PUBLIC WORKSHOP TO RECEIVE COMMENTS ON DROUGHT CONTINGENCY PLAN AND TEMPORARY URGENCY CHANGE PETITION & RELATED ORDER

FEBRUARY 18, 2015
PRESENTATION OVERVIEW

1. Lessons from 2014
2. Drought Contingency Plan
3. Temporary Urgency Change Petition (TUCP)
4. Required TUCP Findings
5. Delta Cross Channel (DCC) Gate Closure
6. San Joaquin River Flows (SJR)
7. Delta Outflows
8. Exports
9. Sacramento River Temperature Issues
10. Benefits of TUCP Approval
11. Next Steps
Lessons from 2014- Impacts on People

• Direct costs to ag totaled $1.5 billion
  – 3% of state’s total ag value
• Total economic costs of drought $2.2 billion
• Loss of 17,100 jobs
  – 3.8% of farm employment
• 428,000 acres out of production (5%) in Central Valley, Central Coast & Southern California
• Central Valley, Tulare Basin hardest hit
  – $800 mil in lost revenue & $447 mil added pumping cost
Lessons from 2014-
Impacts on the Ecosystem

• 95% winter-run mortality due to high temp
• High spring-run mortality due to high temp
• Delta smelt at lowest level on record
• Longfin smelt at 2nd lowest level on record
• Striped bass, American shad, threadfin
  shad population indices at near record lows
• Potential impacts to commercial and
  recreational fishing, recreation, etc.
Water Year 2014
Delta Outflow, Exports, & Salinity Control (taf)

- Hydraulic Barrier: 3,017; 50%
- Actual Exports: 1,860; 31%
- Additional Theoretical Exports: 747; 12%
- Remaining Outflow: 449; 7%

Sum = 6.07 million acre feet
Drought Contingency Plan

• Prepared by Bureau of Reclamation (Reclamation) & Department of Water Resources (DWR)
• Required by Board Order 2014-0029 on petitions for reconsideration & objections
• Received by Board on Jan. 15, 2015
• Purpose: Identify and justify future operations during drought
2015 TUCP Request

• Submitted January 23 to modify Decision 1641 (D-1641) Water Right Terms

• Requested changes for Feb. & March:
  • DCC Gate Closures
  • SJR Flows
  • Delta Outflows
  • Export Limits
  • Potential future requests
Required TUCP Findings

• Urgent need to make the changes
• No injury to other lawful user of water
• No unreasonable effect on fish, wildlife, or other instream beneficial uses
• Changes are in the public interest
DCC Gates

- D-1641 requires gates to be closed Feb.-March
- TUCP proposed real-time flexible operations
- Same as 2014 TUCP
- Reduces water needed for salinity control when DCC Gates open
- Also increases risk of salmon moving into the central Delta when DCC Gates open
SJR Flows

- D-1641 requires 710 cfs or 1,140 cfs
  - Higher flows required when “X2” required to be at or west of Chipps Island per Table 4
- No request for Feb. and March in 2014
- TUCP requests 500 cfs Feb. and March
- Request made to reduce storage releases
  - New Melones at 25% of cap. and 41% of avg.
- Increases risks to out-migrating salmon
**Delta Outflows**

- D-1641 requires outflow of 7,100 cfs or salinity of 2.64 mmhos/cm at Collinsville (81 km)
- Table 4 requires number of days of higher outflow or salinity of 2.64 further downstream based on previous month’s 8-River Index
  - Salinity of 2.64 at Chipps Island (74 km) or outflow of 11,400
  - Salinity of 2.64 at Port Chicago (65 km) or outflow of 29,200
- 1 Chipps day required in Feb. (correction from Order)
  - No water savings in Feb. due to storms
- 10-20 Chipps days expected in March
  - Change could conserve 85-170 thousand acre-feet (TAF)
Delta Outflows cont.

- D-1641 outflows provide reasonable protection for estuarine resources
  - Based on consistent relationships with outflow and abundance of diverse species assemblages
- TUCP requests 4,000 cfs outflow
- Conditions are expected to have an adverse effect on estuarine resources, similar to last year
Exports

• D-1641 allows exports of 35-45% in Feb. and exports of 35% in March
  – Assumes other D-1641 requirements met
• 2014 TUCP
  – Outflow = 4,000 to 7,099 exports up to 1,500
  – Outflow = 7,100 or more exports of natural and abandoned flows up to D-1641
  – Exception for transfers and SJR pulse flows
Exports cont.

• 2015 TUCP includes same requests as last year with added tiered export level
  – Outflow = 5,500 to 7,099 exports up to 3,500

• Tiered exports not approved
  – Would reduce outflows on 1 to 1 basis at already low flows and may increase entrainment risk for already impacted species

• Non-Project post-1914 transfers exempted
  – considering proposals for modifications
### Water Supply Costs of Not Approving “Tiered” Exports TAF

<table>
<thead>
<tr>
<th></th>
<th>Feb 3 to Feb 5 (Actual)</th>
<th>Feb 6 to Feb 18</th>
<th>Feb 18 to Feb 28</th>
<th>March</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Estimate</td>
<td>5.1</td>
<td>0</td>
<td>0</td>
<td>69</td>
</tr>
<tr>
<td>High Estimate</td>
<td>5.1</td>
<td>0</td>
<td>17</td>
<td>84</td>
</tr>
</tbody>
</table>

The amount would be less if there is another significant storm event.

Theoretical minimum = 0 af/day
Theoretical maximum = 3,200 af/day
Sacramento River Temperature

- Perform WY 2014 hindcast modeling
  - Identify discrepancies: modeled vs. observed
  - Final Report to Board & Sac Temp Group (STG) by Mar. 4
- Perform WY 2015 forecast modeling and prepare Temperature Management Plan
  - Plans for Reclamation preferred, fishery agencies preferred, and optimal ops for temp control
  - Draft Report to STG by Mar 15, 2015
  - Final Report to Board by Jun 1, 2015
- Meet weekly with STG, as needed
- Report monthly to Board during drought
Benefits of TUCP Approval

• Multiple benefits to non-consumptive uses
  – Reservoir storage (supply, recreation, fish)
  – Temperature control (fish, fishing)
  – Downstream flows (recreation, fish etc.)
Benefits of TUCP Approval cont.

• Multiple benefits to consumptive uses
• Benefits to those with the lowest water right priority still receiving water
  – New Melones: SEWD, OID/SSJID
  – Shasta/Folsom: CVP exporters, Friant contractors, refuges, potentially settlement contractors
  – Oroville: SWP exporters, potentially settlement contractors
  – Water Markets- transfers, exchanges
Comments on TUCP

• More than 50 comment letters, objections, petitions for reconsideration

• Commenters include:
  – Elected representatives
  – The general public
  – Water agencies
  – Non-governmental organizations
  – Other agencies
Next Steps

• Recommend prepare an order for Board consideration in March
• Assess the need for a hearing
• Expect another TUCP request will be filed for April and subsequent months for additional modifications
Additional Information

• State Water Board Drought Webpage:
  – Covers State Water Board Drought Year Water Actions
Future Updates

- To receive future updates sign up to receive emails online at:
  
  http://www.waterboards.ca.gov/resources/email_subscriptions/
  
  - Select “State Water Resources Control Board”
  - Enter email address and full name
  - Under Categories, select “Water Rights”
  - Select box for “Drought Updates”
  - Click “Subscribe” button at top