

**ITEM: PUBLIC HEARING**

**15. CONSIDER ADOPTION OF OCTOBER THROUGH DECEMBER 2017 QUARTERLY WATER SUPPLY STRATEGY AND BUDGET (NOTICE OF EXEMPTION, CEQA, ARTICLE 19, SECTION 15301 (CLASS 1))**

<b>Meeting Date:</b>	<b>September 18, 2017</b>	<b>Budgeted:</b>	<b>N/A</b>
<b>From:</b>	<b>David J. Stoldt, General Manager</b>	<b>Program/ Line Item No.:</b>	<b>N/A</b>
<b>Prepared By:</b>	<b>Kevan Urquhart &amp; Jonathan Lear</b>	<b>Cost Estimate:</b>	<b>N/A</b>

**General Counsel Review:** N/A

**Committee Recommendation:** N/A

**CEQA Compliance:** (Notice of Exemption, CEQA, Article 19, Section 15301 (Class 1))

**ESA Compliance:** Consistent with the 2001 Conservation Agreement, 2009 Settlement Agreement between the National Marine Fisheries Service and California American Water to minimize take of listed steelhead in the Carmel River, and SWRCB WR Order Nos. 95-10, 98-04, 2002-0002, and 2016-0016.

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**SUMMARY:** The Board will accept public comment and take action on the October through December 2017 Quarterly Water Supply Strategy and Budget for California American Water's (Cal-Am) Main and Laguna Seca Subarea Water Distribution Systems (WDS). The proposed budgets, are included as **Exhibit 15-A and 15-B**, and show monthly production by source of supply that is required to meet projected customer demand in CalAm's Main and Laguna Seca Subarea systems (i.e., Ryan Ranch, Bishop, and Hidden Hills) during the October through December 2017 period. The proposed strategy and budgets are designed to maximize the long-term production potential and protect the environmental quality of the Seaside Groundwater and Carmel River Basins.

**RECOMMENDATION:** The Board should receive public input, close the Public Hearing, and discuss the proposed quarterly water supply budget. District staff will recommend adoption of the proposed budget. The budgets are described in greater detail in **Exhibit 15-C**, Quarterly Water Supply Strategy Report: October - December 2017

**BACKGROUND:** The Quarterly Water Supply Strategy and Budget pertains to production within Cal-Am's Main and Laguna Seca Subarea systems for the three-month period of October, November, and December 2017. The legal allocations for Water Year 2018 in Cal-Am's Main Sub Area WDS, specifically the Seaside Coastal Basin, have been reduced to 1,820 AF, and the Laguna Seca Subarea WDS to 0 AF by the triennial reductions in the Seaside Basin Adjudication. Staff from the District and Cal-Am met to cooperatively review, refine and approve this strategy on September 12, 2017. Staff from the California Department of Fish and Wildlife (CDFW), and National Marine Fisheries Service (NMFS) attended.

Rule 101, Section B of the District Rules and Regulations requires that a Public Hearing be held at the time of determination of the District water supply management strategy. Adoption of the quarterly water supply strategy and budget is categorically exempt from the California Environmental Quality Act (CEQA) requirements as per Article 19, Section 15301 (Class 1). A Notice of Exemption will be filed with the Monterey County Clerk's office, pending Board action on this item.

**EXHIBITS**

- 15-A** Quarterly Water Supply Strategy and Budget for CAW Main System: October - December 2017
- 15-B** Quarterly Water Supply Strategy and Budget for CAW Laguna Seca Subarea: October - December 2017
- 15-C** Quarterly Water Supply Strategy and Budget Report: October - December 2017

**EXHIBIT 15-A**

**California American Water Main Distribution System  
Quarterly Water Supply Strategy and Budget: October - December 2017**

