RECLAMATION

Managing Water in the West

Coordinated Long-term Operation of CVP and SWP EIS:

Overview of Administrative Draft EIS

June 24, 2015

U.S. Department of the Interior
Bureau of Reclamation

Meeting Guidelines

- Question & Answer
  - First - we will ask for comments from attendees in the room
  - Second - we will ask for comments from attendees who notify us about a question on Live Meeting
  - Third - we will ask for comments from attendees on the telephone
- Respect for presenters and meeting participants
- Please help us to stay on topic and on schedule

Agenda

- Introductions
- Update on Recent Court Decisions
- Study Area and Study Period
- Description of Alternatives
- Environmental Consequences Approach
- Summary of Preliminary Results
- Organization of ADEIS
- Document Access

Delta Smelt Consolidated Cases

- Ninth Circuit Court of Appeals
  - Opinion issued March 13, 2014
  - Mandate issued September 16, 2014
- District Court
  - Revised Final Order issued October 1, 2014
- U.S. Supreme Court
  - Two Petitions for Writ of Certiorari submitted
  - Certiorari denied January 12, 2015

Salmonid Consolidated Cases

- Ninth Circuit Court of Appeals
  - Opinion issued December 22, 2014
  - Judgment entered in favor of Federal Defendants and Defendant-Intervenors on all remaining claims
  - Mandate issued on February 17, 2015
- District Court
  - Revised Final Order issued May 5, 2015

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Study Period and Study Area

- Study Period
  - Year 2030
  - Climate change and sea level rise at Year 2030 for all analyses
- Extent of Study Area
  - CVP and SWP service areas
  - Rivers downstream of CVP and SWP reservoirs
  - Reservoirs in CVP and SWP service areas that store CVP and/or SWP water

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Purpose of the Action

- Continue the operation of the CVP, in coordination with the SWP, to maximize water availability for the authorized purposes, in a manner that:
  - Is similar to historic operational parameters with certain modifications;
  - Is consistent with Federal Reclamation law; other Federal laws; Federal permits and licenses and; State of California water rights, permits, and licenses; and
  - Enables Reclamation and DWR to satisfy their contractual obligations to the fullest extent possible.

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Description of Alternatives

- No Action Alternative (NAA)
- Second Basis of Comparison (SBC)
- Alternatives 1 – 5
- Alternatives compared to NAA and SBC
- Qualitative analysis of water transfers in all alternatives and SBC
- Qualitative analysis of Cumulative Effects for all alternatives

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Included in All Alternatives

- Spawning gravel augmentation in Sacramento Valley per CVPIA
- Whiskeytown temperature control devices
- Battle Creek restoration
- Anadromous Fish Screen Program per CVPIA
- Restoration of up to 20,000 acres floodplain habitat in Yolo Bypass; and up to 10,000 acres wetland habitat in Cache Slough and Suisun Marsh
  - Including improvements in Yolo Bypass and Cache Slough complex
- Lower American River Flow Management Standard
- San Joaquin River Restoration Program

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No Action Alternative

- Continuation of existing policy and management direction at Year 2030
- CVP and SWP operations with full implementation of the 2008 FWS and 2009 NMFS biological opinions (BOs) including Reasonable and Prudent Alternative (RPA) actions

Second Basis of Comparison

- Reason for SBC
  - Scoping comments identified the need for a basis of comparison that would be “without” the RPAs
- Definition of SBC
  - CVP and SWP operations without most RPA actions
  - Includes actions that are:
    - Constructed (e.g., Red Bluff Pumping Plant, Battle Creek)
    - Implemented (e.g., Suisun Marsh Habitat Management, Preservation, and Restoration Plan)
    - Substantial progress (e.g., Yolo Bypass Salmonid Habitat Restoration and Fish Passage)

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Alternative 1

- Same as SBC
- Stakeholders requested this alternative because the SBC was not a NEPA alternative, and could not be selected as a Preferred Alternative

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Alternative 2

- CVP and SWP operations identical to NAA
- Does not include RPA actions that require construction of facilities that are not defined
  - Fish passage at Shasta, Folsom, and New Melones dams
  - Temperature management at Folsom Lake
  - Ecosystem restoration along the Stanislaus River
  - Improvements at Tracy and Skinner collection facilities

