**AFY**”) Alternative Production Allocation designated in the Amended Decision into two components: (a) an 8.0 AFY Standard Production allocation which is subject to reduction per the formulas in the Amended Decision; and (b) 6.0 AFY that will remain as an Alternative Production Allocation for onsite use on Assessor’s Parcel Number 011-011-020;

WHEREAS, Cypress anticipates that it will file an application or applications with the appropriate local jurisdiction or jurisdictions for the necessary permits, approvals, and entitlements to develop such real property owned or controlled by Cypress, by a company affiliated with Cypress, and/or by any other persons or entities designated by Cypress, and located at one or more addresses and on one or more assessor’s parcel numbers within CAWC’s Seaside Basin water service area, as Cypress may designate from time to time (individually a “**Cypress Property**” or collectively “**Cypress Properties**”). Said permits, approvals, and entitlements are hereinafter referred to as the “**Permits**”;

WHEREAS, CAWC and Cypress intend to file one or more co-applications with the Monterey Peninsula Water Management District (“**WMD**”) requesting one or more amendments to the CAWC water distribution system permit as and if required to account for the lease by Cypress of up to eight (8) AFY of Cypress’s Court-adjudicated entitlement to Seaside Basin water to CAWC 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 of the Cypress Properties; and

WHEREAS, the Parties enter into this Agreement: (1) to make clear that they intend to comply with the terms of the Amended Decision, as clarified by the Monterey Court in its ruling on April 29, 2009, subsequent order filed on May 11, 2009, in Monterey County Superior Court, case number M66343, and any subsequent order of the court in said case; (2) to ensure operationally that only Seaside Basin water is produced and stored for the benefit of the Cypress Properties in advance of the Cypress demand for such water at any Cypress Property, and (3) to provide assurance (in addition to accounting and reporting requirements) that there will be no temporal or other impact on waters produced or stored from other sources, including, without limitation, the Carmel River.

NOW THEREFORE, the Parties agree as follows:

1. Leased Water/Commencement of Lease. Cypress agrees to lease up to a maximum of eight (8) AFY of its allocated water production under the Amended Decision to CAWC at no charge (“Lease” or “Leased Water”) for delivery to and use on one or more Cypress Properties. The Lease shall commence upon the occurrence of all of the following events: i) upon issuance of the Permits and satisfaction of the conditions of approval for the first Cypress Property to be served pursuant to this Agreement; ii) satisfaction of the conditions set forth in Section 6 of this Agreement; and iii) issuance of a water permit by the WMD for the new or increased uses on the Cypress Property pursuant to the Permits. CAWC agrees the Leased Water may only be used to serve the Cypress Properties in accordance with the terms and conditions of this Agreement.

2. Commencement and Terms of Service. With respect to each Cypress Property to be served with Leased Water pursuant to this Agreement, Cypress shall provide CAWC with written notice, sufficiently in advance to enable CAWC to produce water in accordance with Section 3, specifying: i) the address/location and owner of the Cypress Property; ii) the expected date for the meter to be set (if applicable); iii) as applicable, the expected date for initiation of water service by CAWC or increased water use by the Cypress Property; and iv) the amount of Leased Water to be provided (if the Cypress Property is already being served by CAWC with Carmel River water, the amount of Leased Water shall be exclusive of any baseline for past water use on said Cypress Property as recognized and documented by an appropriate methodology acceptable to the WMD and the State Water Resources Control Board (“SWRCB”), currently the lesser of either the actual average metered annual water use for a water year from the last five years of records or the amount calculated from the fixture unit count). CAWC shall have no obligation to serve any Cypress Property under this Agreement until it receives such notice. Service to any Cypress Property pursuant to this Agreement shall be subject to all of CAWC’s tariffs as authorized by the CPUC, including the conditions of and the rates charged for service.

3. Production of Leased Water. CAWC agrees to initially produce the Leased Water for each Cypress Property from its inland Seaside Wells at least 30 calendar days prior to either: i) the setting of a meter for the Cypress Property; or ii) if the Cypress Property to be served already has a meter, commencement of any increased use on said Cypress Property. CAWC will store the amount of Leased Water so produced in a CAWC storage facility deemed appropriate by CAWC. Thereafter, CAWC shall, as frequently as necessary, produce the Leased Water in an

amount that exceeds the amount of water actually delivered to the Cypress Properties pursuant to this Agreement.

4. Interpretation. The Parties intend that any production, export, delivery, or use of water pursuant to this Agreement shall be in accordance and consistent with the Amended Decision and that nothing in this Agreement shall be construed to require either Party to violate the terms of the Amended Decision. Further, nothing in this Agreement shall be construed to prohibit the “mixing of molecules” from different sources or supplies of water, which is a practice recognized and allowed by California law and by the Amended Decision, as clarified by the Monterey Court on April 29, 2009, and memorialized in the court’s May 11, 2009, Order.

5. Accounting and Reporting. CAWC will account for and report the production of the Leased Water in accordance with Section 11 of the *Rules and Regulations of the Seaside Groundwater Basin Watermaster* as it may be amended from time to time. Cypress understands and agrees, and will so instruct the Watermaster, that under no circumstances shall production by CAWC of the Leased Water for use on any Cypress Property served pursuant to this Agreement be deducted from CAWC’s production rights under the Amended Decision.

6. Conditions Precedent. The application of this Agreement to any Cypress Property shall be conditional on all of the following:

- a. Approval of a moratorium exception by the CPUC or the written approval of an authorized official of the SWRCB, as required to allow CAWC to produce and deliver Leased Water to the Cypress Properties pursuant to this Agreement;
- b. Compliance with Section 9.0 of the *Rules and Regulations of the Seaside Groundwater Basin Watermaster* as it may be amended from time to time with respect to the assignment or transfer to CAWC of a portion of Cypress’s production allocation for purposes of this Agreement, and with Section III.B.3.e of the Amended Decision relating to changing a production allocation;
- c. Approval of any amendment or amendments to the CAWC water distribution system permit by the WMD (or, alternatively, issuance of said permit or authorization granted by order of an applicable court) necessary to allow CAWC to produce and deliver Leased Water to such Cypress Property;
- d. Acceptance and approval by CAWC of any conditions restricting or regulating CAWC water systems operations imposed by the WMD on its approval and/or issuance of any amended CAWC water distribution system permit or other permit necessary to allow service to such Cypress Property, which acceptance and approval by CAWC shall not be unreasonably withheld; and
- e. The provision of Leased Water to such Cypress Property will not cause the total deliveries of Leased Water to all Cypress Properties under this Agreement to exceed eight (8) AFY as defined in the Amended Decision.

In the event any of the foregoing conditions is not satisfied with respect to any particular Cypress Property, the failure of such condition or conditions shall not affect the validity or enforceability of this Agreement with respect to any other Cypress Property.

7. Cooperation. Cypress and CAWC mutually agree to provide such notification and cooperation to one another as may be necessary to achieve the purposes and implementation of this Agreement. The Parties shall provide further assurances in writing or other documentation as necessary in order to achieve the purposes and implementation of this Agreement.

8. Termination. This Agreement may be terminated upon mutual written agreement of the Parties. Further, CAWC may terminate this Agreement as to Cypress Properties proposed to be served hereunder that have not received all necessary Permits prior to the date of termination if ordered to do so by the CPUC.

9. Cost Allocation. Costs to implement this Agreement will be paid as follows:

a. Except as provided in Section 10 below, CAWC will pay all costs to request and obtain any CPUC or SWRCB approval for an exception to the CPUC moratorium to allow CAWC to produce and deliver Leased Water to the Cypress Properties, including but not limited to preparation of any required Advice Letter and supporting documentation.

b. Cypress will pay any application fees and all other fees and costs charged by the WMD related to the application to the WMD for any amendment or amendments to the CAWC water distribution system permit necessary to allow CAWC to provide Leased Water to the Cypress Properties, including but not limited to consultant fees and any fees and costs related to compliance with the California Environmental Quality Act.

c. Notwithstanding any other provision of this Agreement, and except as provided in Section 10 below, each Party shall be responsible for its own legal costs and attorney's fees associated with performance of the Agreement, including but not limited to all costs and fees related to drafting, review, and editing of applications, preparation and submittal of any application to the CPUC for a moratorium exception, preparation and submittal of any application to the WMD for any amendment or amendments to the CAWC water distribution system permit, monitoring of the CPUC and WMD processes for review and approval of the moratorium exception and amendment of the CAWC water distribution system permit, and compliance with any and all CPUC and WMD requirements.

d. Notwithstanding any other provision of this Agreement, and except as provided in Section 10 below, neither Cypress nor CAWC shall be responsible for paying costs associated with any time expended on the performance or implementation of this Agreement by any officer, director, manager, attorney, representative, agent, or employee of the other Party.

