

EXHIBIT 2-A

**ITEM VIII.C
9-2-20**

**SEASIDE GROUNDWATER BASIN
WATERMASTER**

TO: Board of Directors

FROM: Robert S. Jaques, Technical Program Manager

DATE: August 20, 2020

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

RECOMMENDATIONS:

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

BACKGROUND:

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

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

DISCUSSION

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

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

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

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

ATTACHMENTS

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

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Updated Unit Cost Table

WATER YEAR 2021 (October 1, 2020-September 30, 2021)				
ANTICIPATED UNIT COSTS OF WATER COULD POTENTIALLY BE USED FOR REPLENISHMENT OF THE SEASIDE BASIN				
POTENTIAL SOURCE OF REPLENISHMENT WATER	POTENTIAL DATE REPLENISHMENT WATER COULD BECOME AVAILABLE	POTENTIAL VOLUME OF WATER THAT COULD BE SUPPLIED BY THE PROJECT (AFY) ⁽¹⁾	BASE UNIT COST (\$/AF)	BASE UNIT COST YEAR
Regional Desalination ⁽²⁾	2022	6,250	\$6,147	2019
Groundwater Replenishment Project (Pure Water Monterey) ⁽⁶⁾	2020	3,500	\$2,442	2020
Monterey Peninsula Water Supply Project (Combined Regional Desalination with Groundwater Replenishment Project)	GWRP in 2020 Regional Desalination in 2022	9,750	\$4,817 ⁽³⁾	2018-2020
Seaside Basin ASR Expansion ⁽⁴⁾	2020	1,000	\$2,025	2016
Regional Urban Water Augmentation Project ⁽⁵⁾	2020	1,400-1,700	\$2,000	2018
FOOTNOTES:				
(1) For the Regional Desalination Project this is the total amount of water from this source which could potentially come to the CAW distribution system, based on the desalination plant having a 6.4 MGD capacity which is equivalent to 7,169 AFY. Only a portion of this amount might be available as initially unused capacity that could be used to help replenish the Seaside Basin. For the RUWAP this is the total amount of non-potable water from this source. Only a portion of this amount might be used for in-lieu replenishment of the Seaside Basin. For the ASR Expansion Project this is the additional amount of water that could potentially be provided by this project (see footnote 4). For the GWRP this is the quantity of water that is being planned at this time by CAW for inclusion in its Monterey Peninsula Water Supply Project.				
(2) Base unit cost data based on PUC filing documents and provided by Dave Stoldt of MPWMD. This unit cost was confirmed in August 2020 by Tim O'Halloran of Cal Am as being the latest unit cost available for this project.				
(3) Flow-weighted average unit cost of the combined desalination and groundwater replenishment projects, calculated as: $(6,250 \times \$6,147 + 3,500 \times \$2,442) / 9,750 = \mathbf{\$4,817}$.				
(4) Base unit cost data provided by MPWMD in 2016 and confirmed as still applicable in August 2020. The 1,000 AFY of potential water that this project could supply would be in addition to the 1,300 AFY included as part of the Monterey Peninsula Water Supply Project, and would be an annual average taking into account river flow and hydrologic conditions that change from year to year.				
(5) Project data provided by MCWD in 2016. This unit cost was confirmed in August 2020 by Patrick Breen of MCWD as being the latest unit cost available for this project.				
(6) Base unit cost based on information provided by Dave Stoldt of MPWMD as reported in the Carmel Pine Cone in early August 2020, and confirmed during Budget and Finance Committee meeting on August 18, 2020.				

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

ANTICIPATED UNIT COSTS OF REPLENISHMENT WATER FOR THE SEASIDE BASIN

POTENTIAL SOURCE OF REPLENISHMENT WATER	POTENTIAL DATE REPLENISHMENT WATER COULD BECOME AVAILABLE	POTENTIAL VOLUME OF WATER THAT COULD BE SUPPLIED BY THE PROJECT (AFY) ⁽⁴⁾	LEVEL OF PROJECT DEVELOPMENT	CONTINGENCY INCLUDED IN BASE UNIT COST ⁽²⁾ (%)	BASE UNIT COST (S/AF)	BASE UNIT COST YEAR	ADDITIONAL CONTINGENCY ADDED TO REFLECT LEVEL OF PROJECT DEVELOPMENT ⁽³⁾ (%)	UNIT COST INCLUDING ADDITIONAL CONTINGENCY (S/AF)	UNIT COST INFLATED @ 3% FROM COST BASIS YEAR TO YEAR REPLENISHMENT WATER COULD BECOME AVAILABLE (S/AF)	VOLUME-WEIGHTED AVG %
Monterey Peninsula Water Supply Project (Regional Desalination) ⁽⁶⁾	2018	9,752	Project Report	30%	\$3,507	2012	0%	\$3,507	\$4,188	56.53%
Seaside Basin ASR Expansion ⁽⁶⁾	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 ⁽⁶⁾ =									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-licu 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-licu 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 MCWID.

(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.

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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.				