

Yolo Bypass-Cache Slough Partnership and Program Implementation

Central Valley Flood Protection Board Workshop Friday, November 6, 2020

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Workshop Objectives

- Provide a high-level overview of the Yolo Bypass-Cache Slough Partnership and program.
- Address components of the program that include collaborative efforts, policy issues, implementation accomplishments and barriers.
- Gain feedback from the Board, stakeholders and members of the public on the Partnership and program that can inform the 2022 Central Valley Flood Protection Plan Update.



Workshop Agenda

Topic

Welcome, Introductions and Agenda Review

A. Yolo Bypass Overview

B. Partnership and Collaboration

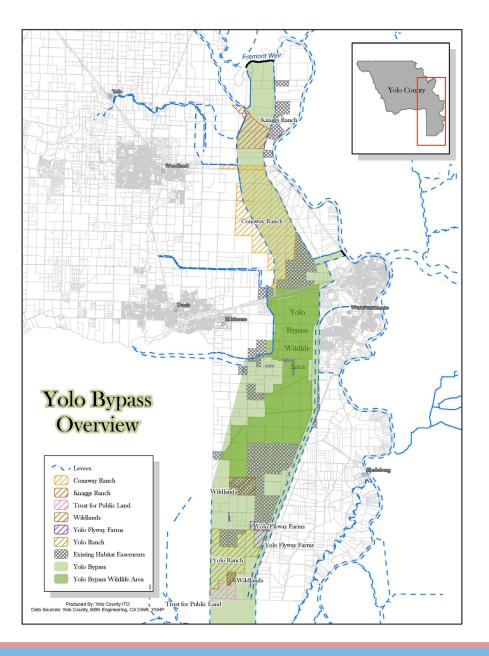
C. Implementation Accomplishments and Barriers

- D. Landscape-scale Actions to Develop Multi-Benefit Projects and Address Barrier Issues
- E. Conclusion



4A. Introduction and Overview

Presented by: Ruth Darling, CVFPB Mary Jimenez, DWR Catherine McCalvin, DWR



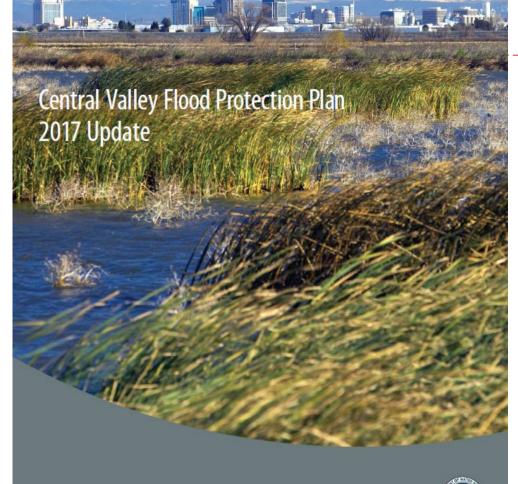
One Bypass, Many Activities

- Yolo Bypass-Cache Slough is a major component of the Sacramento River Flood **Control Project.**
- Bypass emerging as a focus of planning & project implementation efforts affecting multiple federal, state, and local interests
 - Potential bypass expansion identified in 2017 **CVFPP**
 - Many projects underway and proposed in Yolo **Bypass**
 - Variety of implementation barriers and policy issues to address



Implementation Barriers and Policy Issues in the Bypass

- 1. Sustainability of Agricultural Economy
- 2. Water Infrastructure Assurances
- 3. Complex Permitting (e.g., 408, 404, 401, 1600, 2081, 106, etc.)
- 4. Water Quality
- 5. Long-Term Operations and Maintenance
- 6. Complexity of Multi-Benefit Project Implementation
- 7. Project Funding



CVFP

CALIFORNIA DEPARTMENT OF WATER RESOURCES

Yolo Bypass and CVFPP

- Yolo Bypass recommendations in the 2017 CVFPP Update
- Regional Flood Management Planning (RFMP) and Corridor Management Framework
- Conservation Strategy Update
- Alignment with other State efforts in the Bypass, including Governor's Water Resiliency Portfolio

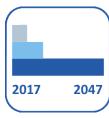


Yolo Bypass Recommendations in the 2017 CVFPP Update

- Phased implementation of Yolo Bypass multi-benefit
 improvements
- Expand system capacity in the bottom of the system first
- Expand Yolo Bypass in multiple locations with levee setbacks, where feasible
- Recommendations include incorporation of ecosystem and multi-benefit features
- Increase investments in O&M (e.g., FSRP, FMAP, storm damage repairs) and small communities