10. Indemnification.

a. Cypress agrees that, to the fullest extent permitted by law, CAWC shall be fully protected from any loss, injury, damage, claim, lawsuit, cost, expense, attorney's fees, litigation costs, defense costs, court costs, or any other cost arising out of or in any way related to an

Indemnified Claim as defined in Section 10(b), below. Accordingly, the provisions of this Section 10 are intended by the Parties to be interpreted and construed to provide the fullest protection possible under the law to CAWC with respect to such Indemnified Claims. Cypress acknowledges that CAWC would not enter into this Agreement in the absence of this commitment from Cypress to indemnify, defend, and hold harmless CAWC as set forth herein.

b. To the fullest extent permitted by law, Cypress shall defend, indemnify and hold harmless CAWC and its directors, officers, employees and agents (individually an “**Indemnified Party**” and collectively “**Indemnified Parties**”) from any claim, action, or proceeding to attack, challenge, set aside, void, or annul: (i) the entering into, making, or performance of this Agreement; or (ii) any governmental or regulatory approval related to implementation or performance of this Agreement (individually an “**Indemnified Claim**” and collectively “**Indemnified Claims**”). Cypress’s obligation to indemnify applies regardless of whether a liability is caused or contributed to by any act or omission of an Indemnified Party unless it is finally adjudicated that the liability is a result of the sole active negligence or sole willful misconduct of an Indemnified Party. The indemnification includes any damages, fees and/or costs awarded against an Indemnified Party, and costs of suit, attorney’s fees, and other costs, liabilities and expenses incurred by an Indemnified Party in connection with an Indemnified Claim, including any costs incurred as a result of an indemnification obligation imposed by a governmental or regulatory entity as part of an approval process.

c. Cypress’s duty to defend is a separate and distinct obligation from its duty to indemnify and shall arise immediately upon submittal to Cypress of notice of an Indemnified Claim in any form or at any stage of the Indemnified Claim, whether or not liability is established. CAWC shall have the right to approve defense counsel, all significant decisions concerning the manner in which the defense is conducted, and any and all settlements, which approvals shall not be unreasonably withheld. The obligation to defend extends through final judgment, including exhaustion of any appeals; or, alternatively, through final settlement of the claim. If it is finally adjudicated that liability was caused by the sole active negligence or sole willful misconduct of one of the Indemnified Parties, Cypress may submit a claim to CAWC for reimbursement of reasonable attorney’s fees and defense costs which claim shall be paid by CAWC within 90 days from submittal. CAWC shall also have the right, at any stage of the Indemnified Claim and at its own election, to conduct its own defense. This Section survives the completion or termination of this Agreement.

d. Notwithstanding any other provision of this Agreement, in the event any Indemnified Claim is threatened or asserted so as to give rise to Cypress’s indemnification obligation under this Section 10, Cypress shall have the unilateral right at any time, with or without CAWC’s consent, to agree to rescind or vacate any governmental or regulatory approval by any public agency that is necessary in order for CAWC to commence producing and delivering Leased Water to a Cypress Property pursuant to this Agreement, including but not limited to any amendment to the CAWC water distribution system permit by the WMD, provided that such rescission or vacation does not materially increase or adversely affect CAWC’s obligations or operations. For example, Cypress shall not have the unilateral right to rescind or vacate any such approval if CAWC has lawfully commenced producing and delivering Leased Water to the implicated Cypress Property. Prior to agreeing to rescind or vacate any such approval, Cypress shall provide CAWC with written notice of its intent to rescind or vacate the

approval and the Parties shall meet and confer on whether a material increase in or adverse effect on CAWC's obligations or operations would result from the proposed rescission or vacation.

11. Assignment. Cypress may not assign its rights or delegate its obligations hereunder without the prior written consent of CAWC, which may be given or withheld in CAWC's sole and absolute discretion. Notwithstanding the foregoing, Cypress shall have the unilateral right to designate the Cypress Properties to receive Leased Water under this Agreement without the consent of CAWC, notwithstanding the fact that neither Cypress nor its affiliate companies may be the record owner of such Cypress Property.

12. Notices. Any notice, consent, approval or disapproval to be given or other document to be delivered by any Party to the other or others hereunder may be delivered in person to the addressee identified below, or may be delivered by Federal Express, other private commercial delivery or courier service for next business day delivery, or may be deposited in the United States mail, duly certified or registered, return receipt requested, with postage prepaid, and addressed to the Party for whom intended, as follows:

If to CAWC:	Eric Sabolsice General Manager 511 Forest Lodge Road, Suite 100 Pacific Grove, CA 93950 Email: Eric.Sabolsice@amwater.com
If to Cypress:	Peter Taormina, Managing Member C/O MPE Box 400 Marina, CA 93933 Email: peter@mpe2000.com
With a copy to:	Anthony Lombardo Anthony Lombardo & Associates 450 Lincoln Ave., Suite 101 Salinas, CA 93901 Email: tony@alombardolaw.com

Notice may also be given by electronic mail ("Email") to any Party at the respective Email address given above provided receipt of such transmission shall be confirmed by follow-up notice within 72 hours by another method authorized above. Any Party hereto may from time-to-time, by written notice to the other, designate a different address or person which shall be substituted for the one above specified. Any notice shall be deemed served or delivered upon actual receipt or first attempted delivery (as shown by the records of the U.S. Postal Service or private delivery service) at the address listed above.

13. Amendment. This Agreement may only be amended by a document in writing signed by

the Parties hereto.

14. Authority. The persons executing this Agreement on behalf of the Parties hereto warrant that: (i) such Party is duly organized and existing; (ii) they are duly authorized to execute and deliver this Agreement on behalf of said Party; and (iii) by so executing this Agreement such Party is formally bound to the provisions of this Agreement.

15. Governing Law; Disputes.

- a. The Agreement shall be interpreted in accordance with California law, without giving effect to choice of law provisions. Headings used in this Agreement are for convenience only and are not to be used in the construction or interpretation of this Agreement.
- b. The Parties agree that in the event of litigation, exclusive venue shall be in Monterey County, California.
- c. In the event of any legal action or other proceeding between the Parties regarding this Agreement (an "Action"), the prevailing Party shall be entitled to the payment by the losing Party of the prevailing Party's reasonable attorney's fees, court costs and litigation expenses, as determined by the court.
- d. Likewise, the prevailing Party in any Action shall be entitled, in addition to the amounts set forth in Section 15(c) above, to the payment by the losing Party of the prevailing Party's reasonable attorney's fees, court costs and litigation expenses incurred in connection with: (i) any appellate review of the judgment rendered in the Action; and (ii) any proceeding to enforce a judgment in such Action. It is the intent of the Parties that the provisions of this Section 15(d) shall be distinct and severable from the other rights of the Parties, shall survive the entry of judgment and shall not be merged into such judgment.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

16. No Third Party Beneficiaries. This Agreement is made and entered into solely for the benefit of Cypress and CAWC and no other person shall have any right of action under or by reason of this Agreement.

**CALIFORNIA-AMERICAN WATER
COMPANY**

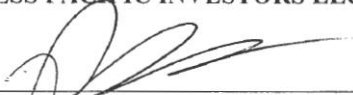
Dated: 12/1/14

By: 

Eric Sabolsice, General Manager
Print Name and Title

CYPRESS PACIFIC INVESTORS LLC

Dated: 11/4/14

By: 

Peter Tadama, member
Print Name and Title

MONTEREY PENINSULA

MANAGEMENT DISTRICT

FINAL

**CONDITIONS OF APPROVAL for
APPLICATION TO AMEND CALIFORNIA AMERICAN
WATER DISTRIBUTION SYSTEM – TRANSFER OF CYPRESS
PACIFIC WATER RIGHTS IN SEASIDE BASIN**

**Donor Parcel: APN 011-011-020, 715 Tioga Avenue, Sand City
Service area: Unspecified Parcels in Seaside Groundwater Basin
Application #20140206CYP, Permit #M14-05-L4**

**Permittee: California-American Water Company, a California Corporation
Permitted System: California American Water, “CAW/Cypress Amendment”
Donor Parcel Owner: Cypress Pacific Investors, LLC, a California Limited
Liability Company**

**Adopted by MPWMD Board on September 15, 2014 Pursuant to Rule 22-D
Preparation Date: October 13, 2014**

Permitted System (Required by MPWMD Rules)

