



Public Hearing Item 24:

Consider Adoption of October – December 2013 Quarterly Water Supply Strategy and Budget for California American Water

September 16, 2013, Regular Meeting
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CALIFORNIA AMERICAN WATER QUARTERLY WATER SUPPLY BUDGET: October - December 2013

- Applies to California American Water (Cal-Am) reservoir and well operations in the Carmel River and Seaside Groundwater Basins.
- Consistent with SWRCB Orders 95-10, 98-04, 2002-02, and 2009-0060, the NMFS Conservation and Settlement Agreements, DWR San Clemente Reservoir Drawdown Project, and Seaside Groundwater Basin adjudication decision.
- Stored a total of 295 AF in Water Projects 1 & 2 (ASR) for Water Year 2013, during December 2012 – January 2013, which is *currently being recovered* in Water Year 2013, during August and September 2013.
- Utilized all of the remaining 218 AF of water banked in the Seaside Groundwater Basin during the initial 9 years of pre-project testing for Water Project 1.

CALIFORNIA AMERICAN WATER QUARTERLY WATER SUPPLY BUDGET: October - December 2013

- Includes the third set of reductions in Cal-Am's diversions from the Carmel River specified in SWRCB Order WR 2009-0060. Next reductions due in Water Year 2015.
- Continues the second set of reductions in Cal-Am's diversions from Seaside Groundwater Basin made in Water Year 2012 as specified in the adjudication, through formal action taken by the Water Master Board. Next reductions due in Water Year 2015.
- Assumes mean monthly inflow conditions characteristic of a Critically Dry Water Year Type through December 2013.
- Assumes full utilization of all legally available native Seaside Coastal groundwater during Water Year 2014.
- Developed cooperatively by staff from MPWMD, Cal-Am, California Department of Fish and Wildlife (CDFW), and the National Marine Fisheries Service (NMFS).

CAL-AM QUARTERLY WATER SUPPLY BUDGET: MAIN SYSTEM PRODUCTION TARGETS

October - December 2013

Proposed Production Targets by Source in Acre-Feet

<u>SOURCE/USE</u>	MONTH		
	13-Oct	13-Nov	13-Dec
<u>Source</u>			
Carmel Valley Aquifer			
Upper Subunits	0	0	0
Lower Subunits (95-10)	605	626	649
Lower Subunits (ASR)	0	0	145
Seaside Groundwater Basin			
Coastal Subareas	500	300	169
ASR Recovery	0	0	0
Sand City Desalination	25	25	25
Total	1130	951	988
<u>Use</u>			
Customer Service	1,130	951	843
Phase 1 ASR Injection	0	0	145
Total	1130	951	988

CAL-AM QUARTERLY WATER SUPPLY BUDGET: LAGUNA SECA SUBAREA SYSTEMS PRODUCTION TARGETS

October - December 2013

Proposed Production Targets in Acre-Feet

<u>SOURCE/USE</u>	MONTH		
	13-Oct	13-Nov	13-Dec
<u>Source</u>			
Seaside Groundwater Basin			
Laguna Seca Subarea	14	11	8
Other	0	0	0
Total	14	11	8
<u>Use</u>			
Customer Service	14	11	8

CALIFORNIA AMERICAN WATER QUARTERLY WATER SUPPLY BUDGET: October - December 2013

Recommendation

- Adopt proposed water supply strategy and budget for Cal-Am's Main and Laguna Seca water distribution systems for the first quarter of Water Year 2014, the October - December 2013 period.

UPDATED 2013 LOW FLOW SEASON TARGETS

EXHIBIT 24C, TABLE 1 [Version 6, 5th Revised Update]

2013 Low Flow Memorandum of Agreement & Quarterly Water Budget

Carmel River Reservoirs: Diversion and Release Schedule (All Values in Acre-Feet, except as indicated)

Assuming Critically Dry Water Year Inflow Conditions [Sept.-Dec. 2013] & LPR Drawdown to 996.3' Elevation = 337 AF [actual Sept./Oct. 2007 inflows, & 87.5% exceedance inflows for Nov./Dec.]

