Water Management Technical Feedback Meeting

April 17, 2009
Visalia, CA

Agenda

• Schedule
• Mediation Outcomes
• Recapture and Recirculation Approach
• Next Meeting
Mediation Outcomes

- What is required from Reclamation?
- What decisions are internal to Friant?
- What are the recommendations to Reclamation?
- What decisions require Reclamation approval?

16(a) Recapture and Recirculation

- Purpose: describe technical support for the recapture and recirculation of Interim and Restoration flows

- Objectives:
  - Describe how the system may respond to the release of Restoration Flows;
  - Identify key assumptions that control modeling results; and
  - Identify key assumptions that control opportunities for recapture and recirculation.
Technical Approach

• Today: Scientific exploration of potential system responses, through modeling, to inform recapture and recirculation strategies.
  – Hypothetical scenarios test different outcomes and processes.
  – Results identify trends resulting from different choices rather than absolute numbers.
  – Assumptions do not reflect policy decisions.

• Future: identify policies and mechanisms to develop specific numbers and impacts where required. (Not Today)

Required releases include Restoration, snowmelt evacuation, and rain flood water.
16(b) deliveries change flood releases

Mendota Pool loses some Friant supply, but captures additional Kings River and DMC deliveries increase.
Additional flow below the Merced River closely matches additional Delta inflow.

- No negative water supply impacts are seen in the East Side Tributaries.
- Without change to VAMP, some year to year differences in targets and contributions would occur.
- New Melones shows small water supply benefits due to water quality savings at Goodwin.

Delta Modeling Components

- Sources of Inflow
  - North of Delta Inflow
  - Existing San Joaquin Inflow
  - Restoration Flows
- Sources of Outflow
  - Delta Outflow
  - Delta Exports
  - Recapture
Assumptions for Restoration Flows in the Delta

- Major Assumptions
  - 16(b) utilization by Friant
  - South of Delta demand pattern
- Minor Assumptions
  - VAMP coordination
  - Flexible Flow implementation
  - Others?

Restoration Flows Compared to Existing Delta Outflows
Intermediate Summary: Water Balance

- Change in Delta inflow is less than change in releases from Friant Dam
- CalSim does not show losses to Restoration Flows on the San Joaquin below Merced River
- Restoration Flows change Delta conditions, resulting in increased Exports and Delta Outflow
**Water Rights Petition**

- Reclamation will petition to deliver flows from Friant Dam to Friant Districts through the Delta.
- The State Water Resources Control Board will require us to demonstrate:
  - Presence of additional water;
  - No harm to 3rd Parties; and
  - No harm to fish or wildlife.
- The burden of proof requires analysis similar to a water transfer and supported by agreements with 3rd parties.

**How do exports relate to Restoration?**

- Hypothesis 1: Restoration water flows directly to exports.
- Hypothesis 2: North of Delta water becomes exports rather than delta outflow.
Increasing Delta Outflow requirements “excludes” pumping “Restoration contributions”.

Changes in Average Monthly SJRR Flows, Effects on Delta Outflow

Exports increase even without pumping the volume of “Restoration contribution”.

Changes in Average Monthly SJRR Flows, Effects on Delta Outflow

Preliminary Draft, Subject to Revision
Intermediate Summary: Export Mechanism

- Changes in Exports correlate with the timing of Restoration Flows, but are less than Restoration Flows
- Increased exports occur as a result of meeting improved flow and water quality targets.

Support for a Petition

- Presence of Water: demonstrated through CalSim model results
- Fish and Wildlife: regulatory agency consultations
- No Harm to 3rd Parties: agreement with State and Federal Agencies and water supply contractors
**Export Capacity, SJRRP Critical-High Years**

Critical High Year Avg Monthly Export Capacity and Unmet Demand for Alt A

- Exportable SJRRP Flows
- Unmet Friant Demand
- Available Export Capacity

**Export Capacity, SJRRP Dry Years**

Dry Year Avg Monthly Export Capacity and Unmet Demand for Alt A

- Exportable SJRRP Flows
- Unmet Friant Demand
- Available Export Capacity
### Export Capacity, SJRRP Normal-Dry Years

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### Export Capacity, SJRRP Normal-Wet Years

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Intermediate Summary of Results

- Modeling results do not show capacity to export additional water during the most restricted months.
- Availability of flow in the Delta corresponds to demand patterns, except in wet years.
Old & Middle River Flow Criteria

- Operations Criteria and Plan (OCAP)
  - Operating rules for the Central Valley and State Water Projects
  - New requirements include flow and turbidity standards for Old & Middle Rivers (OMR)

- Planning Model Sensitivity Studies on OCAP
  
  (-750) cfs, most restrictive planning assumption → used for results here
  
  (-1500) cfs, less restrictive planning assumption

OMR Criteria Reduce Exports when Restoration Flows are Highest
SJRRP May Increase Allowable Delta Exports under Old & Middle River Criteria

16(a) Requirements

- PEIS/R: compliance on flows.
- Agreements:
  - Resource Agencies (DWR, Reclamation);
  - South of Delta State Water Contractors;
  - South of Delta Federal Water Contractors;
  - Friant; and
  - NRDC.
- Reclamation will collaborate with Friant to initiate discussions.
Feedback from Friant

- Mediation requirements from Reclamation.
- Comments on 16(a) technical approach and results.
- Friant viewpoint on 3rd party discussions.

Next Meeting

- Date: May 8th
- Agenda
  - Reclamation Response to Mediation Recommendations
  - Restoration Flow Guidelines
  - Other?