CVFPP Flood Management Policy Issues -Yolo Bypass is leading the way



Hydraulic and Ecosystem Baseline and Program Phasing



Governance and Institutional Support



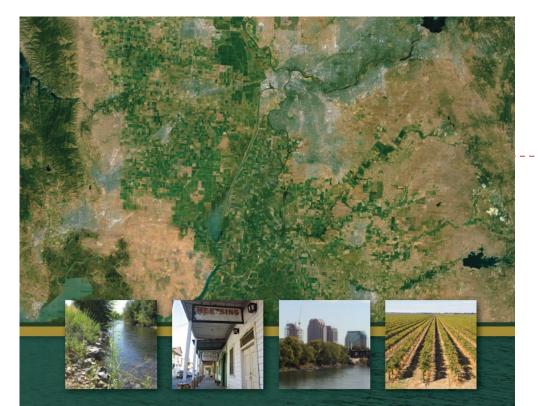
Operations and Maintenance of the Flood System



Coordination with Federal Agencies



Multi-benefit Projects



Lower Sacramento River/Delta North Regional Flood Management Plan July 2014

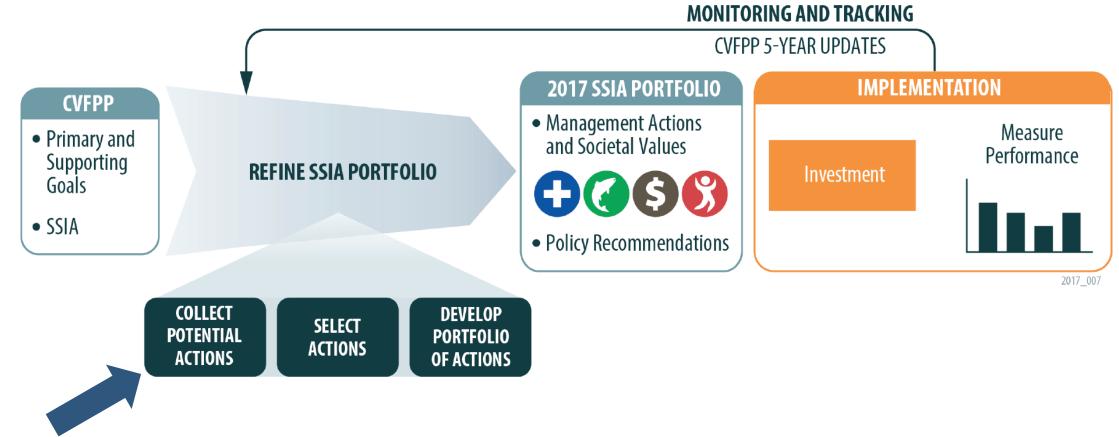


Regional Flood Management Planning

- West Sacramento Flood Control Agency lead for Lower Sacramento/Delta North (LS/DN) RFMP
- LS/DN Corridor Management Framework Feb. 2015
- LS/DN RFMP developing updated list of actions for 2022 CVFPP Update
- Multiple efforts also focused on advancing implementation in the region



Maintaining Development Process for 2022





Conservation Strategy Update







Integrate Climate Change Resilience



Track Implementation and Outcomes



Integrate with Other State and Regional Efforts Promote Multi-benefit Projects



Venues for Engagement/Collaboration



- Yolo Bypass-Cache Slough Partnership
- Lower Sacramento River/Delta North RFMP
- CVFPB Board Meetings
- CVFPB Workshops
- CVFPB Coordinating Committee
- CVFPB Advisory Committee



CVFPP Alignment with Other State Efforts in the Bypass

- Governor's Water Resilience Portfolio
 - Action 11.3 Support expansion of multibenefit floodplain projects, such as the YB-CS Partnership program
- California EcoRestore
- Mitigation Mandated by California and Federal Endangered Species Acts for State Water Project Long-Term Operations







