

## Agenda Number 10

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**MEETING DATE:** June 7, 2018

**AGENDA ITEM:** Report on 2018 CAP Water Operations

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**LINKAGE TO STRATEGIC PLAN, POLICY, STATUTE OR GUIDING PRINCIPLE:**

- CAWCD 2016 Board of Directors Strategic Plan
  - Water Supply—Optimize Reliability and Sustainability of CAP Water Supply

**PREVIOUS BOARD ACTION/ACTIVITY:** None

**ISSUE SUMMARY/DESCRIPTION:**

This report describes CAP's Colorado River diversions, water deliveries and Lake Pleasant operations through May 2018. For the most part, operations in 2018 have proceeded as planned. However, CAP curtailed Colorado River diversions for a brief period in March to address water quality concerns resulting from the US Army Corps of Engineers' high flow release from Alamo Dam on the Bill Williams River. During that period, CAP released water from Lake Pleasant to meet water user demands. The modified operations lasted about a week but will have some lingering impacts on pumping throughout the year.

**Colorado River Diversions**

On December 20, 2017, the US Bureau of Reclamation approved CAP's diversion of up to 1,574,166 acre-feet from the Colorado River in 2018. Reclamation also acknowledged that CAP is contractually entitled to divert the balance of Arizona's 2.8 million acre-feet basic apportionment not consumed by higher priority users. CAP is also planning to divert 13,500 acre-feet of Nevada unused apportionment for interstate storage in Arizona in 2018 pursuant to an interstate storage agreement between the Arizona Water Banking Authority and the Southern Nevada Water Authority.

The table below compares CAP's actual diversions through April and forecasted diversions for the remainder of the year to the 2018 Annual Operating Plan (AOP). CAP coordinates with Reclamation's Boulder Canyon Operations Office on a monthly and

real-time basis to coordinate releases from Lake Mead and to forecast CAP diversions for the remainder of the year. The planned diversions below do not yet reflect recent forbearance agreements in support of the Pilot System Conservation Program.

<b>2018 CAP Colorado River Planned and Actual Diversions</b>			
<b>2018</b>	<b>Scheduled Diversion from AOP (AF)</b>	<b>Actual Diversion (AF)</b>	<b>Updated Forecasted Diversion (AF)</b>
<b>January</b>	89,000	90,163	
<b>February</b>	110,000	109,197	
<b>March</b>	181,000	138,939	
<b>April</b>	174,000	168,400	
<b>May</b>	186,000		181,000
<b>June</b>	73,000		85,000
<b>July</b>	74,000		74,000
<b>August</b>	33,000		33,000
<b>September</b>	151,000		160,000
<b>October</b>	162,000		175,000
<b>November</b>	157,000		175,000
<b>December</b>	154,000		154,000
<b>Total</b>	<b>1,544,000</b>		<b>1,543,699</b>

March diversions were lower than planned due to Alamo Dam releases. This planned pumping will be made up later in the year but will have an impact on Lake Pleasant elevations as discussed below.

### **2018 CAP Colorado River Forbearance**

The table below represents all currently approved forbearance activities for 2018 contributions to Lake Mead. The volume identified for CAP Excess Water is an estimate; the final volume will depend on actual uses by higher priority users in Arizona in 2018.

<b>2018 Forbearance Volumes</b>	
<b>Program Name</b>	<b>Forbearance Volume (AF)</b>
CAP Ag Forbearance 3	44,663
CAP Ag Forbearance 4	4,673
CAP Excess Water	99,669
PSCP - Bullhead City	2,200
PSCP - Tohono O'odham Phase 3 ( <i>In Process</i> )	11,050
PSCP - CRIT Phase 2	7,435
PSCP - CRIT Phase 3 ( <i>In Process</i> )	1,424
<b>Total</b>	<b>171,114</b>

## 2018 CAP Water Deliveries

The table below compares CAP's actual deliveries to date to the approved water delivery schedules included in the 2018 AOP. To date there have been no requests to remarket scheduled water.