**Proposed Production Targets by Source and Projected Use in Acre-Feet**

SOURCE/USE	MONTH			YEAR-TO-DATE		
	Oct-17	Nov-17	Dec-17	Oct-16 - Aug-17	% of YTD	% of Annual Budget
<b><u>Source</u></b>						
<u>Carmel Valley Aquifer</u>						
Upper Subunits (95-10)	0	0	100	889	NA	NA
Lower Subunits (95-10)	446	281	419	4,980	95.8%	74.3%
Lower Subunits (ASR)	0	0	145	2,345	NA	NA
Upper and Lower (Table 13)	0	0	24			
<b>Total</b>	<b>446</b>	<b>281</b>	<b>688</b>			
<b>Total to count against CDO</b>	<b>446</b>	<b>281</b>	<b>688</b>			
<u>Seaside Groundwater Basin</u>						
Coastal Subareas	350	350	100	1,665	92.5%	74.0%
ASR Recovery	0	0	0	1,188	98.0%	79.2%
Sand City Desalination	25	25	25	221	80.4%	73.7%
<b>Total</b>	<b>375</b>	<b>375</b>	<b>125</b>			
<b><u>Use</u></b>						
Customer Service (95-10 & SGB)	821	656	644			
ASR Injection	0	0	145			
Customer Service (Table 13)	0	0	24			
<b>Total</b>	<b>821</b>	<b>656</b>	<b>813</b>			

Notes:

1. The annual budget period corresponds to the Water Year, which begins on October 1 and ends on September 30 of the following Calendar Year.
2. Total monthly production for "Customer Service" in CAW's main system was calculated by multiplying total annual production (10,130 AF) times the average percentage of annual production for October, November, and December 9.1%, 7.5%, and 6.7% , respectively). According to District Rule 160, the annual production total was based on the assumption that production from the Coastal Subareas of the Seaside Groundwater Basin would not exceed 1,820 AF and production from Carmel River sources would not exceed 8,310 AF in WY 2018. The average production percentages were based on monthly data for customer service from WY 2013 to 2016.
3. Anticipated production for ASR injection is based on an average diversion rate of approximately 4,500 gallons per minute (gpm) or 19.9 AF per day from CAW's sources in the Carmel River Basin. "Total" monthly CAW "Use" includes water for customer service and water for injection into the Seaside Basin.
4. The production targets for CAW's wells in the Upper Subunits of the Carmel Valley Aquifer are set at 0 unless otherwise shown, based on CAW's goal to avoid use of these wells, during low flow periods. However, production could be higher under existing State water rights and interagency operating agreements.
5. The production target for CAW's wells in the Seaside Coastal Subareas in December is based on the assumption that sufficient flow will occur in the Carmel River at the targeted levels, to support ASR injection. It is planned that Coastal Subarea pumping will not occur, or will be proportionally reduced, if ASR injection does not occur at targeted levels.
6. The production targets for CAW's wells in the Seaside Coastal Subareas are based on the need for CAW to produce its full native water allocation during WY 2018 to be in compliance with SWRCB WRO No 2016-0016.
7. It should be noted that monthly totals for Carmel Valley Aquifer sources may be different than those shown in MPWMD Rule 160, Table XV-3. These differences result from monthly target adjustments needed to be consistent with SWRCB WRO 98-04, which describes how the Cal-Am Seaside Wellfield is to be used to offset production in Carmel Valley during low-flow periods. Adjustments are also made to the Quarterly Budgets to ensure that compliance is achieved on an annual basis with MPWMD Rule 160 totals.
8. Table 13 values reflect source/use estimates based on SWRCB Permit 21330, which allows diversions from the CVA for "in Basin use" (3.25 AFD) when flows in the River exceed threshold values.
9. According to SWRCB WRO No 2016-0016, the first 600 AF diverted from the CVAA will count as diversions against the CDO limit.

**EXHIBIT 15-B**

**California American Water Laguna Seca Subarea Distribution Systems  
Quarterly Water Supply Strategy and Budget: October - December 2017**

**Proposed Production Targets by Source and Projected Use in Acre-Feet**

SOURCE/USE	MONTH			YEAR-TO-DATE		
	Oct-17	Nov-17	Dec-17	Oct-16 - Aug-17	% of YTD	% of Annual Budget
<b><u>Source</u></b>						
Seaside Groundwater Basin						
Laguna Seca Subarea	0	0	0	274	570.8%	570.8%
Other	0	0	0			
<b><u>Use</u></b>						
Customer Service	0	0	0	274		

Notes:

