Update on Water Surplus and Drought Management

Water Planning and Stewardship Committee
Item 6a
January 10, 2022
Outline

End-of-Year 2021 Storage Balance Update

- 2022 Supply/Demand Outlook
- Hydrologic Conditions Update
End of Year Storage Balances

Million Acre-Feet

Emergency Storage

Dry-Year Storage

2000: 1.1
2001: 1.1
2002: 1.4
2003: 1.5
2004: 1.4
2005: 1.8
2006: 2.2
2007: 1.8
2008: 1.1
2009: 1.0
2010: 1.7
2011: 2.4
2012: 2.7
2013: 2.3
2014: 1.2
2015: 0.9
2016: 1.3
2017: 2.5
2018: 2.5
2019: 3.1
2020: 3.2
2021: 2.5

* Estimate – May change based on supply/demand conditions
2021 end of year balances

Update:

- Higher priority water users increase consumption
- Lake Mead ICS net take in 2021
- End-of-year total storage balance: 2.54 MAF
Preparations for 2022

WSDM Actions

- Execute actions and strategies to address annual supply/demand imbalances
- Withdraw from storage – within and outside of service area
- Purchase transfer supplies
- Increased water use efficiency messaging
Preparations for 2022, cont’d

Drought Actions

- Develop and implement specific actions targeted to address unique drought conditions
- SWP Dependent Areas

- Operational/Institutional modifications
  - Operational Cost Offset Program
  - Zero blends to preserve SWP supplies

- Distribution modifications
  - DVL to Lakeview and Mills
  - Greg Avenue Pump Station

- Demand Management
  - Emergency Drought Declaration
  - Outreach: Increased coordination with PIOs, custom ads, Point of Purchase Program, targeted social media

- Supply Development
  - Increased returns from Arvin Edison Exchange
  - Partnership with SDCWA – groundwater purchase
  - Partnership with SBMVWD - exchanges
  - IRWD storage draw
Preparations for 2022, cont’d

Coordination with the Department of Water Resources

- Advocate for Metropolitan and SWP Contractor interests
- Worked with DWR to exercise a contract provision to allow delivery of Human Health & Safety (HH&S) water in the face of a zero percent Table A Allocation
- Developed a HH&S assessment methodology
- Support of Temporary Use Change Petition (TUCP) to allow relaxation of regulatory requirements should dry conditions persist
- Delivery of Perris Flexible supply from Castaic
DWR will deliver water in 2022

Table A Allocation remains at zero percent

- DWR allocating water supplies based on unmet minimum Human Health & Safety (HH&S) Demands

- DWR expects to deliver 340 TAF for HH&S to SWP contractors who identified a need
Regional Supply/Demand Balance:

Demand Estimate: 1.75 MAF
Supply Estimate: 1.00 MAF
Estimated Gap: 0.75 MAF

Sufficient storage and Colorado River and local supplies to satisfy majority of regional demand

Preliminary 2022 Supply/Demand Assessment
HH&S needs identified for SWP Dependent Area

- Insufficient supplies at a zero percent SWP Table A Allocation to meet “SWP Dependent Area” full demand in 2022
- Metropolitan’s total HH&S need is ~270 TAF after factoring in other available supplies and remaining available storage
East and West Branch Combined, includes system water for water quality
Additional actions under development include new supply programs and demand management measures including additional conservation measures for SWP Dependent Areas imposed through California Water Code Sections 350 and 375.
Metropolitan seeks to avoid or defer use of HH&S

- Metropolitan is coordinating with impacted member agencies and identifying and implementing additional actions to develop new or stretch out existing supplies.

- The goal is to avoid the need to take delivery of HH&S water.

- Areas receiving HH&S water are expected to limit consumer water use to critical needs only (e.g., no watering of ornamental landscape).
Any Table A Allocation Defers HH&S Initiation

East and West Branch Combined, includes system water for water quality

<table>
<thead>
<tr>
<th>Zero Percent SWP Table A Allocation</th>
<th>5% SWP Table A Allocation</th>
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<tr>
<td><strong>Month</strong></td>
<td><strong>WSDM Supplies</strong></td>
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Components contributing towards a SWP Table A Allocation

- Forecasted Runoff
- Delta Exports
- Storage Levels
Recent storms boosts statewide snowpack to half the annual peak accumulation
Conditions as of 1/4/2022

Northern Sierra
Truckee, CA
148% Of normal for this date

Central Sierra
UC Berkeley Snow Lab
145% Of normal for this date

Southern Sierra
Mammoth Mountain
157% Of normal for this date
Northern Sierra snowpack above normal

As of 1/4/2022

148% normal for this date

16.5 inches

Water Content (in.)

Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep

Normal  Current WY  Last WY
Northern Sierra Precipitation: 8-Station Index
As of 1/4/2022

Current: 30.9 in.
Average: 53.2 in.
Last Year: 94.7 in.
Driest: 17.1 in.
Lake Oroville
As of 1/3/2022

~216 TAF needed before DWR can start allocating supplies from Oroville storage

Achieved through a combination of actual storage increases and forecasted runoff from snowpack.
San Luis Reservoir – SWP Share
As of 1/3/2022

~190 TAF above “obligated water level” that can be used for a SWP Allocation
Upper Colorado River Basin snowpack above normal
As of 1/4/2022

128% normal for this date

8.2 inches

Water Content (in.)

Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep

Normal, Current WY, Last WY
Additional precipitation in the forecast
Jan 6 - Jan 13
Improved conditions may support Table A allocation

SWP storage is improving

- Oroville storage of 1.3 MAF (72% of average) insufficient to support Table A allocation at this time
- ~190 TAF of storage in SWP share of San Luis to support 2022 allocation

Allocation studies lag current hydrologic conditions by a month

- Runoff projections have improved since initial allocation study
- Expect additional improvements to runoff forecast in February study
Summary

Mid-December storms brought much needed precipitation that support a Table A Allocation

Metropolitan and Member Agency actions are reducing the 2022 supply/demand gap for the “SWP Dependent Area” but more is needed
Metropolitan is preparing to take additional actions to conserve water supplies for the greatest public benefit should drought conditions persist