NMFS – Reclamation Stakeholder Workshop #2
Shasta RPA Draft Proposed Amendment
May 2, 2017
Introductions
Workshop Objectives

Learn about, discuss, and provide input on:

1. Temperature management planning for the 2017 Sacramento River temperature management season

2. System-wide analyses of draft proposed amendment (issued January 19, 2017) to the Reasonable and Prudent Alternative of the 2009 NMFS Biological Opinion for the long-term operation of the Central Valley and State Water Projects related to Shasta Reservoir operations
Workshop Agenda

• Introductions
• Meeting Purpose
• Overview of 2017 Temperature Management Planning
• Overview of System-Wide Evaluations of Draft Proposed Shasta RPA
• Discussion Q&A
Proposed Ground Rules

• Participate!
• Be respectful
• Help us stay on track
• Speak into microphone
• Take comments in batches – in room then on phone
• Cell phones off/silent
2017 Sacramento River Temperature Management Planning
Sacramento River Temperature Management Planning

- Sacramento River Temperature Management required under:
  - SWRCB Order 90-5
    - Meet temperatures of 56° F DAT at compliance location
  - NMFS 2009/2011 BiOp, Action I.2.4
    - Development of annual plan
    - 56° F DAT at compliance location between Balls Ferry and Bend Bridge May 15 – Oct 31
2017 Planning

• Compliance
  – 56°F DAT
  – Location between Balls Ferry - Bend Bridge
  – May 15 – Oct 31

• Target (Operational Study)
  – 53°F DAT as surrogate to 55°F 7DADM
  – CCR Gage as surrogate to most downstream redd
    • Subject to further discussion and analysis if most downstream redd ends up significantly farther downstream
  – May 15/onset of spawning through emergence
    • Subject to further discussion and analysis if late emergence has potential to cause impacts to future cold water pool and/or significant fall run dewatering risk
  – Offramp if significant impacts
2017 Planning (continued)

- **Modeling**
  - 52° F DAT from Keswick Dam
  - High likelihood of achieving compliance and target
- **Past performance of Keswick Dam release temperatures**
  - 2006
  - 2011
Discussion
System-wide Evaluation of Draft Proposed Amendment
Storage and Flow Targets/Restrictions

- **Spring/Fall Storage Targets**
  - Vary by water year type
    - Spring storage: ranges between 3.5 to 4.2 MAF
    - Fall storage: ranges between 1.9 to 3.2 MAF

- **Spring Flow Restrictions**
  - Vary by water year type
    - April flow: ranges between 4,000 to 8,000 cfs
    - May flow: ranges between 7,500 to 12,000 cfs
    - (June through October forecast flow run scenario)

- **Action I.2.1**
- **Action I.2.3**
  - Actions I.2.3.A-C
Analyses – Storage and Flow Targets/Restrictions

- CalSim analysis
  - Feasibility of targets/restrictions
    - Independent
    - Together
  - Impacts/changes to other parts of the CVP/SWP system required to meet targets/restrictions
Temperature Compliance
(location/value/metric)

- 55° F 7DADM and/or 53° F DAT at CCR (May 15->)
  - Action I.2.3.A-C
  - Action I.2.4

- 61° F 7DADM and/or 58° F DAT at Jellys Ferry (March 1 – May 15)
  - Action I.2.3
Analyses – Temperature Compliance (location/value/metric)

- HEC-5Q analysis
  - Feasibility/frequency
    - Existing
    - In conjunction with storage/flow targets/restrictions
  - Potential impacts of meeting the requirements (requires additional formulation)
- Data from 2016/2017
Analyses – Biological Impacts

• SacPas, SAIL, MAST
  – Potential biological impacts on other species residing in other components of system
    • Sacramento/American salmon, steelhead, Delta smelt, others
Biological Objectives

• Temperature-dependent mortality objectives
  – Varies by water year type
    • 3% to 30%
  – Action I.2.1
Analyses – Biological Objectives

• Analyses into feasibility based on outputs of CalSim/HEC-5Q model runs
Analyses – Others

• Wilkins Slough Operations
  – Action I.4
  – Discussions with SRSC/North-of-Delta water users
  – Potential screening-level review for other impacts (and further analyses)

• Others?
Discussion
Next Steps

• Notes and Responses to Questions
• Future Workshops
  – June 22 – Status/Updates
  – September 21 – Status/Results