1. The annual budget period corresponds to the Water Year, which begins on October 1 and ends on September 30 of the following Calendar Year.
2. Total monthly production for "Customer Service" in CAW's Laguna Seca Subarea systems was calculated by multiplying total annual production (0 AF) times the average percentage of annual production October, November, and December (9.4%, 7.0%, and 6.2%, respectively). The annual production total was based on the assumption that production from the Laguna Seca Subarea of the Seaside Groundwater Basin would not exceed 0 AF. The average production percentages were based on monthly data for customer service from WY 2013 to 2017. The 0 AF annual production limit is specified in the Seaside Basin Adjudication Decision and is subject to change.
3. It should be noted that, the tri-annual reduction occurring in WY 2018 reduced the Laguna Seca allocation to 0 AF, based on recent historical use, actual monthly use will exceed the proposed monthly production target. In this context, the production targets represent the maximum monthly production that should occur so that CAW remains within its Standard Production Allocation for the Laguna Seca Subarea specified in the Seaside Decision. Accordingly, actual production beyond these production targets will be subject to replenishment assessment by the Seaside Basin Watermaster.
4. "Other" production sources refer to supplies transferred to Laguna Seca Subarea customers from CAW's Carmel River sources or water rights acquired from other producers in the Seaside Basin to produce additional water. For example, under emergency conditions, water can be transferred from sources that serve customers in CAW's main system, via an existing interconnection, to customers in CAW's Ryan Ranch system.

## **EXHIBIT 15-C**

### **Quarterly Water Supply Strategy and Budget Report California American Water Main Water Distribution System: October - December 2017**

#### **1. Management Objectives**

The Monterey Peninsula Water Management District (District) desires to maximize the long-term production potential and protect the environmental quality of the Carmel River and Seaside Groundwater Basins. In addition, the District desires to maximize the amount of water that can be diverted from the Carmel River Basin and injected into the Seaside Groundwater Basin while complying with the instream flow requirements recommended by the National Marine Fisheries Service (NMFS) to protect the Carmel River steelhead population. Similarly, during the low-flow season, the District desires to recover most or all of the water that was previously injected into the Seaside Groundwater Basin, as well as a seasonally balanced amount of California American Water's (Cal-Am) full allocation of Seaside native groundwater. By meeting customer demand with as much as feasible of these two groundwater sources, Cal-Am will be able to maximally reduce its diversion from its Carmel River sources during the low-flow season. To accomplish these goals, a water supply strategy and budget for production within the Cal-Am Main and Laguna Seca Subarea water distribution systems is reviewed quarterly to determine the optimal strategy for operations, given the current hydrologic and system conditions.

#### **2. Quarterly Water Supply Strategy: October - December 2017**

On September 12, 2017, staff from the District, Cal-Am, the California Department of Fish and Wildlife (CDFW), and National Marine Fisheries Service (NMFS) met and discussed the proposed water supply strategy and related topics for the remainder of September 2017, and the October through December 2017 period. Currently, flow in the Carmel River is regulated by releases from storage at Los Padres Reservoir, though there was 9.3 cubic feet per second (cfs) of surface flow coming into the reservoir on September 1, 2017. This is one of the five highest September inflows since data was first collected in 1987. The intent under the original 2017 CDFW/Cal-Am/District Low Flow MOA was to sustain 15 cfs or more of flow the Below Los Padres Dam Gage at River Mile (RM) 24.7 through November 2017, and return to un-supplemented flows, i.e., run-of-the-river conditions, estimated then to potentially be as much as 17.4 cfs.

Due to the removal of San Clemente Dam as a part of the San Clemente Dam Reroute Project (SCDRRP), the interagency signatories to the 2017 Low Flow MOA agreed to permanently shift the flow target compliance point from its historic location at the MPWMD Sleepy Hollow Weir Gage (SHW) at RM 17.6 to the MPWMD Below Los Padres Gage (BLP) at RM 24.7. Flow in the Carmel River is continuous from the headwaters to Lagoon (RM ~0.5). Rainfall during Water Year (WY) 2017 to date through the end of August at the past San Clemente Dam site in the upper watershed has totaled 32.2 inches or 153% of the long-term average at this site. Unimpaired runoff at San Clemente Dam for WY 2017 to date through the end of August has totaled approximately 195,579 acre-feet (AF) or about 292% of the long-term average (i.e., median) to-date, and 291% of the long-term annual average for this site. The flow conditions through August 2017 categorize as an "Extremely Wet" Water Year.

