

YOLO BYPASS COMPREHENSIVE STUDY:

STATUS REPORT

Tina Teed, Lead Planner
Sacramento District, USACE
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Sacramento Weir 2017



Yolo Bypass Salmonid Habitat Restoration and Fish Passage (Big Notch) Project



US Army Corps
of Engineers®



DISCUSSION TOPICS



- Study Authority and Study Specific Guidance
- Comprehensive Study Approach: Near term and long-term actions
- Existing Conditions – Why is the Yolo Bypass so important?
- Future Without Project Conditions – Why are we proposing projects?
- Outreach and Coordination
- Problems and Opportunities
- Comprehensive Study Objectives
- Plan Formulation Strategy: Comprehensive and Feasibility-Level
- USACE Study Timeline: Next Steps



STUDY AUTHORITY AND GUIDANCE



Study Authority: Section 209 of the Water Resources Development Act of 2020, included in Part 2, Division AA of the Consolidated Appropriations Act of 2021 (Pub. L. No. 116-260, Part 2 Div. AA, §209, 134 Stat. 2615, 2681-2682 (2020))

“identify actions to be undertaken by the Secretary for the comprehensive management of the Yolo Bypass System for the purposes of flood risk management, ecosystem restoration, water supply, hydropower, and recreation.”

➤ The Secretary may develop a recommendation to Congress for--

(A) the **construction** of a water resources development project;

(B) the structural or operational **modification** of an existing water resources development project;

(C) additional **monitoring** of, or **adaptive management** measures to carry out with respect to, existing water resources development projects, to respond to changing hydrologic and climatic conditions; or

(D) geographic areas within the Yolo Bypass System for **additional study** by the Secretary.”

Specific Guidance: “Since the comprehensive study combines both a comprehensive-level approach and a feasibility-level approach of the Yolo Bypass System, the study will result in a feasibility report.”



COMPREHENSIVE STUDY APPROACH



➤ Comprehensive-Level Approach (Comprehensive Management Plan)

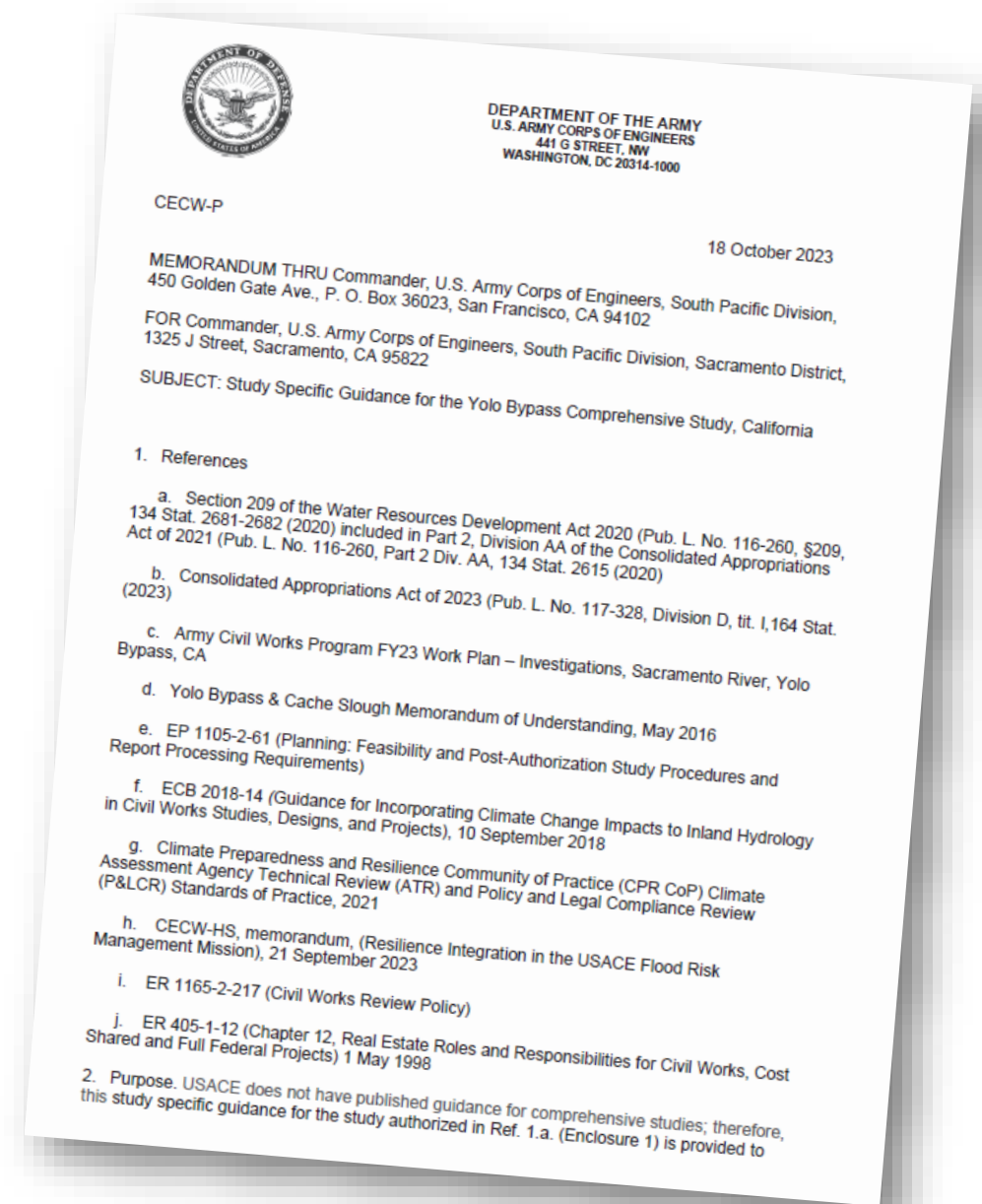
- System-wide, programmatic strategies
- Developed at a comprehensive level of detail
- Uses data and information from State
- Includes items such as O&M, monitoring, R&D