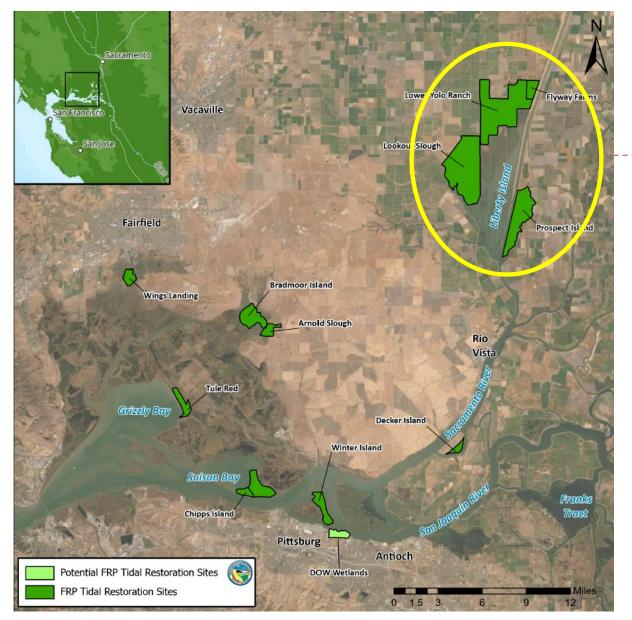
Mitigation Requirements

• Fish Restoration Program – tidal and floodplain habitat

- Restore 8,396 acres for Delta smelt
- Restore 1,196 acres for longfin smelt
- Restore functions and processes that promote export of nutrients and productivity to Delta food webs
- Salmonid floodplain habitat

• Yolo Bypass Program – floodplain habitat and passage

- Provide significantly increased acreage of seasonal floodplain salmonid rearing habitat in the lower Sacramento River basin.
- Reduce migratory delays and loss of salmon, steelhead, and sturgeon at Fremont Weir and other structures in the Yolo Bypass.



Fish Restoration Program Tidal Restoration Projects

Completed Construction (est. 1571 acres)

- Decker Island
- Winter Island
- Tule Red
- Yolo Flyway Farms

Under construction (est. 1,870 acres)

- Wings Landing
- Lower Yolo Ranch

Design and permitting (est. 5,981 acres)

- Arnold Slough
- Bradmoor Island
- Chipps Island
- Lookout Slough
- Prospect Island

Estimated 9,422 acres total for Delta Smelt_{Agenda Item 4A, slide 16}





Yolo Bypass Projects

Built & Operable

- Fremont Weir Adult Fish Passage Modification Project (2018)
- Wallace Weir Fish Rescue Facility Project (2017)
- Improved 2 agriculture crossings (2017)

Planning & Design

- Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project (2021-2022)
- Agricultural Road Crossing #4 (2023)
- Lisbon Weir (2024)
- Putah Creek realignment (TBD)



Ag Road Crossings: Before & After





4B. Yolo Bypass-Cache Slough Partnership and Collaboration

Presented by: Mary Jimenez, DWR Felix Yeung, USACE Eric Nagy, LSDN Gary Bardini, SAFCA



2017 CVFPP Built on Collaboration...

Stakeholder participation was a cornerstone in the development of the 2017 CVFPP Update and will continue to be essential as the CVFPP is implemented. The regional flood management planning effort, in particular, represents an unprecedented partnership and level of engagement among Central Valley planning entities, and can serve as a model as California moves ahead to meet its future flood and water management needs.

- Director, DWR, Grant Davis

Prepared in cooperation with local agencies, landowners, and stakeholders, it represents a major accomplishment of involvement and engagement for the Board. Based upon our discussions and public testimony, we believe that there is significant support for this update. **This extensive, ambitious plan will only come to fruition if everyone – federal, State, local governments, landowners, and stakeholders – all work together and agree to support, help fund, and implement the work contemplated in this update.**

– President, CVFPB, Bill Edgar



...and Strong Regional Partnerships

Development of the 2017 CVFPP...

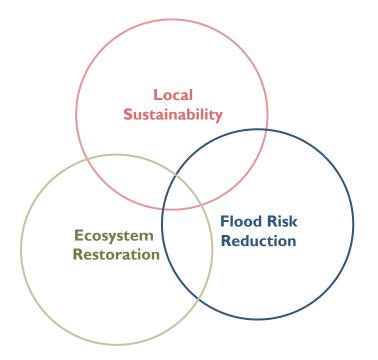
- Included input from six RFMP development teams, including LS/DN
 - Opportunity to strengthen relationships across a broad range of local agencies involved in flood management
 - Inform State's approach to improving flood risk management through recommended investments and policies
- Extensively engaged the LS/DN Region regarding the future of the Yolo Bypass-Cache Slough Complex



A Partnership Emerges...