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**Carmel River Basin:** Given these conditions, it was agreed that it would be appropriate to use historic “Wet” inflow conditions of the most recent similar Water Year Type in 2010, less 8%, to assess Cal-Am’s operations during the July through September 2017 period. Thereafter, through December 2017 we conservatively used the median inflows for a “Normal” Water Year Type for the following quarter. We will reassess Cal-Am’s operations and set monthly production targets for Cal-Am’s systems from January through March 2018 at the December Quarterly Water Budget meeting.

To meet customer demand, Cal-Am would operate its wells in the Lower Carmel Valley in a downstream-to-upstream sequence, as needed. For the quarterly budget, it was agreed that Cal-Am would produce approximately 0 AF of groundwater for this quarter’s months of October through December 2017, from its wells in the Upper Carmel Valley. These amounts are consistent with the interagency Low Flow Season MOA and Cal-Am management’s intent to minimize production in the Upper Carmel Valley at all times. However, production could legally be higher under Cal-Am’s existing State water rights, and the interagency Low Flow Season MOA, if the requisite minimum 20 CFS flow trigger is consistently exceeded for consecutive days.

Cal-Am will also be able to produce 24 AF in December for its customers under its recently acquired Table 13 Water Rights, identified for future approval in SWRCB Water Rights Order 95-10.

In addition, it was agreed that Cal-Am would produce approximately 446, 281, and 418 AF of groundwater from its wells in the Lower Carmel Valley during October, November, and December 2017, respectively.

Lastly, it was assumed that 145 AF of the total of 688 AF water planned to be diverted from the Carmel River Basin in December would be injected into the Seaside Groundwater, if flows are sufficient to allow diversions, since the diversion season for the Aquifer Storage and Recovery (ASR) projects ended May 31, and resumes on December 1, 2017. The remainder of the long-term average diversions of 920 AF and 1050 AF per WY for ASR Phases 1 and 2, respectively, will be addressed in the Quarterly Water Budgets for January to May, 2017. If the minimum bypass flows defined in the joint MPWMD/Cal-Am Water Right for ASR Phase 1 and 2 are sufficient for any significant length of time after December 1, diversion to storage may begin.

**Table 1** shows actual releases to date and projected monthly releases below Los Padres and San Clemente Reservoirs for the September through December 2017 period.

**Seaside Groundwater Basin:** It was also agreed that Cal-Am would produce 350, 350, and 100 AF of Seaside native groundwater in October, November, and December 2017, respectively, in order to better avoid having any unutilized carry-over water at the end of WY 2018. A total of 1,488 AF of the 2,345 AF of water injected for storage in WY 2017 by ASR Phases 1 and 2 is planned for recovered by the end of the last quarter of WY 2017, and the remaining 857 AF will

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### **Quarterly Water Supply Strategy and Budget Report California American Water Main Water Distribution System: October - December 2017**

be banked for recovery in a future “Below Normal, Dry, or Critically Dry” Water Year Type, as agreed to in future Quarterly Water Budgets with CDFW and NMFS. The total amount of ASR storage recovered in WY 2018 will depend on the aforementioned remainder amount from WY 2017, combined with any future ability to divert to storage for ASR in WY 2018. There is also a goal of producing an additional 25 AF of treated brackish groundwater from the Sand City Desalination Plant in each of these three months. If the Sand City Desalination Plant cannot make its monthly production targets, any of that amount of water that is needed to meet customer demand will be produced from a combination of Cal-Am wells in Seaside or the Lower Subunits of the Carmel Valley Aquifer.

It was also agreed that Cal-Am should produce only 0 AF per month of groundwater from its wells in the Laguna Seca Subarea of the Seaside Basin for customers in the Ryan Ranch, Bishop, and Hidden Hills systems during October, November, and December 2017, respectively. It is recognized that, based on recent historical use, Cal-Am’s actual production from the Laguna Seca Subarea during this period will have to exceed the proposed monthly targets, which are based on Cal-Am’s allocation specified in the Seaside Basin Adjudication Decision. For example, in the October, November, and December 2016 period, Cal-Am actually produced 29, 19, and 19 AF from the Laguna Seca Subarea to meet customer demand in the Ryan Ranch, Bishop, and Hidden Hills systems. In this context, the production targets represent the maximum monthly production that should occur so that Cal-Am remains within its adjudicated allocation for the Laguna Seca Subarea. Accordingly, actual production beyond these production targets will be subject to a replenishment assessment by the Seaside Basin Watermaster.