➤ Feasibility-Level Approach

- New features
- Structural or operational modification of existing features
- To include comprehensive benefits
- Developed at feasibility level of detail

➤ Recommendations for future feasibility studies

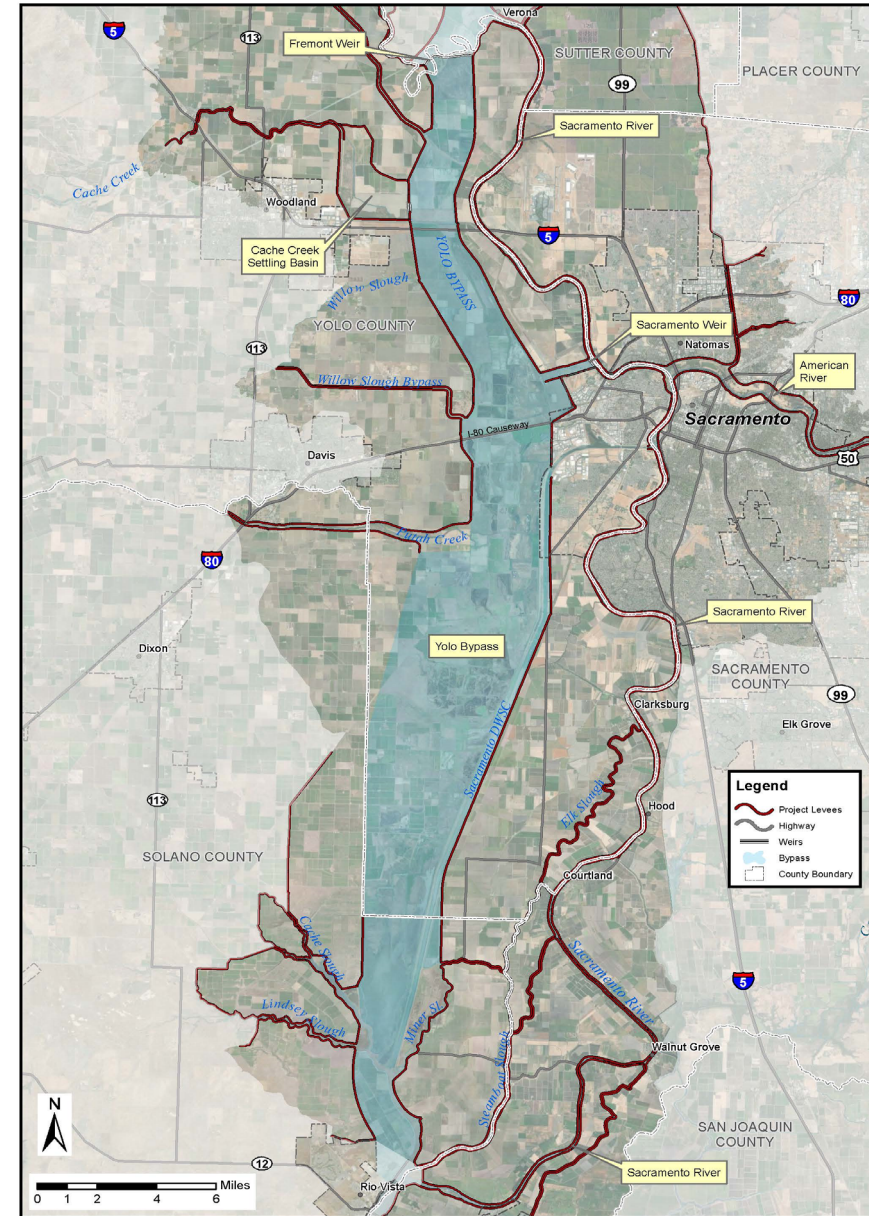
- Based on plan formulation development and screening
- Described at a high-level detail