The Yolo Bypass-Cache Slough Region has emerged as the focus of planning & project implementation efforts affecting multiple Federal, State, and local interests.

In May 2016, 15 Federal, State, and local agencies signed the Yolo Bypass-Cache Slough MOU with the intent to work together to *prioritize and resolve barriers to success* and to collaborate to successfully *implement multi-benefit projects*.





...with an "All Boats Rise" Principle...

The Parties recognize the following principals, which will guide collaborative efforts under this MOU:

- A. Successful planning understands and addresses the specific concerns of each Party and those that they represent, such as concerns related to potential species, regional economy, and water supply conflicts, among others.
- B. Public benefit projects will protect or improve the flood system resiliency of the Yolo Bypass, which is an authorized State and Federal flood management facility.
- C. Public benefits are inherent in the integration of flood management, habitat restoration, and economic sustainability efforts, and these public benefits should be maximized wherever appropriate.
- D. Each Party is committed to understanding the opportunities and constraints of one another's independent authorities and regulatory responsibilities, which will not be compromised through participation in the collaborative efforts described in this MOU.
- E. Local expertise and technical input is valuable and should be actively sought out through effective stakeholder outreach. - Yolo Bypass & Cache Slough MOU, May 2016



...and 6 pillars of common importance





Fisheries and Wildlife Habitat



Water Quality



Agricultural Land Preservation and Economic Development



Water Supply

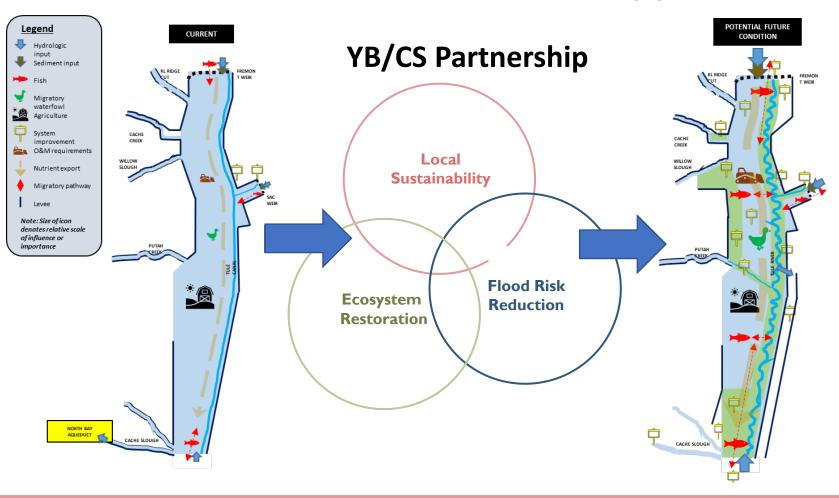


Recreation

- Draft Yolo Bypass & Cache Slough Partnership Vision Document, Oct 2020 Agenda Item 4B, slide 24



What is at stake? Multibenefit Yolo Bypass





Chaotic

Environment of

Federal and

State Polices

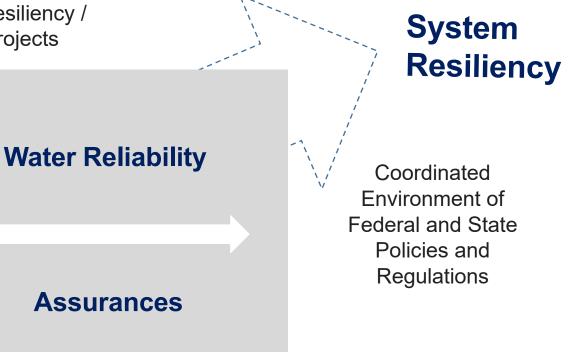
and Regulations

What is needed for success? Long-term System Resiliency

Strong System Resiliency / Multi-benefit Projects

Land Use

Infrastructure



Weak System Resiliency / Single Purpose Projects

Where do we go from here?

> Partnership

4100 Risk Reduction

system

" UOIJEIL

to cal sustainability

State Legislative Intent

- Endorses and formalizes the Yolo Bypass Partnership and its role in projects, planning, and implementation including
 - Coordinate and resolve implementation sequencing issues, review technical documents and projects' financing
 - Engage with stakeholders
- Fosters agricultural sustainability in Yolo Bypass and economic health of the region
- Facilitates future appropriation of funding for projects.



