Successes and Challenges on the Colorado River

April 26, 2017

Southern California Water Dialogue

Bill Hasencamp
Metropolitan Water District
CRA Deliveries into Service Area

<table>
<thead>
<tr>
<th>Year</th>
<th>Thousand Acre-Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>900</td>
</tr>
<tr>
<td>2014</td>
<td>1200</td>
</tr>
<tr>
<td>2015</td>
<td>1200</td>
</tr>
<tr>
<td>2016</td>
<td>1000</td>
</tr>
<tr>
<td>2017</td>
<td>0</td>
</tr>
</tbody>
</table>
Colorado River Apportionments (Million acre-feet)

Upper Basin States
- Wyoming: 1.04, 0.49
- Lee's Ferry: 1.71, 0.80
- Arizona: 2.8, 2.4
- California: 4.4, 5.1

Lower Basin States
- Nevada: 0.3, 0.2
- Utah: 1.8
- Colorado: 3.86, 1.8
- New Mexico: 0.84, 0.39
- Mexico: 1.71

Deliveries Prior to 2000
- Nevada: 2.5
- California: 1.5
California Priority System (1931)

1. Palo Verde
2. Yuma Project
3. (a) Imperial & Coachella
   (b) Palo Verde
4. Metropolitan 550 TAF

Total Basic Apportionment 4.4 MAF

5. Metropolitan 662 TAF
6. Imperial, Coachella, Palo Verde 300 TAF
Quantification Settlement Agreement
Quantified Water Budgets

<table>
<thead>
<tr>
<th>Source</th>
<th>maf</th>
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<tbody>
<tr>
<td>Yuma Project</td>
<td>0.42 (Average)</td>
</tr>
<tr>
<td>PVID</td>
<td></td>
</tr>
<tr>
<td>IID</td>
<td>3.10</td>
</tr>
<tr>
<td>CVWD</td>
<td>0.33</td>
</tr>
<tr>
<td>MWD *</td>
<td>0.55</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4.40</strong></td>
</tr>
</tbody>
</table>

*Amount fluctuates based on PVID/Yuma Project use, unused IID and CVWD water*
California 4.4 Plan

Agricultural Conservation Measures with IID
California 4.4 Plan

Line the All-American, Coachella Canals
California 4.4 Plan

Incentivize PVID Farmers to Not Grow Crops
Water Sharing Agreement with Nevada
Storage Program in Lake Mead (ICS)
MWD Storage Balance (ICS) in Lake Mead

End of Calendar Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Thousand Acre-Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>40</td>
</tr>
<tr>
<td>2007</td>
<td>41</td>
</tr>
<tr>
<td>2008</td>
<td>94</td>
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<tr>
<td>2009</td>
<td>146</td>
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<tr>
<td>2010</td>
<td>256</td>
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<tr>
<td>2011</td>
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<tr>
<td>2012</td>
<td>580</td>
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<tr>
<td>2013</td>
<td>474</td>
</tr>
<tr>
<td>2014</td>
<td>151</td>
</tr>
<tr>
<td>2015</td>
<td>80</td>
</tr>
<tr>
<td>2016</td>
<td>50</td>
</tr>
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2015 Colorado River Aqueduct Supplies

1.18 MAF Net Diversion

- ICS Delivery
- SNWA Exchange
- IID Exchange/Unused
- LCWSP
- PVID Fallowing Program
- Canal Lining to MWD
- Canal Lining to SDCWA
- IID-SDCWA Transfer
- IID-MWD Conservation

Adjusted Basic Apportionment
BREAKING NEWS

RECORD LOW WATER LEVELS
LAKE MEAD

Largest U.S. Water Reservoir
Record Low

LAKE MEAD WATER LEVEL
CURRENTLY AT RECORD LOW
• Currently at 1,074 feet
Basin States Developing Drought Contingency Plans

Arizona Water News
Colorado River water users make progress toward a drought contingency plan
Proposed Drought Contingency Plan: Additional Flexibility Important to MWD

Proposal for CA to reduce diversions at lower Lake Mead levels includes:

- Allowing agencies to store and recover ICS during shortages
- Allowing CA to exchange water with other states during shortages
- Allowing binational exchanges during shortages
Projected MWD ICS Storage Balance

End of Calendar Year

Thousand Acre-Feet

- 2006: 40
- 2007: 41
- 2008: 94
- 2009: 146
- 2010: 256
- 2011: 435
- 2012: 580
- 2013: 474
- 2014: 151
- 2015: 80
- 2016: 50
- 2017: 450
- 2018: 650
California Need: Salton Sea Solution
QSA Provided Time to Restore Salton Sea

- Formed in 1905
  - Sustained by ag drainage
- 50% saltier than ocean
  - Salinity increase 1%/yr
  - Frequent fish kills
- Sea protected from IID-SDCWA
  - Transfer impacts for 15 years
    - IID to deliver 800 TAF of “mitigation water” to Salton Sea through 2017
    - Provided time for state to develop long-term solution
15 Year Period Nearing End

- 2008 state issued Draft EIR
  - **Preferred Alternative:** $9 billion cost

- 2014: IID petitioned SWRCB

- 2015-16: SWRCB Workshops

- 2016: State adds $80 million to state budget for Sea

- Sept 2016: Fed-State MOU

- January 2017: DOI Secretarial Directive
New Efforts to reduce demand: Bard and PVID
“The best way to predict your future is to create it.”

- Abraham Lincoln
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