YOLO BYPASS SYSTEM

- Key feature of Sacramento River Flood Control Project
- 40-mile-long federal flood management facility
- Authorized in 1917
- Multi-purpose including flood, habitat, agriculture, recreation, water supply
- Aging system that need modification to address modern needs
- Unparalleled opportunities for collaborative planning and multi-benefit projects



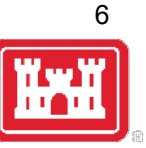
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YOLO BYPASS AND VICINITY
Sacramento River Flood Control System





YOLO BYPASS SYSTEM EXISTING CONDITIONS



Flood Risk Reduction

- Heart of the Sacramento River Flood Control Project
- Reduces risk to 950,000 people, 284,000 structures, \$150 billion in critical infrastructure (Sacramento, West Sacramento, Woodland, Davis, Elk Grove, Walnut Grove, and more)

Ecosystem of National Significance

- Pacific Flyway for millions of waterfowl + over 500 terrestrial and aquatic species
- Culturally significant species and Endangered & Threatened species
- Designated Critical Habitat for Green Sturgeon throughout Yolo Bypass and Delta Smelt in southern portion

Agricultural Economy: 47,000 acres in the bypass; 900,000 acres in vicinity; 1.5 billion in annual revenue

Water Supply Delivery System: Significant mitigation area for Biological Opinions for continued operation of the State Water Project, which provides drinking water to 25 million Californians and irrigation to 4.5 million acres of agricultural land

Historic and Cultural Significance

- Congress designated Sacramento-San Joaquin Delta as a National Heritage Area (NHA) in 2019 due to its historical and cultural national significance
- Deep history of cultural significance to 15 Native American Tribes

Recreation and Education: Provides local and regional recreation, tourism, and environmental education opportunities



THREATENED AND ENDANGERED SPECIES



- California Clapper Rail
- Least Bell's Vireo
- Western Snowy Plover
- Yellow-billed Cuckoo
- Giant Garter Snake
- California Tiger Salamander
- Delta Smelt
- Longfin Smelt
- Delta Green Ground Beetle
- Monarch Butterfly
- Valley Elderberry Longhorn Beetle
- Steelhead trout
- Conservancy Fairy Shrimp
- Vernal Pool Fairy Shrimp
- Vernal Pool Tadpole Shrimp
- Colusa Grass
- Palmate-bracted Bird's Beak
- Solano Grass

- Southern Distinct Population Segment of North American green sturgeon
- Sacramento River winter-run Chinook salmon
- Evolutionarily significant unit of Central Valley spring-run Chinook salmon