Month Represents Water Year Type of:	Normal	Dry	Wet	Below N.	Crit. D.	Crit. D.	Crit. D.	Crit. D.	Crit. D.	Crit. D.	Crit. D.	Crit. D.	Crit. D.	Crit. D.	Crit. D.	WY 2013
	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-12	Sep-13	Oct-13	Nov-13	Dec-13	
Los Padres Reservoir																
Inflow	186	523	10,433	4,703	1,895	1,434	1,003	632	341	144	84	33	41	195	478	21,411
Outflow																
Evaporation	18	6	2	18	13	30	31	55	54	58	47	44	19	11	5	376
Spillage	0	0	8,962	4,070	1,307	789	426	0	0	0	0	0	0	0	0	15,554
Release (Fish Ladder)	322	292	615	615	575	615	595	587	381	376	350	355	277	201	473	5,677
Release (Outlet)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Release (Notch)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Storage																
Beginning of Month	806	652	877	1,731	1,731	1,731	1,731	1,682	1,672	1,578	1,288	975	609	354	337	
End of Month	652	877	1,731	1,731	1,731	1,731	1,682	1,672	1,578	1,288	975	609	354	337	337	
Between Reservoirs																
Inflow	0	134	2,494	1,544	812	771	456	168	63	0	0	0	0	50	138	6,442
Outflow																
Evapotranspiration	4	21	16	21	20	37	53	61	63	63	81	101	34	21	16	540
Private Usage	5	2	2	2	2	2	5	7	8	8	23	18	5	2	2	85
San Clemente Reservoir																
Inflow	313	403	12,052	6,206	2,672	2,136	1,419	687	373	305	246	236	238	228	593	27,048
Outflow																
Evaporation	4	0	2	4	2	5	7	15	13	13	11	9	4	3	4	85
Spillage	0	0	11,311	5,526	2,037	1,455	758	0	43	0	0	0	0	0	0	21,130
Diversion (Filter Plant)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Release (Valve)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Release (Six Ports)	249	341	0	0	0	0	0	0	323	230	174	167	173	165	527	1,484
Release (Fish Ladder)	0	0	615	615	575	615	595	611	0	0	0	0	0	0	0	3,625
Leakage	61	59	61	61	58	61	59	61	59	61	61	59	61	59	61	725
Total Storage																
Beginning of Month	72	71	73	137	137	137	137	137	137	71	71	71	71	71	71	
End of Month	71	73	137	137	137	137	137	137	71	71	71	71	71	71	71	
Total Release	310	400	11,987	6,202	2,670	2,131	1,412	672	425	292	235	227	234	225	589	26,965
Mean Daily Release in cfs	5.0	6.7	195.0	100.9	46.4	34.7	23.7	10.9	7.1	4.7	3.8	3.8	3.8	3.8	9.6	
Mean Daily Diversion in cfs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Mean Daily Diversion in cfs (Russell Wells)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Notes:

- The minimum pool requirements at Los Padres and San Clemente Reservoirs are 105 acre-feet at elevation 980 ft and 71 acre-feet at elevation 515 ft, respectively.
- Projected inflows for the November - December 2013 period are based on the expectation that unimpaired flows at San Clemente Dam will represent median flows for a "Critically Dry" Water Year Type or 87.5% exceedance values for reconstructed unimpaired monthly historical flows (WY 1902-2012). September - October 2007 inflows were used as estimates for 2013.
- Projected inflow to San Clemente Reservoir is distributed 80% above Los Padres Dam and 20% between Los Padres and San Clemente Dams, except in the driest summer/fall months when tributary flows are set at zero.
- Estimated evaporation from LPR/SCR is based on average monthly reservoir surface area and gross monthly evaporation rates developed by the US Army Corps of Engineers (1981).
- 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 2009-0060.
- Numbers in **Bold** type are final reported numbers, and those in *Italics* are future estimates.