Alternative 3

- Operational Actions
  - Similar to Second Basis of Comparison
  - Old and Middle River Criteria (OMR) modified from NAA
- Non-Operational Actions
  - Predation Control
    - Increase Black Bass and Striped Bass bag limits
    - Pikeminnow sport reward program
  - Trap and Haul Fish Passage
  - Trap at Head of Old River and barge to Chipps Island
  - Ocean Harvest Limits Revisions
    - Consistent with Viable Salmonid Population standards for natural origin Central Valley Chinook Salmon

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Alternative 4

- Operational Actions
  - Identical to Second Basis of Comparison
- Non-Operational Actions
  - Predation Control – same as Alternative 3
  - Trap and Haul Fish Passage – same as Alternative 3
  - Ocean Harvest Limits Revisions
    - Salmon harvest restrictions to reduce by-catch of winter-run and spring-run Chinook Salmon to less than 10 percent of age-3 cohort in all years

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Alternative 5

- Operational Actions
  - Similar to NAA
  - Positive OMR in April and May
  - Delta Cross Channel Operations per Pilot Study
- Non-Operational Actions
  - Same as NAA

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Major Differences Between Alternatives and NAA

Action	NAA	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
FWS 1-3: OMR	Included	Not Included	Same as NAA	Modified	Not Included	Modified
FWS 4: Fall X2	Included	Not Included	Same as NAA	Not Included	Not Included	Same as NAA
NMFS 4.2.1: I:E Ratio	Included	Not Included	Same as NAA	Not Included	Not Included	Same as NAA
NMFS 4.1.2: DCC Gates	Included	Not Included	Same as NAA	Not Included	Not Included	Modified
NMFS 3.1.2: Goodwin Minimum Flows	Included	Not Included	Same as NAA	Modified	Not Included	Same as NAA
Spring Delta Outflow	Included as D1641	Same as NAA	Same as NAA	Same as NAA	Same as NAA	Modified

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OMR Criteria

NAA & Alt 2		Alt 1 & 4	Alt 3	Alt 5
2008 FWS RPA: Dec 1 - Jun 30	Action 1 - pre-spawning adult delta smelt, first flush: OMR no more negative than -2000 cfs	None	Jan 1 until larval delta smelt present: OMR -3500 to -5000 cfs	Dec 1 - Mar 31 & Jun 1 – Jun 30 Same as NAA Apr 1 – May 31: Positive OMR
	Action 2 - pre-spawning adult delta smelt: OMR -1250 to -5000 cfs		When larval delta smelt present: OMR no more negative than -5000 cfs (until Jun 15, or when QWEST is greater than 12,000cfs, or when south Delta turbidity is below a threshold level)	
	Action 3 larval delta smelt: OMR -1250 to -5000 cfs			
2009 NMFS RPA: Jan 1 - Jun 15	OMR -2500 to -5000 cfs			

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New Melones/Vernalis Operations

	NAA & Alt 2	Alts 1 & 4	Alt 3	Alt 5
Vernalis Base Flow	D-1641	D-1641	OID 2012 Proposal	D-1641
Vernalis Salinity	D-1641	D-1641	OID 2012 Proposal	D-1641
Fish Flows	2009 NMFS RPA	1997 NMIPO	OID 2012 Proposal	2009 NMFS RPA
Vernalis Pulse Flows	2009 NMFS RPA	1997 NMIPO	OID 2012 Proposal	D-1641
Dissolved Oxygen	D-1641 @ Ripon	D-1641 @ Ripon	D-1641 @ Orange Blossom Bridge	D-1641 @ Ripon

NMIPO = New Melones Interim Plan of Operations
OID 2012 Proposal = from 9/21/12 email from Oakdale Irrigation District

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Other Operational Criteria

Criteria	NAA & Alt 2	Alts 1, 3, & 4	Alt 5
Delta Cross Channel	2009 NMFS RPA	D-1641	Delta Cross Channel Pilot Study Criteria
Delta Export Restrictions	D-1641 & 2009 NMFS RPA	D-1641	D-1641 & 2009 NMFS RPA