1. The California American Water (CAW) Water Distribution System (Permitted System) is authorized by the Monterey Peninsula Water Management District (MPWMD or District) under Permit #M14-05-L4 to receive a portion of the water rights associated with the Parcel at 715 Tioga Avenue, Sand City, identified as Assessor's Parcel Number (APN) 011-011-020 (“Donor Parcel”), owned by Cypress Pacific Investors, LLC, a California limited liability company (Cypress). This action is referred to herein as the “CAW/Cypress Amendment.” A total of 14.0 Acre-Feet per year (AFY) of “Alternative Production Allocation” rights were specified for the Donor Parcel by the Seaside Basin Adjudication Judgment of March 27, 2006, Monterey County Superior Court Case #M66343, as amended (“Adjudication Decision”). The CAW/Cypress Amendment entails transfer of up to 8.0 AFY to CAW as “Standard Production Allocation” rights (to be reduced pursuant to the formulas specified in the Adjudication Decision) as allowed by the Seaside Basin Watermaster. Specifically, the 8.0 AFY initial production is reduced to 3.41 AFY production to be used for future water service to unspecified recipient properties to be designated by Cypress (“Recipient Parcels”). An Alternative Production Allocation of 6.0 AFY remains for use on the Donor Parcel [Rule 22-D-1-a]

FINAL – CAW/Cypress Amendment Conditions of Approval
Adopted by MPWMD Board on September 15, 2014
Page 1 of 6

Attachment to Deed Restriction, page 2 of 19

2. The Permittee is authorized by MPWMD under this Permit to provide Potable water service to the Recipient Parcels, which must be located in the Seaside Groundwater Basin, as defined in MPWMD Rule 11. [Rule 22-D-1-b]
3. The CAW System Capacity (“production limit”) for allowed extractions from the Seaside Basin Coastal Subareas shall be increased by **up to 3.41 AFY** over the quantity specified in the Adjudication Decision in order to serve the Recipient Parcels. An Expansion Capacity Limit (Connections) is not set. For the purposes of Water Permits issued by MPWMD for development projects on the Recipient Parcels, a combined estimate of **3.17 AFY CAW metered sales (customer consumption) shall be used**, based on a system loss factor of seven percent (7%). The District shall separately track Permit issuance associated with the 3.17 AFY CAW/Cypress Amendment. For the purpose of MPWMD’s Expanded Water Conservation and Standby Rationing Program, up to 3.41 AFY will be added to CAW’s recognized production allotment in the Coastal Subareas, based on the Donor Parcel Owner’s adjudicated water rights specified in the Adjudication Decision referenced above, so long as CAW and the Donor Parcel Owner have a valid agreement for CAW’s use of water rights associated with the Donor Parcel. [Rule 22-D-1]
4. The source of water for the CAW/Cypress Amendment is solely Groundwater extracted by CAW Wells in the Coastal Subareas of Seaside Groundwater Basin. Water for the Recipient Parcels shall be delivered through CAW’s Water Distribution System (WDS). [Rule 22-C-3]

Additional Mandatory Conditions of Approval (Required by MPWMD Rules)

5. Precedent to use of this Permit, Permittee shall also first obtain and comply with any required approval from the local Jurisdiction in which the Recipient Parcels are located. The Seaside Basin Watermaster confirmed on January 27, 2014 that CAW may deliver water to the Recipient Parcels using a portion of the 14.0 Alternative Production Allocation water rights held by the Donor Parcel Owner (Cypress). The State Water Resources Control Board, Division of Water Rights, confirmed on February 5, 2009 that the one-for-one replacement requirement in Order WR 95-10 does not apply to this type of transfer so long as CAW water supply for the project is derived from the Seaside Basin and not the Carmel River Basin. [Rule 22-D-1-c; Rule 22-D-3]
6. Permittee and Donor Parcel Owner (Cypress) shall execute an Indemnification Agreement, provided separately, which holds the District harmless and promises to defend the District from any claims, demands, or expenses of any nature or kind arising from or in any way related to the District approval of the Permitted System or the adequacy of the system water supply. This Permit is not valid until the Indemnification Agreement is signed by the Permittee, Donor Parcel Owner and MPWMD. The Indemnification Agreement must be signed within 60 days of the preparation date shown (see top of page 1) for this Permit to remain valid. [Rule 22-D-1-d]

FINAL – CAW/Cypress Amendment Conditions of Approval
 Adopted by MPWMD Board on September 15, 2014
 Page 2 of 6

7. Permittee shall comply with District rules relating to water Well registration, metering and annual reporting of production (MPWMD Rules 52 and 54). It is noted that two non-CAW Wells exist on the Donor Parcel, and the Donor Parcel Owner shall also comply with Rules 52 and 54 for those Wells. [Rule 22-D-1-e; Rule 22-D-2]
8. CAW and the Donor Parcel Owner shall report production by the Water Meter Method (MPWMD Rule 56) for the Wells designated in Conditions #4 and #7. [Rule 22-D-1-e; Rule 22-D-2]
9. The Donor Parcel and Recipient Parcel Owners shall comply with all MPWMD water conservation rules that pertain to CAW customers, as applicable, (e.g., commercial, hotel, residential, landscape). Current ordinances specify maximum water use rates for fixtures and require new development to install drought-resistant landscapes, and drip irrigation, where appropriate. Contact with the District Permit and Conservation Office at 831/658-5601 is recommended during project planning. [Rule 22-D-1-f]
10. No new Connections to the Permitted System may be set until a Water Permit has been secured from MPWMD for each Connection in accordance with MPWMD regulations governing issuance of Water Permits. Connection Capacity Fees shall be calculated based on water demand estimates using the District's water demand methodology at the time of the application. [Rule 22-D-1-g]
11. Any intensification or expansion on the Donor Parcel or Recipient Parcels within the Permitted System shall require a new application and Permit pursuant to MPWMD Rules 23 and 24. [Rule 22-D-1-k]
12. Any new facilities, expansion of service area boundaries, changed conditions regarding water service by other entities, increase in the production limit set in Condition #3, or other changes described in MPWMD Rule 22-E shall require a Permit to amend the Permitted System. [Rule 22-E]
13. No permanent intertie between the Permitted System and any other water system intended to provide service to the Recipient Parcels shall be allowed without amending this WDS Permit pursuant to Rule 22-E. The Recipient Parcels may receive non-CAW trucked-in water, as allowed by MPWMD and the Monterey County Health Department, in a non-fire emergency, system failure or similar short-term critical event that prevents CAW from serving the Parcels. The term "short-term" is defined as less than or equal to 120 days. The Permittee may apply in writing to the MPWMD Board of Directors for extensions to the 120-day time limit, each to be approved by the Board upon a finding of good cause, and each to be limited to a period of 120 days. Use of trucked-in water shall be guided by MPWMD Rule 173, provided however, that the number of trucks used to transport water shall be minimized to the extent practicable. The Recipient Parcels are within the CAW Service Area and may

receive CAW water for emergency fire service. [Rule 22-D-1-h]

14. A back-flow protection device to prevent contamination of the CAW system is not required as the Recipient Parcels will be served by CAW. However, if use of non-CAW Wells on the Recipient Parcels is contemplated, CAW and the Parcel owners must take appropriate action to ensure that the CAW system would not be contaminated. [Rule 22-D-1-h]
15. Because the Permitted System is a regulated Public Utility that provides water to nearly 40,000 customers, compliance with California Title 22 drinking water standards is already required and regulated by the California Department of Public Health. [Rule 22-C-2]
16. Permittee is not required to carry out specific mitigation measures by MPWMD above and beyond those already required by the Superior Court in the Seaside Basin Adjudication Decision or the Seaside Basin Watermaster. [Rule 22-D-1-i]
17. Permittee is required to provide an agreement to serve water to the Recipient Parcels. Permittee has provided an unexecuted *Agreement Regarding Front-Loading Delivery of Water* ("Front-Loading Agreement") between CAW and the Donor Parcel Owner (Cypress) regarding use of 8.0 AFY of Alternative Production Allocation water rights from the Donor Parcel as reduced per the formulas in the Adjudication Decision. A final executed copy of the Front-Loading Agreement must be provided to MPWMD within 60 days of the preparation date (see top of page 1) for this Permit to remain valid. [Rule 22-D-1-j]
18. Upon District approval of this Permit, Permittee (and/or Property Owner) shall pay to the District the invoiced cost for MPWMD staff, attorney and consultant time spent to process the Permit subsequent to the application date, if required. The Permittee is not charged for the first 40 hours of staff time or equivalent. The Permittee will be provided documentation to support the invoiced amount. This Permit is not valid until payment for the invoiced amount is received by MPWMD. The payment must be received within 60 days of the preparation date (see top of page 1) for this Permit to remain valid. [Rule 22-D-1-l]
19. Upon finalization of these conditions, the Permittee and Donor Parcel Owner shall sign and notarize an Acceptance of Permit Conditions Form associated with the approval of the Permitted System. By signing the form, Permittee acknowledges that Permittee understands and accepts these conditions as a binding part of the Permit approval, and agrees to carry them out faithfully. The Acceptance Form must be received by MPWMD within 60 days of the preparation date (see top of page 1) for this Permit to remain valid. [Rule 22-D-1-m]
20. Permittee and/or Donor Parcel Owner shall disclose to any future owner, successors and assigns of the CAW water system or the Donor Parcel described in Condition #1 (including owners of any future subdivided lot) the requirements for the Permitted System associated with this Permit. MPWMD shall be advised in a timely manner of any changes in system

ownership, system name, or other substantive changes to the system to facilitate accurate record-keeping. [Rule 22-D-2]