FUTURE WITHOUT PROJECT CONDITION ASSUMPTIONS



Completion of Folsom Dam Projects:

- Folsom Dam Modifications/Joint Federal Project (JFP)
- Folsom Dam Raise

Completion of Sacramento Weir and Bypass Widening Project

Completion of Authorized Levee Improvement Projects:

- Yuba River Basin (Marysville Ring Levee)
- American River Common Features (Natomas)
- American River Common Features (Sacramento)
- West Sacramento
- Lower Elkhorn Basin Levee Setback (408) (not shown on map)





FUTURE WITHOUT PROJECT CONDITION ASSUMPTIONS



- Fremont Weir Adult Fish Passage Modification Project
- Big Notch
- Yolo Bypass Wildlife Drainage Improvement Project
- Lower Yolo Ranch Restoration Project
- Prospect Island Tidal Habitat Restoration
- North Delta Fish Conservation Bank
- Yolo Flyway Farms
- Lookout Slough Tidal Habitat Restoration and Flood Improvement



Photo: Chris Austin



Photo: Janet Byron



Photo: Mike Healey



OUTREACH



- Tribes
 - January 25, 2024, hosted virtual inter-Tribal workshop to introduce the Study and solicit input on problems and opportunities

- Yolo Cache Slough Partnership
 - February 26, 2024, presented Study to the Partnership organizing committee

- Environmental Justice community(s)
 - October 2023 – Mailers sent to residents within EJ community seeking input about the study*
 - November 6, 2023 – Outreach meeting for residents*
 - March 6, 2024 – Meeting with community leaders*

*Through the NFS's Upper Yolo Bypass Regional Planning and Coordination process.



AGENCY AND PUBLIC COORDINATION



- Letters were sent November 6, 2023*, inviting the following agencies to become Cooperating Agencies under NEPA:
 - National Marine Fisheries Service (NMFS)
 - U.S. Fish and Wildlife Service (USFWS)
 - California Department of Fish and Wildlife
 - Central Valley Regional Water Quality Control Board
 - U.S. Environmental Protection Agency (EPA)
 - National Resources Conservation Service (NRCS)
 - U.S. Bureau of Reclamation
 - Yolo-Solano Air Quality Management District

- Interagency/scoping kickoff meeting held December 6-7, 2023. Additional meetings in 2024.

*Based on scoping, the Federal Aviation Administration was invited as a Cooperating Agency on January 5, 2024.



PROBLEMS & OPPORTUNITIES



Problems

- Risk of flooding
- Impaired natural hydro-geomorphic processes
- Restricted fish passage
- Tribal access to culturally important land
- Drought and water supply reliability
- Water quality
- Lack of shaded riparian vegetation

Opportunities

- Improve socio-economic conditions through FRM improvements
- Improve riparian and aquatic habitats
- Integrate with other Tribal, Federal, State, and local initiatives
- Enhance public awareness
- Multi-benefit features
- Traditional tribal ancestral plant palettes



Comprehensive Study Objectives

- **Objective 1:** Reduce flood risks to life safety, property, and critical infrastructure within the Yolo Bypass vicinity.
- **Objective 2:** Improve ecological function of riparian and wetland habitats within the Yolo Bypass, prioritizing incorporation of native and culturally significant vegetation to the maximum extent practicable.
- **Objective 3:** Enhance fish ecology by improving access to floodplain habitat and reducing stranding in the Yolo Bypass.
- **Objective 4:** Increase opportunities for recreational and Tribal access within the Yolo Bypass.
- **Objective 5:** Increase sustainability and resiliency of the FRM System and its associated agricultural, riverine and floodplain habitat within the Yolo Bypass.
- **Objective 6:** Improve quality of recreation/education opportunities within the Yolo Bypass.



