

Central Valley Project NEPA

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CVP Authorized Purposes

- Water Supply
- Flood Control
- Power Generation
- Fish and Wildlife
- Recreation (for some reservoirs)

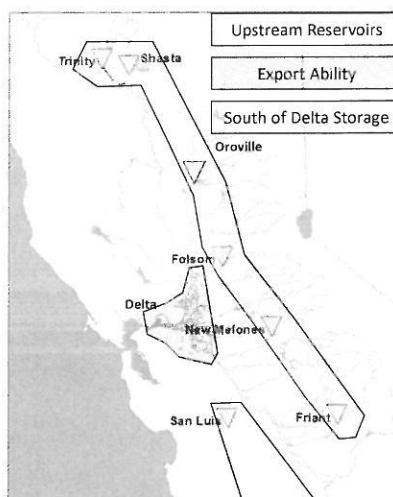
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CVP Operation for Water Supply

- Capture winter storm events for delivery during the dry summers (Storage to re-regulate precipitation and snowmelt)
- Move excess water in the north to the high demand areas of the Central Valley and southern CA (Export ability)
- Store excess water from wetter years for delivery in drier years (Storage from one year to the next)

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Key Existing Components



- Upstream of Delta Storage
 - Major CVP Reservoirs: Shasta, Trinity, Folsom, New Melones and Millerton
 - Major SWP Reservoir: Oroville
- Export Ability from North to South
 - Natural conveyance channels: Old and Middle Rivers
 - Barriers and gates to improve conveyance
- South of Delta Export Storage
 - San Luis Reservoir
 - SWP Reservoirs: Diamond Valley, etc
 - Local Groundwater Banking projects

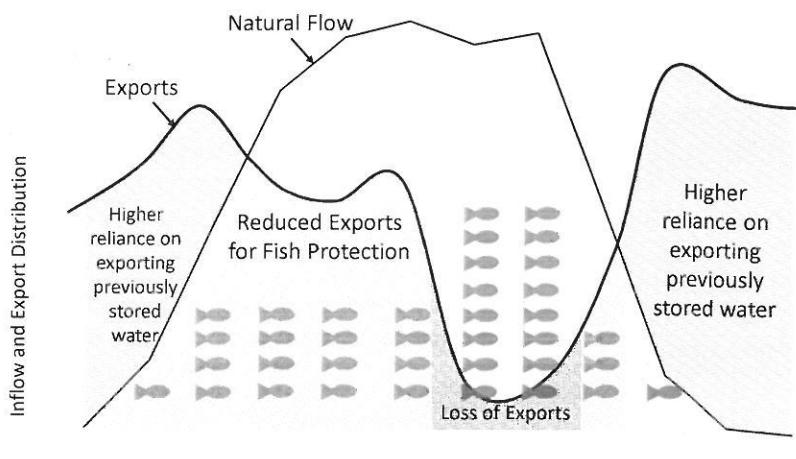
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Key Project Challenges

- Upstream of Delta Storage
 - Limited storage – capacity often exceeded in wetter years
 - Restricted use of storage to preserve cold water for fish
 - Higher reliance on storing water to avoid periods that would limit the use of releases for water supply and other demands
- Ability to export within and through the Delta
 - Highest export limitations occur during high inflow months
 - Higher reliance on exporting stored water in summer months
- South of Delta Export Storage
 - Limited storage – capacity may be exceeded with improved conveyance

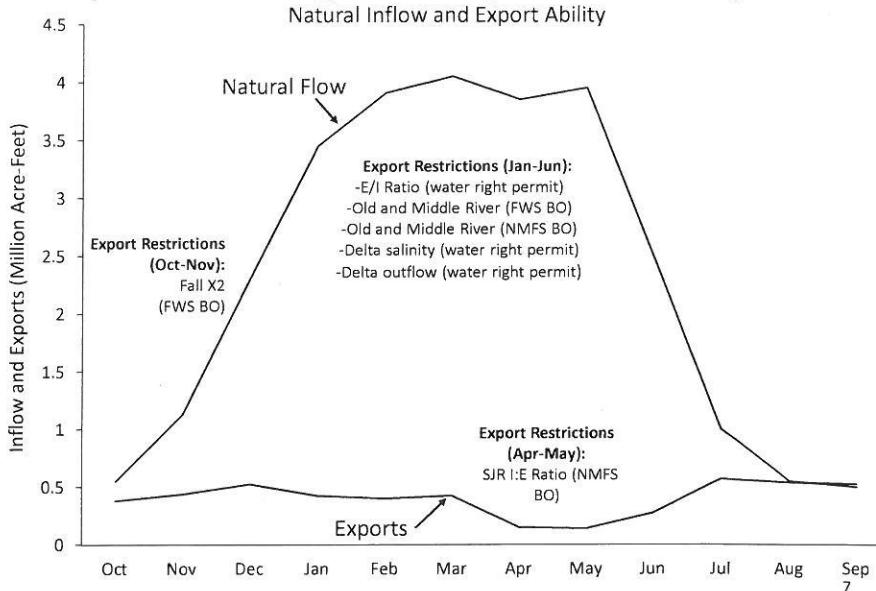
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Natural Inflow, Listed Species Fish Migration and Export Ability



Not to scale. Average unimpaired inflow in March of 4 Million Acre Feet. Approximate average export in March of 0.4 Million Acre Feet.