21. Given the unique nature of the CAW/Cypress Amendment, and the fact that the CAW system infrastructure is already in place in the Coastal Areas of the Seaside Groundwater Basin, this Permit does not include deadlines associated with the construction of new water facilities needed to serve future Recipient Parcels. [Rule 22-D-4]
22. Permittee shall ensure that the Donor Parcel Owner shall execute a Deed Restriction prepared by MPWMD regarding the limitation on water use as set forth in these conditions. Permittee shall pay all fees associated with preparation, review and recording of the Deed Restriction. The Deed Restriction must be signed and notarized by the Donor Parcel Owner (Cypress), and accepted by the Monterey County Recorder for processing within 60 days of the preparation date (see top of page 1) for this Permit to remain valid. [Rule 22-D-1-n]
23. Upon notice to the Permittee and/or Donor Parcel Owner (or designated representatives) in writing, e-mail or by telephone, reasonable access to the Site shall be given to MPWMD staff or its designated representative to inspect and document Water-Gathering Facilities and Water-Measuring Devices, obtain hydrogeologic data, and take readings from Water Measuring Devices. [Rule 22-D-1-o]
24. The Permit granted herein is subject to revocation in the event Permittee and/or Donor Parcel Owner do not fully comply with each and every condition set forth in this Permit. [Rule 22-D-1-p]

Other Standard Conditions of Approval

25. Nothing in this Permit shall be construed to grant or confirm any water right.
26. This Permit does not authorize any act that results in the taking of a threatened or endangered species or any act which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code Sections 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. Sections 1531 to 1544). If a "take" will result from any act authorized under this Permit, the Permittee shall obtain authorization for an incidental take prior to construction or operation of the project. Permittee shall be responsible for meeting all requirements of the applicable Endangered Species Act for the project authorized under this Permit.

Special Conditions of Approval

27. The Donor Parcel Owner (and successors) shall give notice to MPWMD and provide copies to MPWMD of any required correspondence by the Watermaster associated with future

FINAL – CAW/Cypress Amendment Conditions of Approval
Adopted by MPWMD Board on September 15, 2014
Page 5 of 6

transfers of Alternative Production Allocation rights to Standard Production Allocation rights.

28. CAW shall provide to the District a copy of any quarterly report to the State Water Resources Control Board, which may include information about service to the Recipient Parcels identified in Condition #1. Notice of a designated link to the CAW website is acceptable. If a website link is not available in the future, electronic or hard copies are acceptable.
29. A standard condition of approval for any Water Permit issued to the Owners of the Recipient Parcels is a voluntary binding agreement (“Notice and Deed Restriction”) to provide public access to water use data, upon request by MPWMD. Permittee shall provide to MPWMD any information authorized to be released in accordance with a Notice and Deed Restriction executed and recorded by a Recipient Parcel Owner.
30. CAW shall implement water accounting methods to track CAW production sources to ensure: (a) only water from Wells in the Coastal Subareas of the Seaside Basin Wells serve the Recipient Parcels identified in Condition #1, and (b) no Carmel River Basin water is produced by CAW to serve the Recipient Parcels, consistent with the May 11, 2009 Court Order and the executed Front-Loading Agreement. The MPWMD General Manager retains the right to review and approve these methods.
31. The Donor Parcel Owner shall ensure that any extractions from on-site Well(s) on the Donor Parcel shall not exceed 6.0 AFY production as measured by meters on the Well(s) that have been inspected and approved by District staff.

U:\mpwmd\WDS\Permits\011011020_CatAmCypress\CAWCyp_Conditions_V5_20140909.docx
Prepared by H. Stern on 9/24/2014 per Board approval; revised 10/13/2014 per counsel review

FINAL – CAW/Cypress Amendment Conditions of Approval
Adopted by MPWMD Board on September 15, 2014
Page 6 of 6

Attachment to Deed Restriction, page 7 of 19



ACCEPTANCE OF PERMIT CONDITIONS FOR APPROVAL OF "CAWC/CYPRESS AMENDMENT" (Amend California-American Water Company WDS via Transfer of Water Rights from Cypress Pacific Investors LLC Donor Parcel) Donor Parcel Location: APN 011-011-020 Service Area: California-American Water Company in Seaside Groundwater Basin MPWMD Permit #M14-05-L4

MPWMD Board Approval Date: September 15, 2014 Date Prepared: October 13, 2014

The Permittee, defined as California-American Water Company, a California corporation (CAW), and Property Owner, defined as Cypress Pacific Investors, LLC, a California limited liability company (Cypress), hereby confirm that Permittee and Property Owner have read and understand the Final Conditions of Approval for the Multiple-Parcel Connection System (Permit #M14-05-L4) approved by the Monterey Peninsula Water Management District Board of Directors on September 15, 2014 for the amendment of the CAW Water Distribution System (WDS) known as the "CAW/Cypress Amendment." The Permittee and Property Owner accept these conditions as a binding part of the WDS Permit approval, and promise to abide by and carry out these conditions in good faith. The Permittee and Property Owner agree to provide the WDS Permit referenced above and all related agreements and documents to any succeeding Owner or Operator of the WDS, or any succeeding Owner of the Donor Parcel.

Attach Notary Certificates

CALIFORNIA-AMERICAN WATER COMPANY, a California Corporation

By: [Signature] Date: 10/27/14 Edward Simon, Vice President, Operations

CYPRESS PACIFIC INVESTORS, LLC, a California Limited Liability Company

By: _____ Date: _____ Peter Taormina, Managing Member

U:\mpwmd\WDS\Permits\011011020_CalAmCypress\CAWCyp_AcceptCond_20140917.docx Prepared by H. Stern on 9/24/2014; revised 10/13/2014 per District Counsel review; corrected Cal-Am name 10/20/2014

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California
 County of San Diego }
 On Oct. 27, 2014 before me, Jane E. Grodzicki, Notary Public
Date Here Insert Name and Title of the Officer
 personally appeared Edward A. Simon II
Name(s) of Signer(s)



who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: [Handwritten Signature]
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____ Signer's Name: _____

Corporate Officer — Title(s): _____ Corporate Officer — Title(s): _____

Individual Individual

Partner — Limited General Partner — Limited General

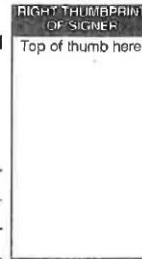
Attorney in Fact Attorney in Fact

Trustee Trustee

Guardian or Conservator Guardian or Conservator

Other: _____ Other: _____

Signer Is Representing: _____ Signer Is Representing: _____



Attachment to Deed Restriction, page 10 of 19

800-878-6827

Item #5907

ACKNOWLEDGMENT

State of California
County of Monterey)

On November 24, 2014 before me, Sandra L. Bruno, Notary Public
(insert name and title of the officer)

personally appeared Peter J. Taormina
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing
paragraph is true and correct.

WITNESS my hand and official seal.

Signature *Sandra L. Bruno* (Seal)



**Attached to Acceptance of Permit Conditions for Approval of "CAWC/Cypress Amendment"

ATTACHMENT 15

**COURT DOCUMENTS PERTAINING TO THE CITY OF
SEASIDE'S IN LIEU GROUNDWATER STORAGE PROGRAM**

1 RUSSELL MCGLOTHLIN (S.B. #208826)
rmcglothlin@omm.com
2 KATHERINE TAKAKJIAN (S.B. #324506)
ktakakjian@omm.com
3 O'MELVENY & MYERS LLP
400 South Hope Street
4 18th Floor
Los Angeles, California 90071-2899
5 Telephone: +1 213 430 6000
Facsimile: +1 213 430 6407

6 *Attorneys for Defendant City of Seaside*

7
8 **SUPERIOR COURT OF THE STATE OF CALIFORNIA**
9 **FOR THE COUNTY OF MONTEREY**
10

11 CALIFORNIA AMERICAN WATER,
12
13 Plaintiff,

14 v.

15 CITY OF SEASIDE, et al.,
16 Defendants.

17 MONTEREY PENINSULA WATER
MANAGEMENT DISTRICT,
18
19 Intervenor.

20 MONTEREY COUNTY WATER
RESOURCES AGENCY,
21
22 Intervenor.

23 AND RELATED CROSS ACTIONS.
24
25
26
27
28

Case No. M66343

**DEFENDANT CITY OF SEASIDE'S
NOTICE OF MOTION AND MOTION
FOR APPROVAL OF IN LIEU
GROUNDWATER STORAGE
PROGRAM**

Assigned for All Purposes to the Honorable
Robert O'Farrell, Ret.

Action Filed: August 14, 2003

Hearing: October 25, 2019, 1:30 p.m.