**Table 1 of Exhibit 15-C**

Table 1 [Version 1g] - 9/12/17																	
2017 Low Flow Memorandum of Agreement & Quarterly Water Budget																	
Los Padres Reservoir: Release Schedule (All Values in Acre-Feet, except Cubic-Feet-per-Second as indicated)																	
Assuming July-September Flows at 92% of WY's 2010-2011, Then Median Normal WYT Flows for October-December, and Drawdown No Lower Than 1000' Elevation = 378 AF (New 2017 Tables)																	
Month Represents Water Year Type of:	Wet	Normal	BelowNormal	ExtWet	ExtWet	AboveNormal	AboveNormal	ExtWet	ExtWet	ExtWet	ExtWet	AboveNormal	Normal	Normal	Normal		WY 2017
	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17		
<b>Los Padres Reservoir</b>																	
Estimated Inflow	518	804	2,760	41,973	46,035	13,060	9,837	4,461	2,300	1,196	735	480	333	752	2,324	124,159	
Evaporation	20	5	2	16	16	34	21	42	50	46	49	44	19	11	2	345	
Outflow as @ BLP Gage																	
Spillage	0	0	1,233	41,035	45,186	12,104	8,923	3,497	1,357	0	0	0	0	0	85	113,335	
Combined Release (Ladder/Trap/980')	445	549	922	922	833	922	893	922	893	1150	908	832	860	832	982	10,191	
Actual Mean Daily in CFS @ BLP Gage	7.2	8.9	35.0	682.4	748.4	211.8	159.6	71.9	37.8	18.7	14.8	14.0	14.0	14.0	17.4		
Targeted Min. Mean Daily Flow in CFS	7	10	15	n/a	n/a	n/a	n/a	n/a	n/a	n/a	15.0	14.0	14.0	14.0	14.0		
Total Storage																	
Beginning of Month	869	922	1,172	1,775	1,775	1,775	1,775	1,775	1,775	1,667	1,667	1,445	1,049	503	412		
End of Month	922	1,172	1,775	1,775	1,775	1,775	1,775	1,775	1,775	1,667	1,445	1,049	503	412	1,667		
<b>Between Reservoirs</b>																	
Net Inflow from Tributaries	116	278	653	26,966	29,138	7,305	3,586	2,271	970	450	242	49	18	84	581	72,024	
All Estimated Losses (Div. + E.T.)	0	0	0	0	0	0	0	0	0	0	58	53	37	21	16	111	
<b>Sleepy Hollow Weir</b>																	
Total Estimated Release	561	827	2,808	68,923	75,157	20,331	13,402	6,690	3,220	1,600	1,092	828	841	895	1,632	195,439	
Estimated Mean Daily Flow in CFS	9.1	13.9	45.7	1120.9	1353.3	330.7	225.2	108.8	54.1	26.0	17.8	13.9	13.7	15.0	26.5		
Notes:																	
1. The minimum pool requirement at Los Padres Reservoir is 105 acre-feet at elevation 980 ft.																	
2. Projected inflows for the July - September 2017 period are based on actual 2010 flows reduced 8%.																	
3. Projected inflows for the October - December 2017 period are derived from the median flows @ Sleepy Hollow Weir for a Normal WYT based on 1902-2015 data.																	
4. Inflows are apportioned Above and Below LPD, as actually occurred in July - September 2010, then 95/5% in October, 90/10% in November, and 80/20% in December.																	
5. Estimated evaporation from LPR in July-December are actual measured values from 2010.																	
6. Releases and diversions are consistent with terms of the 2001 and 2006 Conservation Agreements between the NMFS and Cal-Am and with the conditions in SWRCB Order Nos. 95-10, 98-04, 2002-0002, and 2016-0016.																	
7. Numbers in <b>Bold type</b> are final reported numbers, and those in <i>Italics</i> are future estimates.																	
8. LPR storage values based on preliminary results from the 2017 Bathymetric Survey of LPR, beginning July 1, 2017; max capacity @ 1039.78' = 1,667 AF																	