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**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Application of California-American Water Company (U210W) to Obtain Approval of the Amended and Restated Water Purchase Agreement for the Pure Water Monterey Groundwater Replenishment Project, Update Supply and Demand Estimates for the Monterey Peninsula Water Supply Project, and Cost Recovery.

Application 21-11-024
(Filed November 29, 2021)

PHASE 2 DIRECT TESTIMONY OF CHRISTOPHER COOK

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Dated: July 20, 2022

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PHASE 2 DIRECT TESTIMONY OF CHRISTOPHER COOK

I. INTRODUCTION

- Q1. Please state your name and business address.
- A1. My name is Christopher Cook. My business address is 511 Forest Lodge Road, Suite 100, Pacific Grove, CA 93950.
- Q2. Have you previously provided testimony in this proceeding?
- A2. Yes, I submitted rebuttal testimony in Phase 1 of this proceeding on April 1, 2022 and April 29, 2022.

II. PURPOSE OF MY TESTIMONY

- Q3. What is the purpose of your testimony?
- A3. The purpose of my testimony is to provide information on source water needs for the Monterey Main System. The Monterey Main System is at a critical juncture with reductions in historic major sources of supply coupled with a multiyear drought. These circumstances highlight the need for additional source water supply with associated

1 infrastructure. Please see the Phase 2 Direct Testimony of Ian Crooks, Section V, for
2 additional analysis of water supply sources.

3
4 **III. SOURCE WATER NEEDS**

5 Q4. Are there Monterey Main System near term supply challenges that could occur if the
6 drought continues?

7 A4. Yes, if the drought continues for two to three more years and no new sources of water
8 with associated infrastructure are brought on-line during that time, there is a possibility
9 the current Aquifer Storage and Recovery (“ASR”) bank would be depleted and over
10 pumping of existing source waters would be required. This water year is projected to
11 approximately breakeven with supply and customer demand. The next water year (2022-
12 2023) the Carmel River pumping limit will further reduce from 4,110 acre-feet per year
13 (“AFY”) to 3,376 AFY. This 734 acre-foot (“AF”) reduction in source water, coupled
14 with minimal ASR injection due to Carmel River flow trigger requirements, will mean a
15 deficit in available supply. For the next water year, this could potentially be made up by
16 the 1,307 AF of ASR water currently banked in the Seaside Basin from previous rainy
17 years. However, this amount of stored water would likely not be sufficient if the drought
18 continued for the next two to three years.

19
20 Q5. Is there currently any Excess Water in the Drought Reserve account for Pure Water
21 Monterey (“PWM”)?

22 A5. No, per the Monterey Peninsula Water Management District’s invoice dated June 30,
23 2022, the Drought Reserve account is currently at 0 AF. Therefore, only the ASR bank
24 can be used at this time as stored water to makeup a deficit during a drought.

25
26 Q6. For sustainable long-term water supply, should additional source water constraints be
27 considered beyond Carmel River pumping reductions?
28

- 1 A6. Yes, Seaside Basin is now where the majority of water is pumped to meet Monterey Main
2 System customer demand. With dropping groundwater levels, it is at risk of being
3 susceptible to saltwater intrusion that could impact water quality of PWM, ASR, and
4 Seaside Native Water. Consequently, it is critical to achieve a Protective Groundwater
5 Elevation as soon as possible through replenishment of the Seaside Groundwater Basin.
6
- 7 Q7. Would 700 AFY of Seaside Basin replenishment water be sufficient to meet the
8 Protective Groundwater Elevations?
- 9 A7. No, replenishment modeling consistently indicates that additional replenishment is
10 needed. Replenishment modeling was performed in 2013 and is discussed in
11 HydroMetrics' Technical Memorandum dated April 5, 2013 titled "Groundwater
12 Modeling Results of Replenishment Repayment in the Seaside Basin." One of the
13 Scenarios evaluated in that work was to determine how much replenishment water would
14 be needed, in addition to the 700 AFY of reduced pumping by California American
15 Water under its over pumping repayment program, to achieve Protective Groundwater
16 Elevations within the Seaside Basin. The findings from this modeling work were that an
17 additional 1,000 AFY would be needed, on top of the California American Water
18 pumping reduction, for a period of 25 years for Protective Groundwater Elevations to be
19 achieved.
20
- 21 Q8. Is the 2013 replenishment modeling being updated to reflect more current information?
- 22 A8. Yes, the 2013 modeling is being updated by Montgomery & Associates to reflect current
23 information such as new hydrology and sources of water. The new hydrology is based on
24 a longer period of historical records and also reflects updates to ASR injection rates. The
25 new sources of water include PWM and ePWM. The preliminary findings from this
26 updated modeling work used MPWMD forecast demand. This technical memo concluded
27 that an additional 1,000 AFY would still be needed, on top of the California American
28 Water pumping reduction, in order for Protective Groundwater Elevations to be achieved.

1 The duration of the additional 1,000 AFY is shown as 11 years, but with a need for
2 additional injection after that period during drought years.

3
4 Based on Seaside Basin Watermaster Technical Advisory Committee (“TAC”) direction,
5 the modeling is now in the process of incorporating increased demand forecasting, as
6 reflected in the 2020 Urban Water Management Plan. The modeling is also incorporating
7 reduced ASR injection amounts, reflective of more current average ASR diversion
8 capacity. These results will likely extend the number of years the additional 1,000 AFY
9 replenishment will be needed for the Seaside Basin to achieve Protective Groundwater
10 Elevations. The latest technical memo is expected to be presented to the Seaside Basin
11 Watermaster TAC in August 2022.

12
13 Q9. What is California American Water doing to address the short-term and long-term need
14 to extract available water from the Seaside Basin?

15 A9. With ASR Well 1 now deactivated for extraction¹, California American Water is
16 currently working with state and local agencies on regulatory and engineering solutions
17 to increase pumping from Seaside Basin. These potential solutions include, but are not
18 limited to, a Paralta Well intertie and temporary mercury treatment at ASR Well 4. This
19 immediate work to increase pumping does not reduce the need for the four new wells
20 associated with ePWM. Added source waters are critical but cannot be reliably utilized
21 without associated infrastructure. These four new wells will allow for extraction of up to
22 an additional 2,250 AFY supply from ePWM, and they will provide additional flexibility
23 and reliability of the current operations.

24
25 Q10. Does this conclude your testimony?
26
27

28 ¹ Additional information on ASR Well 1 was previously provided in my Phase I Rebuttal
Testimony of Chris Cook, dated April 1, 2022, at Section IV.

1 A10. Yes.

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