1 **TO ALL PARTIES AND THEIR COUNSEL OF RECORD:**

2 PLEASE TAKE NOTICE that Defendant City of Seaside hereby moves for an order of
3 the Court approving an in lieu groundwater storage program ("Motion"). This Motion is based
4 upon this notice, the attached memorandum of points and authorities, the attached request for
5 judicial notice, the attached proposed order, all other papers submitted in this action, and upon
6 any other argument or evidence that may be presented at or before the hearing on this Motion.

7 PLEASE TAKE FURTHER NOTICE that the Motion will be heard on October 25, 2019 at
8 1:30 p.m. before The Honorable Robert O'Farrell, Ret. at the Monterey Superior Court,
9 Department 13, located at 1200 Aguajito Road, Monterey, CA 93940.

10
11 Dated: September 4, 2019

RUSSELL MCGLOTHLIN
KATHERINE TAKAKJIAN
O'MELVENY & MYERS LLP

12
13
14 By: 

15 _____
16 Russell McGlothlin
17 Attorneys for Defendant
18
19
20
21
22
23
24
25
26
27
28

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

TABLE OF CONTENTS

	Page
MEMORANDUM OF POINTS AND AUTHORITIES	6
I. INTRODUCTION	6
II. BACKGROUND	6
III. ARGUMENT	8
A. The Program Is Consistent with the Terms of the Decision.	9
a. The City Has a Right to Store Water in the Basin.	9
b. The Decision Does Not Require the City to Convert Its APA to SPA to Undertake In Lieu Storage.	10
B. The Program Is Consistent with California Policy.	12
a. California Encourages the “Conjunctive Use” of Surface Water and Groundwater Resources.	12
b. California Encourages the Use of Recycled Water for Non-Potable Uses.	12
c. In Lieu Storage Is a Preferred Method of Groundwater Replenishment.	13
C. Alternative Storage Options Do Not Achieve Maximum Beneficial Use and Would Cause Adverse Results.	13
IV. CONCLUSION	14

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

TABLE OF AUTHORITIES

Page(s)

Cases

Central and West Basin Water Replenishment Dist. v. Southern Cal. Water Co.,
(2003) 9

City of Barstow v. Mojave Water Agency,
(2000) 23 Cal. 4th 1224 11

City of Los Angeles v. City of San Fernando,
(1975) 14 Cal.3d 199 10, 11

City of Santa Maria v. Adam,
(2012) 211 Cal.App.4th 266 10, 11

Hillside Memorial Park & Mortuary v. Golden State Water Co.,
(2011) 205 Cal.App.4th 534 9

Niles Sand & Gravel Co. v. Alameda County Water Dist.,
(1974) 37 Cal.App.3d 924..... 9

Statutes

Gov. Code § 38730 7

Wat. Code § 100..... 12

Wat. Code § 1011.5..... 12

Wat. Code § 13550..... 11, 12

Wat. Code § 13551..... 11

Wat. Code § 275..... 12

Wat. Code §§ 13500-13557 12

Wat. Code §§ 13575-13583 12

Other Authorities

Cal. Dept. of Water Resources, Water Available for Replenishment - Final Report, Appendix C
(April 2018) p. 7, at <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Data-and-Tools/Files/Statewide-Reports/WAFR/Final/Appendix-C-for-Water-Available-for-Replenishment---Final-Report.pdf>
[as of Aug. 14, 2019] 13

Cal. State Water Resources Control Board, Recycled Water Policy (May 21, 2009) at
https://www.waterboards.ca.gov/water_issues/programs/water_recycling_policy/docs/finalapprovedpolicy_020309.pdf [as of August 21, 2019]..... 13

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

TABLE OF AUTHORITIES
(continued)

Page(s)

S. Hastings and D. Johnson, Municipal Water Reuse In An Increasing Complex Regulatory Environment (May 4, 2018) p. 6, at <https://www.cacities.org/Resources-Documents/Member-Engagement/Professional-Departments/City-Attorneys/Library/2018/Spring-Conference-2018/5-2018-Spring;-Hastings-Johnson-Municipal-Water-Re.aspx> [as of Aug. 14, 2019] 12

Constitutional Provisions

Cal. Const., Article X, § 2 9, 12, 14
Cal. Const., Article XI, § 9 7

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

MEMORANDUM OF POINTS AND AUTHORITIES

I. INTRODUCTION

Defendant, City of Seaside (“City”) applied to the Watermaster of the Seaside Groundwater Basin for an in lieu storage program that will promote the maximum beneficial use of recycled water. The proposed program would substitute recycled water in lieu of the current use of approximately 450 acre feet per year (“AFY”) of groundwater produced from the Seaside Groundwater Basin, for irrigation of the City’s Bayonet and Blackhorse Golf Courses. After review of the application, the Watermaster determined that the Decision was unclear as to whether the Watermaster possesses the authority to approve the proposed in lieu storage program and instructed the City to file this Motion for the Court’s consideration of this matter. By this Motion, the City seeks the Court’s direction to the Watermaster respecting approval of the proposed in lieu storage program.

II. BACKGROUND

Seaside Groundwater Basin (“Basin”) is located in northern coastal Monterey County. It underlies the Cities of Seaside, Sand City, Del Rey Oaks, Monterey, and portions of unincorporated county areas, including the southern portions of the former Fort Ord and the Laguna Seca Area. The Basin contains 52,030 acre-feet of usable storage, and is one of approximately two dozen groundwater basins in California that have been adjudicated by the courts and are now subject to judicial management. On February 9, 2007, Judge Randall entered the amended decision (“Decision”) governing water rights in the Basin. The Decision:

- calculates the “safe yield” of the Basin;
- implements a series of 10% triennial rampdowns in allowed annual production until the total Basin production is no more than the natural safe yield;
- allocates the allowed annual production between the parties;
- establishes two “classes” of adjudicated production rights:
 - Standard Production Allocation (“SPA”), which generally reflects the characteristics of an *appropriative* groundwater right under the common

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

law; and

- Alternative Production Allocation (“APA”), which generally reflects the characteristics of an *overlying* groundwater right under the common law;
 - allows for groundwater replenishment and storage;
 - permits “carryover” of unused SPA from year to year;
 - allows for transfers of SPA;
 - establishes the Seaside Groundwater Basin Watermaster to assist in the implementation of the Decision and the management of the Basin;
 - requires the Watermaster to assess administrative budget and replenishment assessments to finance its administrative activities and Basin replenishment; and
 - reserves continuing jurisdiction to the Court to modify the Decision as appropriate and to resolve any disputes.

The Decision continues to control today.

The City is a general law city situated in the County of Monterey. The City produces groundwater from the Basin for two primary purposes: (1) the provision of municipal water service to its residents, and (2) use on two City-owned golf courses—the Bayonet and Blackhorse Golf Courses (“the Courses”)—that overlie the Basin. (*See* Cal. Const., Art. XI, § 9; Gov. Code, § 38730.) As one of the parties to the Decision, the City has both APA and SPA. The City’s SPA applies to its municipal system, while its APA is appurtenant to the Courses. In 2010, a Declaration by the Watermaster allotted the City a maximum storage amount of 2,361 acre-feet in the Basin, roughly 7.4% of the Basin’s total usable storage allocation. (*See* Exhibit A to the Declaration of Russell McGlothlin accompanying the City’s concurrently filed Request for Judicial Notice.)

Pursuant to the terms of the Decision, on June 5, 2019, the City submitted to the Watermaster an application for execution of a Storage and Recovery Agreement for the proposed in lieu storage program (“Program”) pursuant to Section III.3.L.3.j.xix of the Decision. The application was subsequently reviewed by the Watermaster at its regular board meeting on

1 August 7, 2019. The proposed Program will substitute recycled water, purchased from Marina
2 Coast Water District (“MCWD”), for irrigation of the Courses in lieu of the current use of
3 approximately 450 AFY of groundwater produced from the Basin. This substitution will achieve
4 replenishment and storage of water in the Basin. Under the terms of the Program, delivery of
5 recycled water to the Courses will be metered and reported to the Watermaster on a schedule and
6 pursuant to appropriate terms to be set forth in the storage and recovery agreement. The quantity
7 of recycled water applied annually at the Courses will establish the amount of water “stored”
8 annually in the Basin via in lieu storage.

9 Stored water will be recaptured by the City at its Well Number 4 (or a future planned
10 replacement for this well), and subsequently be used to serve anticipated projects, such as the
11 Campus Town and Main Gate projects, for which there is presently insufficient allocation.¹ The
12 Program will also allow the City to recover some of the stored water to serve the City’s municipal
13 water system. This will offset demand exceedances in excess of the City’s SPA for its municipal
14 system resulting from the rampdown in SPA pursuant to the Decision’s provisions.

