JOINT RESERVOIR COMMITTEE AND AUTHORITY BOARD MEETING

DECEMBER 18, 2020

Agenda Item 3.3:
Preliminary Operations Analysis and Results

Sites

Operations Modeling Update

- Last modeling status update in September:
  - Provided overview of refinements and improvements to the model
- Focus since September update:
  - Continued model refinement and running iterations to test model and diversion criteria
    - Latest iteration is “Iteration 2”
    - Shasta and Oroville integration
    - Conveyance through state and federal facilities
  - Baseline development and incorporation (not fully incorporated in Iteration 2, but now complete)
- All analysis to date has been conducted on Alternative 1 (preferred alternative)
- Additional diversion criteria development and analysis

Diversion Criteria

- Modeling and fisheries teams performed additional analysis, preliminary project effects
- Re-evaluation of “Scenario B” included in Value Planning
  - Travel time of 2 to 7 days from diversion points to Freeport and Delta outflow
  - Downstream criteria ties Sites to all of Sacramento Valley and Central Valley (NDOI) water management decisions
  - Likely not operable in real-time and may have unintended impacts to species at the diversion locations
- Refocus on upstream, Sacramento River based diversion criteria
  - Taking goals of avoidance and minimization of effects to entire system (including Delta) and translating to upstream criteria that achieve these downstream outcomes
  - No intent to reduce aquatic protections – seeking equally protective criteria that are implementable day to day

Preliminary Draft Effects Analysis

- Preliminary effects analysis of temperature and salmonid survival show limited effects with some possible salmonid survival improvements
- No significant impacts have been shown with model results to date
- Additional impacts analysis (reservoir temperature, habitat suitability) will be conducted as part of Revised Draft EIR/Supplemental Draft EIS

Modeling Results – Value Planning Comparison

Year Type	Frequency	Value Planning* (TAF per year)	Amendment 2 Modeling (TAF per year)
Wet	32%	85-115	80-90
Above Normal	15%	255-285	180-190
Below Normal	17%	245-275	185-215
Dry	22%	355-385	355-385
Critically Dry	15%	205-235	285-325
Long-Term Average	100%	213-243	205-225

*Value Planning Appraisal recommended report values less 30 TAF per year to account for uncertainty.

Takeaways:

- Results are within Value Planning uncertainty
- Averages go down, but not in dry and critically dry years
- Future, realized values will depend on the way you use your storage

Preliminary Results – Value Planning Comparison

Release Amount (TAF)	243 (VP7)	225	216	206
Without WIFIA $/AF (2020$)	661	710	737	771
With WIFIA $/AF (2020$)	611	656	682	712

Caveats:

- Assumes capital costs from Value Planning
- Will be able to better assess costs and assist members in optimizing performance after moving to storage-based participation

Next Steps

- Incorporate refined criteria for pulse protections
- Run full analysis for EIR/EIS with all alternatives
  - Complete early January
- Run analysis for CWC Feasibility Study
  - Preferred alternative only
  - 2030 and 2070 climate conditions
- Storage Policy and Storage-Based Participation

Sites

QUESTIONS?

BULLPEN