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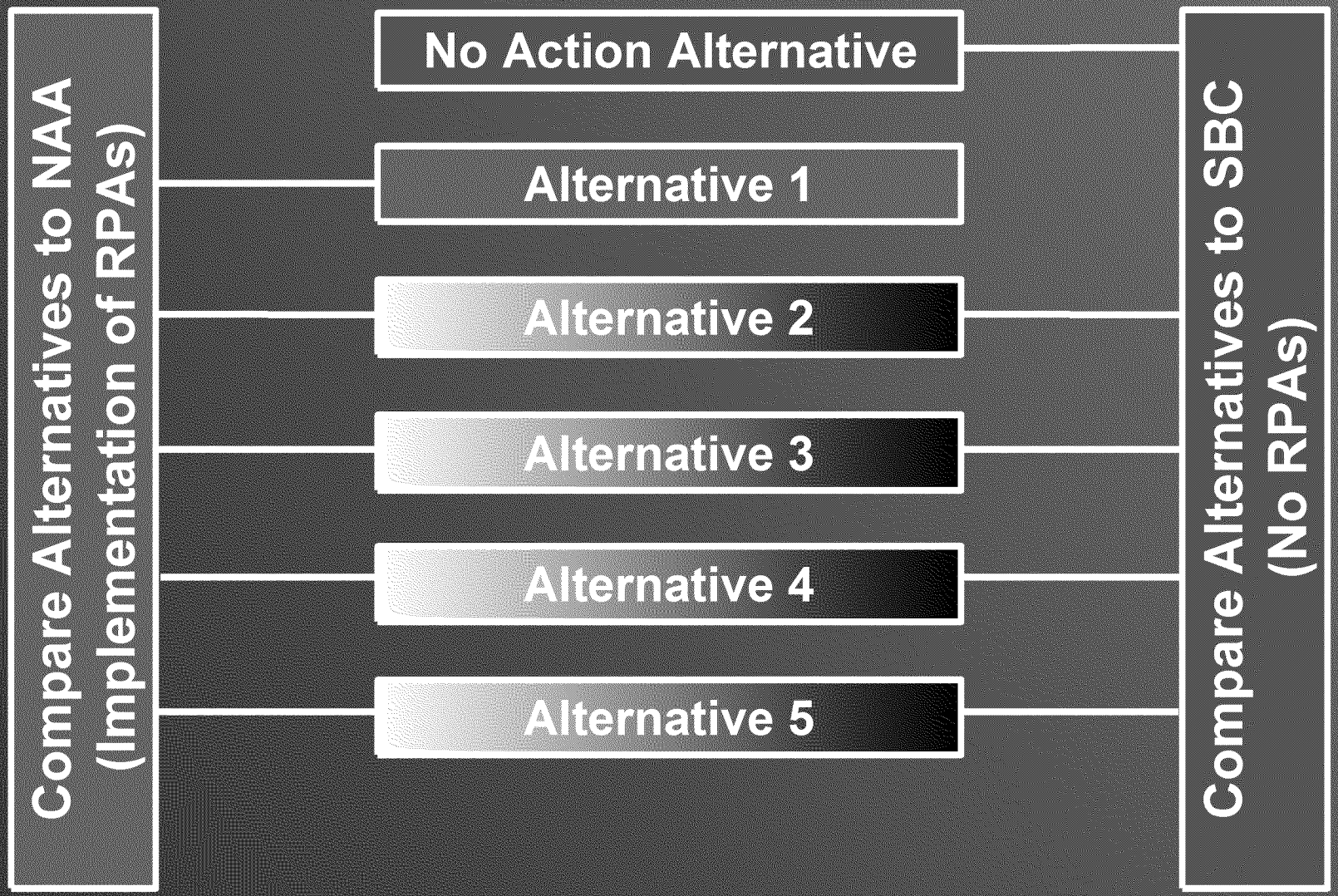
Environmental Consequences



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Summary of Preliminary Results

	NAA	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Storage: Shasta, Oroville, Folsom, San Luis	Low	Highest	Low	High	Highest	Lowest
Storage: New Melones	Low	High	Low	Highest	High	Lowest
Benefits to salmonids of fish passage	High	Not Incl.	Not Incl.	Not Incl.	Not Incl.	High
Delta Outflow	High	Lowest	High	Low	Lowest	Highest
Water-related recreation and visual opportunities	Low	Highest	Low	High	Highest	Lowest

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Summary of Preliminary Results