15 The Watermaster’s board considered the City’s application for the Program at its August
16 7, 2019 board meeting. The board was generally supportive of the Program, but concluded that
17 the Decision is unclear as to whether it authorizes the Watermaster to approve the Program. It
18 thus instructed the City to bring this Motion for consideration of the application by the Court. At
19 the board’s direction, Watermaster staff also prepared a letter addressed to the Court discussing
20 the matter. Watermaster staff instructed the City to include the letter with this Motion. A true and
21 correct copy of that letter is attached as Exhibit B to the Declaration of Russell McGlothlin
22 accompanying the City’s concurrently filed Request for Judicial Notice.

23 **III. ARGUMENT**

24 If approved, the Program will positively affect the City, its residents, the Basin, and the
25 environment. As discussed in more detail below, approval of the Motion is supported by sound
26 legal precedent and policy. The proposed Program is in accord with the terms of the Decision and
27

28 ¹ Pursuant to the Fort Ord Reuse Authority’s water allocation program.

1 conforms to the Golden Rule of California water law and policy: “that the water resources of the
2 State be put to beneficial use to the fullest extent of which they are capable, and that the waste or
3 unreasonable use or unreasonable method of use of water be prevented.” (Cal. Const. Art. X, § 2.)

4 **A. The Program Is Consistent with the Terms of the Decision.**

5 *a. The City Has a Right to Store Water in the Basin.*

6 In the Watermaster’s Declaration of Total Usable Storage Space (February 3, 2010), the
7 City was granted 2,361 acre-feet of storage in the Basin. This storage space is a derivative of the
8 City’s SPA. But as a public agency, the City need not rely on that allocation alone to make use of
9 storage space in the Basin for public purposes. Section III.H.1 of the Decision provides that
10 “Underground Storage within the Seaside Basin is and shall remain a public resource.”² Public
11 agencies—like the City—have the right to store water by “Direct Injection, Spreading, or other
12 artificial means.” (Decision, Section III.H.6.) The City therefore has a right to make use of
13 unused storage space within the Basin for public purposes. It seeks to assert this right through in
14 lieu substitution of recycled water for an existing non-potable use of potable groundwater. While
15 this substitution happens to be on City-owned golf courses, the City could do a similar
16 substitution of *any* non-potable demand as a means of establishing in lieu storage.

17 California courts have long recognized the public nature of subterranean storage space and
18 the right of public agencies to make use of such storage space for the public welfare. (*See e.g.*,
19 *Niles Sand & Gravel Co. v. Alameda County Water Dist.* (1974) 37 Cal.App.3d 924, 933-934
20 [discussing a public servitude applicable to storage space]; *see also Central and West Basin*
21 *Water Replenishment Dist. v. Southern Cal. Water Co.* (2003) 109 Cal.App.4th 891, 904-905
22 [explaining that underground storage space is a public resource and that California Constitutional
23 policy requires it be put to use for the public welfare]; *accord Hillside Memorial Park &*
24 *Mortuary v. Golden State Water Co.* (2011) 205 Cal.App.4th 534, 539-540.)

25
26 ² The Decision’s statement that “subsurface storage space is a public resource is amply
27 supported by the Constitution and Water Code.” (*See Central and West Basin Water*
Replenishment Dist. v. Southern Cal. Water Co. (2003) 109 Cal.App.4th 891, 905.)

1 The City is *not* requesting to use its APA as a basis for its proposed storage program.³ Nor
2 is the City seeking to transfer the APA associated with the Courses for use on another property.
3 Such endeavors would be barred by Sections III.A.35 and III.B.3.a of the Decision, respectively.
4 Rather, the City *is* entitled to store water in the Basin both in relation to its express storage
5 allocation of 2,361 acre-feet, and generally as a public agency, making use of public groundwater
6 storage resources. The Courses will only serve as a means of introducing recycled water into the
7 Basin through in lieu storage methods. Under the Program, the City’s APA will remain
8 appurtenant to the Courses.

9 *b. The Decision Does Not Require the City to Convert Its APA to SPA to*
10 *Undertake In Lieu Storage.*

11 Some may read the Decision and conclude that the City should be required to convert its
12 APA (currently appurtenant to the Courses) into SPA to facilitate the Program. Section III.B.3.e
13 of the Decision allows a pumper to convert APA to SPA and thereafter transfer the new SPA
14 away from the property to which the APA was initially allocated. Once converted, the new SPA
15 is subject to all rampdowns, which will amount to a greater than a 50% reduction when the final
16 triennial rampdown goes into effect in 2021. The City, though, is not proposing to convert its
17 APA to SPA and transfer the SPA. It intends to leave the APA appurtenant to the property and
18 substitute recycled water for the exercise of the APA. Consequently, the City will store water, the
19 Basin will benefit from the higher water levels for so long as the stored water remains in the
20 Basin, and a non-potable demand will switch from potable groundwater to recycled supplies, all
21 consistent with water management policy. The stored water credited to the City would also be
22 consistent with the developed water doctrine; that is, a party responsible for introducing new
23 water to a groundwater basin has an exclusive right to recover the augmented and recoverable
24 yield attributable to their actions—i.e., a fruits-of-one’s-labor standard. (*See City of Los Angeles*
25 *v. City of San Fernando* (1975) 14 Cal.3d 199, 256-262; *City of Santa Maria v. Adam* (2012) 211
26 Cal.App.4th 266, 301; 304-307.)

27 _____
28 ³ The Decision allocates storage rights only to SPA producers.

1 The City acknowledges that Section III.B.3.d of the Decision creates some ambiguity in
2 relation to the City's proposed Program. That section provides:

3 In the event a Party electing the Alternative Production Allocation is required to utilize
4 reclaimed Water for irrigation purposes, pursuant to the terms of sections 13550 and
5 13551 of the California Water Code, that Party shall have the first opportunity to
6 obtain and substitute reclaimed Water for its irrigation demands. Should that Party not
7 pursue such substitution with due diligence, any other Party may provide reclaimed
8 Water for the irrigation purpose pursuant to the terms of sections 13550 and 13551 of
9 the California Water Code. Under either circumstance, the Party providing the
10 reclaimed Water for substitution shall obtain a credit to Produce an amount of
11 Groundwater equal to the amount of substituted reclaimed Water in that particular
12 Water Year, *provided that such credit shall be reduced proportionately to all*
13 *reductions in the Operating Yield in accordance with Section III.L.3.j.ii.* The
14 Alternative Production Allocation of the Party utilizing the reclaimed Water shall be
15 debited in an amount equal to the reclaimed Water being substituted. (emphasis
16 added.)

17 This section provides that the party substituting recycled water for a non-potable demand,
18 consistent with statutory requirements, will be credited with a production amount equivalent to
19 the amount of the substitution. The section also provides, however, that the credit will be reduced
20 proportionately to all rampdown then in effect. The reduction requirement mirrors the APA-to-
21 SPA conversion provisions in Section III.B.3.e., which immediately follows in the Decision. That
22 is, if APA is stripped from the appurtenant parcel for use elsewhere, the use becomes akin to an
23 appropriative groundwater right, which is junior in priority to overlying rights,⁴ and thus is
24 properly burdened by necessary rampdowns in basin yield. The "credit" afforded to a party
25 substituting recycled water, however, is not like an APA-to-SPA conversion (i.e., a conversion of
26 an overlying right to an appropriative right). Instead, the credit is akin to a *developed* water right
27 credited to a party introducing new water to the basin that would not exist but for the party's
28 actions. As noted above, a developed water right is properly quantified by the amount of
augmented and recoverable yield attributable to such efforts. (See *San Fernando*, 14 Cal.3d at
256-262; *Santa Maria*, 211 Cal.App.4th at 301; 304-307.)

Again, the City is not proposing to convert its APA to SPA; the APA will remain
appurtenant to the golf course parcels. It just substituting existing potable groundwater

⁴ See *City of Barstow v. Mojave Water Agency* (2000) 23 Cal. 4th 1224, 1241.

1 production to create stored water. Consistent with the policies inherent in the developed water
2 doctrine, the City should receive the full fruits of its labor; the stored water credit should equal
3 the amount of the augmented and recoverable yield.

4 **B. The Program Is Consistent with California Policy.**

5 *a. California Encourages the “Conjunctive Use” of Surface Water and*
6 *Groundwater Resources.*

7 Conjunctive use is the coordinated use of surface water (including recycled water) and
8 groundwater resources to optimize water supply management and benefits. Conjunctive use
9 allows entities to maximize the utility from a portfolio of water resources. The California Water
10 Code proclaims that it is state policy to “encourage conjunctive use of surface water and
11 groundwater supplies . . .” (Wat. Code § 1011.5.) The Program is a prime example of conjunctive
12 use; it utilizes recycled water and in lieu storage to allow the City to accumulate stored water in
13 the Basin, which will in turn benefit the Basin and the water supplies of the City.