PLAN FORMULATION STRATEGY

COMPREHENSIVE OR FEASIBILITY

- Determined if measures should be considered as comprehensive management measures or feasibility level measures:
 - Systemwide? Comprehensive Management
 - Programmatic? Comprehensive Management
 - Site specific? Feasibility Level

- If site-specific, consider when?
 - Near term, sponsor support? Feasibility study now
 - Sufficient existing information? Feasibility study now
 - Conceptual or big data gap? Future feasibility study

- Comprehensive management measures will continue to evolve:
 - Outreach (tribal, environmental justice communities, public), Yolo Bypass Cache Slough Partnership, feasibility-level effort
 - Communication Plan – USACE and Sponsors co-developing outreach and communication plan



COMPREHENSIVE-LEVEL APPROACH



- Comprehensive Management Plan study components:
 - Phased approach to future feasibility studies through a programmatic study authority
 - Pilot projects to inform complex components and associated policy issues
 - Operational changes and updates to system-wide hydraulic profiles
 - Programmatic study and construction authority and annual funding
 - Proposed requirements for reporting accomplishments to Congress
 - Programmatic environmental compliance
 - Engagement and funding plan for early and continuous integration of Federal agencies



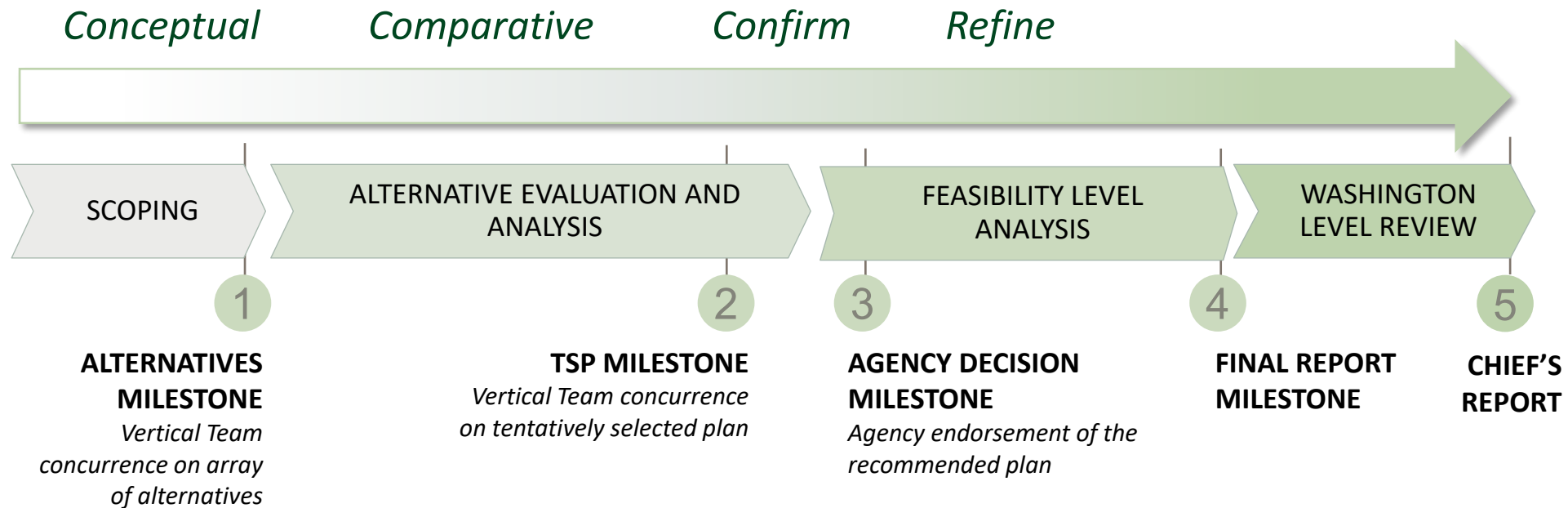
FEASIBILITY-LEVEL APPROACH



- Formulate alternative plans that focus on priority purposes of Flood Risk Management and Aquatic Ecosystem Restoration and enhance or optimize for secondary purposes identified in the study authority and Sponsors and YBCS Partnership
 - FRM Purpose theme: strategy focuses on flood water conveyance, bypass capacity, reservoir storage
 - Eco Purpose theme: strategy focuses on addressing fish passage and floodplain habitat
 - Secondary Purpose theme: strategy focuses drought/water supply, ag production sustainability, water quality, and climate change resiliency



USACE STUDY PROCESS





THANK YOU!