Specific Regulatory Restrictions



Process

12 month NEPA EA (project-specific)

- OMR
- San Joaquin I:E

18 month NEPA EIS (programmatic)

- Storage
- Export Ability
- Other stressors
- Power Generation

Future Tiered NEPA (project-specific)

- Re-operation
- Habitat and Infrastructure
- Export Ability Improvements
- Additional Storage

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12 month NEPA EA (Phase 1)

Components may include:

- Old and Middle River Reverse Flows during excess conditions
- San Joaquin Inflow to Export Ratio in Wet and Above-Normal years

12 month NEPA EA (project-specific)

- OMR
- San Joaquin I.E.

Would complete a NEPA document and Biological Assessment for these components in 1 year.

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18 month NEPA EIS (Phase 2)

- Evaluate the most beneficial combinations of increased storage (upstream and export) and conveyance
 - Increase storage capacity
 - Increase local groundwater banking capacity
- Evaluate regulations with the highest water cost and lowest species benefit and identify alternatives
 - Evaluate regulatory restrictions (e.g. CVPIA, COA)
 - Add new facilities (e.g. CWF)
- Evaluate the extent to which addressing other stressors on fish populations and non-flow projects might improve fish populations with less water supply impact
 - Measures to improve fish populations and operational flexibility with minimal water cost
- Evaluate regulatory changes and infrastructure with the most potential to benefit power customers
 - Regulatory modifications
 - Infrastructure improvements

18 month NEPA EIS (programmatic)

- Storage
- Export Ability
- Other stressors
- Power Generation

Would complete a programmatic NEPA document for these components in 18 months.

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18 month NEPA EIS Schedule Assumptions (Phase 2)

18 month NEPA EIS (programmatic)

- Storage
- Export Ability
- Other Stressors
- Power Generation

- Limited ability to incorporate stakeholder input – alternatives development starts ASAP
- Draft documents will be limited to solely the required public draft prior to the final (no administrative or cooperating agency review)
- Alternatives will largely consider previously analyzed projects
- Analysis tools will not all be peer reviewed (would add 4 months) nor publicly available prior to analysis
- Alternatives may not be able to fully quantify benefits and impacts (would add 4-8 months of analysis)
- Contracting and other resources available prior to NOI
- Notice of Availability Review: 2 weeks

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Future Tiered NEPA and ESA (Phase 3+)

Future Tiered NEPA (project-specific)

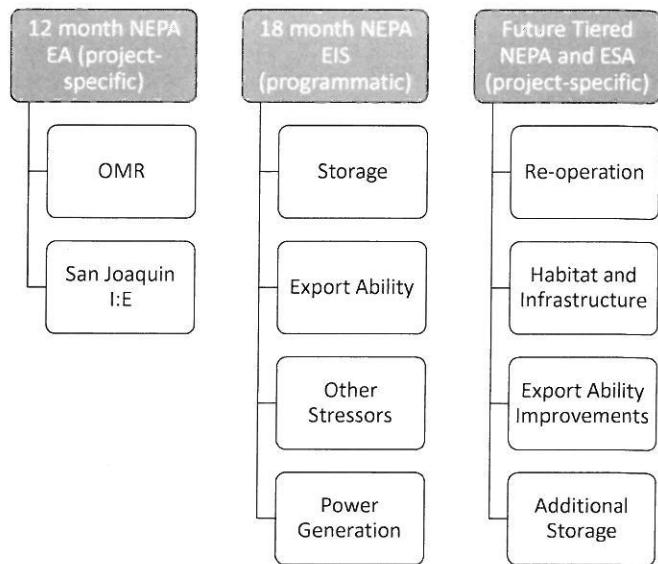
- Re-operation
- Habitat and Infrastructure
- Export Ability Improvements
- Additional Storage

- Construction actions for new/modified storage and conveyance facilities
- Optimize project operations to incorporate new/modified storage and conveyance facilities
- System reoperation using modified storage and flow objectives
- Modifying facilities and reservoir operations to better meet temperature objectives with less water supply impact
- Review and evaluate regulations which restrict or limit operations
- Define habitat and facility constructions actions which may reduce required flow releases for meeting fish and water quality objectives
- Determine the expected water supply benefit for non-flow actions
- Specify actions and other infrastructure improvements to help meet fish and water quality objectives with minimal / no water supply impact

Would complete NEPA and ESA documents. Would be tiered from the 2018-2019 programmatic NEPA document and complete project-specific NEPA on elements that move forwards.

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Process



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