14 *b. California Encourages the Use of Recycled Water for Non-Potable Uses.*

15 California policy encourages the use of recycled water because it maximizes the beneficial
16 use of the state’s water resources. (See Cal. Const. Art. X, § 2; Wat. Code § 100; see also Wat.
17 Code § 275.) Indeed, the California Legislature has declared that, when recycled water is
18 available, using *potable* water for *non-potable* uses “is a waste and unreasonable use of water
19 within the meaning of Section 2 of Article X of the California Constitution.” (See Wat. Code §
20 13550.) To further its policy of promoting the maximum beneficial use of recycled water for non-
21 potable uses, the Legislature enacted the Water Recycling Law (Wat. Code §§ 13500-13557) and
22 the Water Recycling Act of 1991 (Wat. Code §§ 13575-13583). The former includes policies
23 promoting the use of recycled water to supplement water supplies, while the latter encourages the
24 formation of recycled water delivery agreements and mandates the use of recycled water when
25 available.⁵ Given the unprecedented water crisis facing the state, California has adopted policies

26 _____
27 ⁵ S. Hastings and D. Johnson, *Municipal Water Reuse In An Increasing Complex Regulatory*
28 *Environment* (May 4, 2018) p. 6, at <https://www.cacities.org/Resources-Documents/Member->

1 to promote and increase the use of recycled water; this includes a goal to substitute “as much
2 recycled water for potable water as possible by 2030.”⁶ The Program promotes these policies.

3 *c. In Lieu Storage Is a Preferred Method of Groundwater Replenishment.*

4 In lieu storage is a common means of recharging groundwater with surface supplies for
5 conjunctive use. In lieu storage occurs when a non-native water supply is substituted for the use
6 of native groundwater production. In lieu storage accomplishes two key objectives: (1) it avoids
7 the necessity of creating or using infrastructure to inject or spread water for replenishment, and
8 (2) it avoids any necessary treatment prior to said injection or spreading.⁷ The California
9 Department of Water Resources recognizes the benefits achieved from groundwater
10 replenishment “through in-lieu recharge when recycled water replaces source water supplied by
11 groundwater.”⁸

12 **C. Alternative Storage Options Do Not Achieve Maximum Beneficial Use and**
13 **Would Cause Adverse Results.**

14 If the Program is not approved, the City will be forced to pursue other storage options.
15 One option would be *direct* injection and recovery of water through an aquifer storage and
16 recovery well (“ASR Well”). A direct injection project would make use of the City’s dedicated
17 storage space in the same manner as previously authorized by the Watermaster on behalf of
18 Plaintiff, California American Water Company. (See Exhibit C to the Declaration of Russell

19 _____
20 [Engagement/Professional-Departments/City-Attorneys/Library/2018/Spring-Conference-2018/5-2018-Spring-Hastings-Johnson-Municipal-Water-Re.aspx](https://www.waterboards.ca.gov/Professional-Departments/City-Attorneys/Library/2018/Spring-Conference-2018/5-2018-Spring-Hastings-Johnson-Municipal-Water-Re.aspx) [as of Aug. 14, 2019].

21 ⁶ Cal. State Water Resources Control Board, Recycled Water Policy (May 21, 2009), at
22 https://www.waterboards.ca.gov/water_issues/programs/water_recycling_policy/docs/finalapprovedpolicy_020309.pdf [as of August 21, 2019].

23 ⁷ The method of replenishment directly impacts the requirements for water quality for storage
24 of surface water underground. “[A]n in-lieu project may only need to consider the willingness of
25 users to accept the quality of water from a surface water project, while a project that proposes to
26 inject surface water directly into an aquifer may be required to meet stricter water quality
27 standards.” (Cal. Dept. of Water Resources, Water Available for Replenishment - Final Report,
28 Appendix C (April 2018) p. 7, at <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Data-and-Tools/Files/Statewide-Reports/WAFR/Final/Appendix-C-for-Water-Available-for-Replenishment---Final-Report.pdf> [as
of Aug. 14, 2019] (hereafter Water Available For Replenishment).)

⁸ Water Available for Replenishment, *supra* n.7 at p. 35.

1 McGlothlin accompanying the City’s concurrently filed Request for Judicial Notice.) Such a
2 program, however, would require the City to spend several million dollars to construct an ASR
3 Well. Such use of public funds would be strikingly wasteful given the readily available alternative
4 means to undertake storage of the recycled water through in lieu means. The physical
5 construction of an ASR Well could also have a negative environmental impact in relation to the
6 drilling, land use, power, and other consumptive behaviors required to artificially inject water into
7 the Basin.

8 Further, if the City were precluded from engaging in in lieu storage as proposed, the City
9 would continue to use potable groundwater to irrigate the Courses. This result would contravene
10 state policy that encourages maximum use of recycled water and the California Constitutional
11 policy of achieving optimal utility from available water resources. (*See supra* pp. 7-8; Cal. Const.
12 Art. X, § 2.) The same would likely be the result if the Program were approved, but the City were
13 required to incur the reductions resulting from an APA-to-SPA conversion. Such outcome would
14 effectively more than double the cost of recycled water to create an acre-foot of stored water and
15 the City would obtain less than half of the benefits. Under such circumstances, the financial and
16 water supply consequences would force the City to pursue direct injection instead of in lieu
17 replenishment as proposed. Given that the Basin is not harmed in any way from an in lieu
18 approach in comparison to a direct injection approach, it would be unjust and counter to sound
19 policy to require an APA-to-SPA conversion and the resulting reduction.

20 The Court should avoid an interpretation of the Decision that yields such
21 counterproductive results. In the alternative, if the Court were to interpret the Decision to
22 preclude approval of the Program, in the interest of advancing the public policies discussed
23 herein, the Court should exercise its continuing jurisdiction to amend the Decision so that the
24 Program may be approved as proposed. (Decision, Section III.O.1.A [authorizing the Court to
25 “modify, amend or amplify any of the provisions of this Decision”].)

26 **IV. CONCLUSION**

27 By its application, the City has proposed an in lieu storage program that is consistent with
28

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

the Decision and responsible water management. In simplest terms, the Program:

- is permitted under the terms of the Decision as a use of public groundwater storage resources by a public agency for public benefit;
- leaves the City's APA appurtenant to the Courses (i.e., does not seek to transfer the APA);
- does not require the City to convert its APA to SPA;
- does not rely on APA as a basis for storage inconsistent with the Decision;
- promotes conjunctive use and the use of recycled water for a non-potable use in accordance with California policy;
- avoids the continued use of potable water for the irrigation of non-potable demands on the Courses;
- weighs favorably considered against all alternative options;
- avoids unnecessary expenditures of scarce public funds;
- preserves environmental resources;
- allows the City to accumulate stored water in the Basin; and
- facilitates the City's land use and water planning goals.

For these reasons, the City urges the Court to approve this Motion.

Dated: September 4, 2019

RUSSELL MCGLOTHLIN
KATHERINE TAKAKJIAN
O'MELVENY & MYERS LLP

By: 
Russell McGlothlin
Attorneys for Defendant

1 RUSSELL MCGLOTHLIN (S.B. #208826)
rmcglathlin@omm.com
2 KATHERINE TAKAKJIAN (S.B. #324506)
ktakakjian@omm.com
3 O'MELVENY & MYERS LLP
400 South Hope Street
4 18th Floor
Los Angeles, California 90071-2899
5 Telephone: +1 213 430 6000
Facsimile: +1 213 430 6407

6 *Attorneys for Defendant City of Seaside*
7

8 **SUPERIOR COURT OF THE STATE OF CALIFORNIA**
9 **FOR THE COUNTY OF MONTEREY**
10

11 CALIFORNIA AMERICAN WATER,

12 - Plaintiff,

13 v.

14 CITY OF SEASIDE, et al.,

15 Defendants.
16

17 MONTEREY PENINSULA WATER
MANAGEMENT DISTRICT,

18 Intervenor.
19

20 MONTEREY COUNTY WATER
RESOURCES AGENCY,

21 Intervenor.
22

23 AND RELATED CROSS ACTIONS.
24
25
26
27
28

Case No. M66343

**NOTICE OF ENTRY OF ORDER ON
MOTION FOR APPROVAL OF IN
LIEU GROUNDWATER STORAGE
PROGRAM**

Assigned for All Purposes to the Honorable
Robert O'Farrell

Action Filed: August 14, 2003

NOTICE OF ENTRY OF ORDER

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

TO ALL PARTIES AND THEIR ATTORNEYS OF RECORD:

PLEASE TAKE NOTICE that on October 25, 2019, the Honorable Robert O'Farrell entered the attached Order on Motion for Approval of In Lieu Groundwater Storage Program ("Order"). A true and correct copy of the Order is attached hereto as **Exhibit A**.

Executed on October 28, 2019.