	NAA	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
OMR positive flows	High	Lowest	High	Low	Lowest	Highest
CVP and SWP water deliveries	Low	Highest	Low	High	Highest	Lowest
Additional groundwater pumping	High	Lowest	High	Low	Lowest	Highest
Groundwater elevation in western SJ Valley	Declines	Rises	Declines	Rises	Rises	Declines
Irrigated agricultural	Similar	Similar	Similar	Similar	Similar	Similar
Municipal and industrial water supplies	Similar	Similar	Similar	Similar	Similar	Similar

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Comparison of Temperature Results for Drier Water Years

	NAA	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Spring temperatures: Sacramento River	High	Low	High	Low	Low	Highest
Summer temperatures: Sacramento River	Highest	Low	Highest	Low	Low	High
Fall temperatures: Sacramento River	High	Low	High	Low	Low	High
Spring temperatures in Feather River	High	Low	High	High	Low	High
Summer temperatures in Feather River	High	Low	High	High	Low	High
Fall temperatures in Feather River	Low	High	Low	High	High	Low

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Comparison of Temperature Results for Drier Water Years

	NAA	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Spring temperatures in American River	High	Low	High	Highest	Low	High
Summer temperatures in American River	Highest	Lowest	Highest	Low	Lowest	Highest
Fall temperatures in American River	Low	High	Low	High	High	Low

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Organization of ADEIS

- Chapter 1 – Introduction
- Chapter 2 – Purpose and Need
- Chapter 3 – Description of Alternatives
  - Appendix 3A - NAA: CVP and SWP Operations
- Chapter 4 – Approach to Environmental Analysis
  - Appendix 4A - Federal, State and Local Regulations
- Chapter 5 – Surface Water Resources and Water Supplies
  - Appendices 5A and 5B - CalSim II, DSM2, CWEST model documentation and results; CVP and SWP water users' portfolios
- Chapter 6 – Surface Water Quality
  - Appendices 6A – 6D - TMDL information; Temperature, Mercury, and Selenium model documentation and results

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Organization of ADEIS

- Chapter 7 – Groundwater Resources and Groundwater Quality
  - Appendix 7A - CVHM model documentation and results
- Chapter 8 – Energy Resources
  - Appendices 8A – Power model documentation
- Chapter 9 – Aquatic Resources
  - Appendices 9A – 9H - Status of Species; List of Species; Egg Mortality, SALMOD, IOS, Through Delta Survival model documentation and results
- Chapter 10 – Terrestrial Biological Resources
  - Appendices 10A - Status of Species; List of Species
- Chapter 11 – Geology and Soils Resources
- Chapter 12 – Agricultural Resources
  - Appendix 12A: SWAP model documentation and results

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Organization of ADEIS

- Chapter 13 – Land Use
- Chapter 14 – Visual Resources
- Chapter 15 – Recreation Resources
- Chapter 16 – Air Quality and Greenhouse Gas Emissions
- Chapter 17 – Cultural Resources
- Chapter 18 – Public Health
- Chapter 19 – Socioeconomics
  - Appendix 19A and 19 B – CWEST model documentation and results, IMPLAN model documentation and results
- Chapter 20 – Indian Trust Assets
- Chapter 21 – Environmental Justice

Organization of ADEIS

- Chapter 22 – Other NEPA Requirements
- Chapter 23 – Consultation and Coordination
  - Appendix 23A – Scoping Report
- Chapter 24 – Distribution of Draft EIS
- Chapter 25 – List of Preparers

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Organization of Resource Chapters

- Introduction
- Regulatory Environment and Compliance Requirements
- Affected Environment
  - Usually categorized by regions
- Environmental Consequences
  - Potential Mechanisms for Change
  - Assessment Methods to Analyze Change
  - Bases of Comparison (NAA and SBC)
  - Evaluation of Alternatives
    - NAA compared to SBC (by regions)
    - Alternatives 1 - 5 compared to NAA and SBC (by regions)
    - Summary of Effects
    - Cumulative Effects (by alternative)
    - Potential Mitigation Measures

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Overall EIS Schedule

- Administrative DEIS — June 29, 2015
- Comments Due on ADEIS — July 13, 2015
- Public DEIS — July 31, 2015
- Public Meetings
  - Sacramento — September 9
  - Chico — September 10
  - Los Banos — September 15
  - Irvine — September 17
- Public Comments Due on DEIS — September 29, 2015
- Final EIS — Late October 2015
- ROD (per court order) — December 1, 2015

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