<b>2018 CAP Water Deliveries</b>		
<b>Category</b>	<b>2018 Scheduled (AF)</b>	<b>Actual Deliveries Though April (AF)</b>
<b>M&amp;I</b>	587,324	139,364
<b>Federal</b>	583,007	152,798
<b>Ag Pool</b>	250,664	70,887
<b>Other Excess</b>		
CAGRDR Replenishment Obligation	35,000	10,377
AWBA	38,000	12,190
BOR	5,000	0
CAGRDR Replenishment Reserve	0	0
<b>Total</b>	<b>1,498,995</b>	<b>385,616</b>

## Maintenance/Capital Project Work

Planned maintenance work in 2018 includes CAP's normal half plant outage for the western portion of the system in the summer and full outage for southern plants in October to November. Key work that will take place in 2018 includes inspection of the Agua Fria Siphon, completion of electrical tie-ins at the new Hassayampa Tap, discharge manifold coating at the Hassayampa Pumping Plant, Unit 1 breaker replacement at Mark Wilmer Pumping Plant, and bus disconnect replacements at Bouse Hills Pumping Plant.

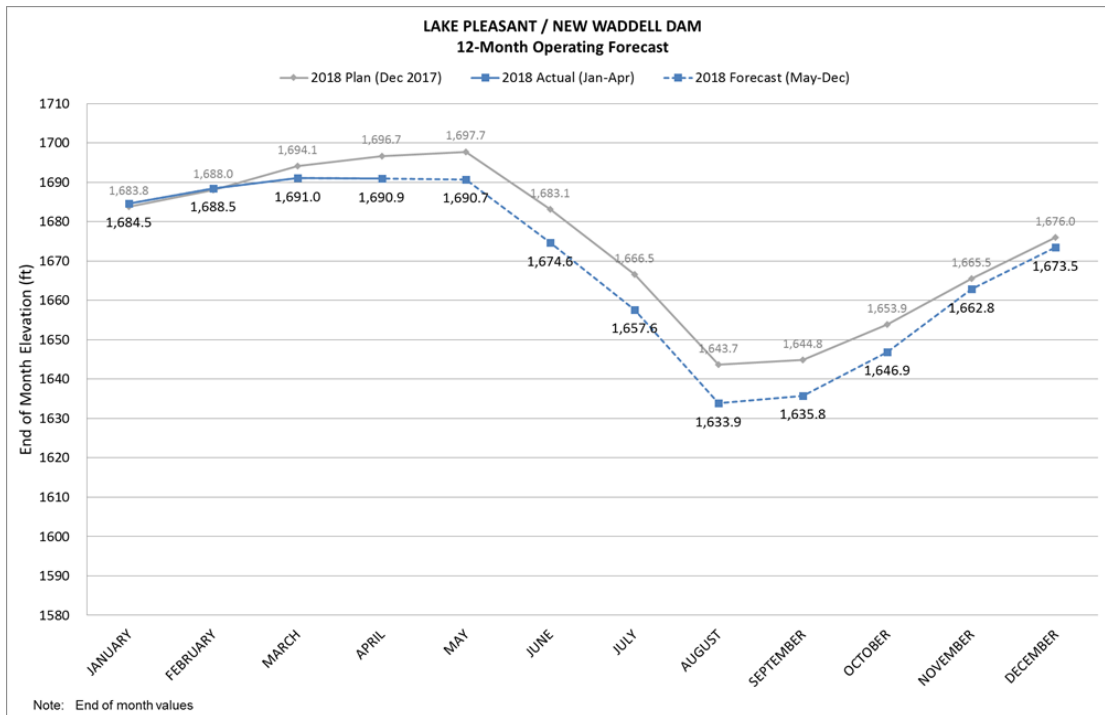
## Lake Pleasant

Lake Pleasant serves as CAP's system storage reservoir. CAP uses Lake Pleasant to manage Colorado River diversions, water deliveries, ensure system reliability, accomplish system maintenance and manage energy costs. Generally, CAP pumps water from the Colorado River to fill Lake Pleasant in fall and winter when energy and water demands are lower, then releases water from Lake Pleasant in the summer to meet water user demands.

In March, the US Army Corps of Engineers implemented a high-flow release from Alamo Dam on the Bill Williams River, which caused a significant spike in turbidity at the inlet to the Mark Wilmer Pumping Plant. To avoid adverse water quality impacts to municipal treatment plants, CAP curtailed pumping from the river and instead released water from

Lake Pleasant for approximately one week. The date and duration of the Corps's release were not known to CAP when developing the AOP. The Colorado River water not diverted in March during the Alamo release will be pumped later in the year.

The graphic below compares the projected Lake Pleasant elevation from the 2018 AOP to the actual and anticipated elevation for the remainder of the year.



**SCHEDULED FOR BOARD ACTION: None**