RUSSELL MCGLOTHLIN
O'MELVENY & MYERS LLP

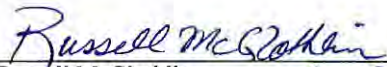
By: 
Russell McGlothlin *(cm)*
Attorney for Defendant City of Seaside

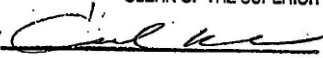
EXHIBIT A

1 RUSSELL MCGLOTHLIN (S.B. #208826)
rmcglathlin@omm.com
2 KATHERINE TAKAKJIAN (S.B. #324506)
ktakakjian@omm.com
3 O'MELVENY & MYERS LLP
400 South Hope Street
4 18th Floor
Los Angeles, California 90071-2899
5 Telephone: +1 213 430 6000
Facsimile: +1 213 430 6407
6
7 *Attorneys for Defendant City of Seaside*

FILED IN COURT

10-25-19

CLERK OF THE SUPERIOR COURT

BY  DEPUTY

Carol Melber

8
9 SUPERIOR COURT OF THE STATE OF CALIFORNIA
10 FOR THE COUNTY OF MONTEREY

11 CALIFORNIA AMERICAN WATER,
12
13 Plaintiff,
14
15 v.
16 CITY OF SEASIDE, et al.,
17
18 Defendants.

Case No. M66343

~~PROPOSED~~ ORDER

Assigned for All Purposes to the Honorable
Robert O'Farrell

Action Filed: August 14, 2003

17 MONTEREY PENINSULA WATER
18 MANAGEMENT DISTRICT,

19 Intervenor.

20 MONTEREY COUNTY WATER
21 RESOURCES AGENCY,

22 Intervenor.

23 AND RELATED CROSS ACTIONS.
24
25
26
27
28

[PROPOSED] ORDER

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

[PROPOSED] ORDER ON MOTION

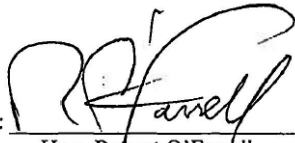
The Court, having considered the City of Seaside's Motion for Approval of In Lieu Groundwater Storage Program, in connection with all other papers submitted in this matter, and all argument or evidence presented, finds as follows:

The Program is consistent with the terms of the Decision and with California law and policy. Implementation of the in lieu groundwater storage program proposed by the City does not require the conversion of the City's alternative production allocation to standard production allocation, and is preferable to all available alternatives. The Program is financially and environmentally prudent, and promotes the highest beneficial use of the water resources available to the Monterey Peninsula.

Good cause having been shown, the Motion is **GRANTED**.

IT IS SO ORDERED.

Dated: 10/25/19

By: 

Hon. Robert O'Farrell
Monterey Superior Court

**California American Water v. City of Seaside
Monterey County Superior Court Case No. M66343
SERVICE LIST**

Anthony Cerasuolo, Esq.
California-American Water Co.
511 Forest Lodge Road, Suite 100
Pacific Grove, CA 93950
Tel.: (831) 646-3240
Fax: (831) 375-4367
acerasuolo@amwater.com
Attorneys for California-American Water Company

Alex Lorca, Esq.
Fenton & Keller
2801 Monterey Salinas Highway
Monterey, CA 93942-0791
Tel.: (831) 235-9995
alex@laredolaw.net
Attorneys for City of Del Rey Oaks

Vibeke Norgaard, Esq.
City Attorney of Sand City
P.O. Box 183
Carmel, CA 93921
Tel.: (831) 624-1971
vibeke@vnorgaardlaw.com
Attorneys for City of Sand City

Charles J. McKee, Esq.
Kelly L. Donlon
Office of County Counsel
168 W. Alisal Street, 3rd Floor Salinas, CA 93901
Tel.: (831) 755-5045
Fax: (831) 755-5283
mckeej@co.monterey.ca.us
granti@co.monterey.ca.us
Attorneys for County of Monterey

Robert Donlan, Esq.
Ellison Schneider & Harris LLP
2600 Capitol Ave Ste 400 Sacramento, CA 95816-5905
Tel.: (916) 447-2166
Fax: (916) 447-3512
red@eslawfirm.com
Attorneys for California-American Water Company

Christine Davi, Esq.
Monterey City Attorney's Office
512 Pierce Street
Monterey, CA 93940
Tel.: (831) 646-3915
Fax: (831) 3 73-1634
davi@monterey.org
Attorneys for City of Monterey

Don Freeman
Sheri Damon, Esq.
City Attorney's Office
440 Harcourt Avenue
Seaside, CA 93955-4708
Tel.: (831) 899-6890
Fax: (831) 718-8602
sdamon@ci.seaside.ca.us
Attorneys for City of Seaside

Kevin M. O'Brien, Esq.
Steven P. Saxton, Esq.
Downey Brand LLP
621 Capitol Mall, 18th Floor Sacramento, CA 95814
Tel.: (916) 444-1000
Fax: (916) 444-2100
kobrien@downeybrand.com
ssaxton@downeybrand.com
Attorneys for County of Monterey

Charles J. McKee, Esq.
Kelly L. Donlon
Office of County Counsel
168 W. Alisal Street, 3rd Floor
Salinas, CA 93901
Tel.: (831) 755-5045
Fax: (831) 755-5283
mckeecj@co.monterey.ca.us;
avilajj@co.monterey.ca.us
donlonkl@co.monterey.ca.us
Attorneys for Monterey County Water Resources Agency

Lisa A. Cole
Granite Rock Company
350 Technology Drive
Watsonville, CA 95076
Tel.: (831) 786-2107
Legal@graniterock.com
Attorneys for Granite Rock Company

Anthony Lombardo, Esq.
Anthony Lombardo & Associates
144 W. Gabilan Street
Salinas, CA 93901
Tel.: (831) 751-2330
Fax: (831) 751-2331
tony@alombardolaw.com
Attorneys for Laguna Seca Resort, Inc.

Frederick L. Kennifer
Johnson, Fanti & Kennifer, LLP
500 Camino El Estero
Monterey, CA 93940
rkennifer@johnsonfantl.com
Tel.: (831) 373-2800
Attorney for York School, Inc.

Paul Bruno, Member
Cypress Pacific Investors, LLC
P.O. Box 400
Marina, CA 93933
Tel.: (831) 384-4081
paul@mpe2000.com
For Cypress Pacific Investors, LLC, Successor in Interest to Muriel Calabrese 1987 Trust

David C. Sweigert, Esq.
Derric G. Oliver, Esq.
Fenton & Keller
2801 Monterey Salinas Highway
P.O. Box 791
Monterey, CA 93942-0791
Tel.: (831) 373-1241
dsweigert@fentonkeller.com
doliver@fentonkeller.com
esalameh@fentonkeller.com
Attorneys for D.B.O. Development Company No. 30

Eric Robinson, Esq.
Kronick, Moskovitz, Tiedemann & Girard
400 Capitol Mall, 27th Floor
Sacramento, CA 95814
Tel.: (916) 321-4500
Fax: (916) 321-4555
erobinson@kmtg.com
Attorneys for Bishop, McIntosh & McIntosh

John M. Garrick
801 S. Figueroa Street, Suite 1750
Los Angeles, CA 90017
(213) 404-4106
jgarrick@lgl-law.com
Attorneys for Mission Memorial Park

David Laredo, Esq.
Delay & Laredo
606 Forest Avenue
Pacific Grove, CA 93950
Tel.: (831) 646-1502
Fax: (831) 646-0377
dave@laredolaw.net
Attorneys for Monterey Peninsula Water Management District

Ed Ghandour
Security National Guaranty Inc.
505 Montgomery Street, 11th Floor
San Francisco, CA 94111
Tel.: (415) 874-3121
Fax: (415) 874-3001
edg.sng@equus-capital.com
For Security National Guaranty, Inc.

Laura Paxton
Watermaster Administrative Officer
P.O. Box 51502
Pacific Grove, CA 93950
Tel.: (831) 641-0113
watermasterseaside@sbcglobal.net
Seaside Groundwater Basin Watermaster

1 **PROOF OF SERVICE**

2 I declare that:

3 I am employed in the County of Sacramento, State of California. I am over the age of eighteen
4 and am not a party to the within action. My business address is ELLISON SCHNEIDER
5 HARRIS & DONLAN LLP; 2600 Capitol Avenue, Suite 400; Sacramento, California, 95816.

6 On January 13, 2020, I served the foregoing document described as:

7 **CALIFORNIA-AMERICAN WATER’S NOTICE OF FILING OF ANNUAL REPORT**

8 **by posting the document to the Odyssey e-file CA website** and causing the aforementioned
9 document to be electronically submitted to the email addresses specified in the attached Service
10 List, pursuant to court order or an agreement of the parties to accept service by electronic
transmission.

11 I declare under penalty of perjury that the foregoing is true and correct and that this declaration
12 was executed on January 13, 2020, at Sacramento, California.

13
14 

15 _____
16 Patty Slomski
17
18
19
20
21
22
23
24
25
26
27
28