Federal Legislative Intent

- Authorizes preparation of a comprehensive Feasibility Study (Study) for Yolo Bypass Multi-Benefit Program that includes:
 - Conducting system-wide analyses of the Yolo Bypass Program
 - Identifying site-specific projects with federal interest in Yolo Bypass Program
 - Promoting multi-purpose and systemwide federal project planning while providing for system resiliency
- Acknowledges, endorses, and formulizes Yolo Bypass Partnership and its role in Yolo bypass Projects planning and implementation
- Facilitate federal projects' funding appropriation through completion and authorization of the Study Agenda Item 4B, slide 27



Discussion



4C. Implementation Accomplishments and Barriers

Presented by: Jason Sidley, DWR Ric Reinhardt, LSDN



Accomplishments Summary

- Regional Flood Management Planning Program (RFMP)
- Small Communities Flood Risk Reduction Program (SCFRR)
- Urban Flood Risk Reduction Program (UFRR) Sacramento Weir and Bypass Widening and West Sacramento and Southport Projects
- Systemwide Flood Risk Reduction Program (SFRR)
- Flood System Operations and Maintenance Program (FSO&M)

Societal Values





Ecosystem Vitality





RFMP

Regional Flood Management Planning



Lower Sacramento River/Delta North Regional Flood Management Plan July 2014



Lower Sacramento River/Delta North Region	Funding
Phase 1	\$1.65M
Phase 2	\$1.1M
Phase 3	\$0.85M





Small Communities Flood Risk Reduction Program

Knights Landing

- Phase I
 - \$500,000 grant to complete a feasibility study for the community
 - Part of \$1.5M grant for the communities of Clarksburg, Knights Landing, and Yolo
- Phase II
 - \$15.9M grant for Knights Landing Flood Management Project

Rio Vista

- Phase 1
 - \$499,904 grant to complete a feasibility study for the community
 - Solano County Water Agency led the study for the Grantee
- Grantee completed the study April 2020



SCFRR







Sacramento Weir and Bypass Widening Project

- Part of the \$1.5 billion USACE American River Common Features Project 2016
- Widens weir and bypass by 1,500 feet (almost doubling the size of the weir and bypass)
- Lowers Sacramento River water surface elevation by almost 2 feet during high water events
- Construction anticipated to begin in 2022
- State cost share approximately \$200M



UFRR







West Sacramento and Southport Project

- \$1.0B USACE Project that protects 48,000 people and \$4.2B of assets
- Project components such as the Southport setback levee have completed construction
- State cost share approximately \$276M



UFRR



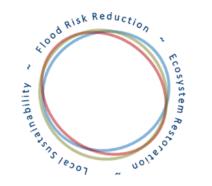
Lower Elkhorn Basin Levee Setback Project





- Setback of about 7 miles of levee and expansion of the Yolo Bypass by about 1,500 feet
 - Approximately double the size of the Sacramento Bypass
 - Provides public safety, environmental, and agricultural sustainability benefits
- Interior drainage work and pump station construction (DWR/SAFCA)
- Construction mobilization started August 2020





Proposed Lookout Slough Tidal Habitat Restoration and Flood Improvement Project



• Multi-benefit EcoRestore Project

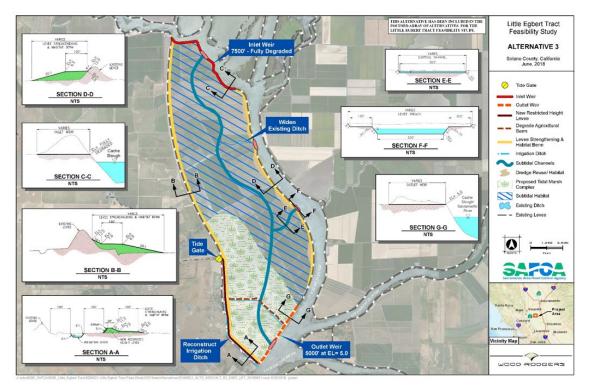
- Partially fulfill obligations under the USFWS Delta Smelt Biological Opinion (BiOp) and NMFS Salmonid BiOp
- Widen a portion of the Yolo Bypass to increase flood storage and conveyance
- Final EIR completed Oct 2020



SFRR



Proposed Little Egbert Tract Multi-Objective Project



- Goal of achieving
 - Flood risk reduction
 - Habitat restoration benefits
 - while addressing agricultural sustainability
- Feasibility Study Completed 2018



SFRR





Deferred Maintenance Project (DMP)

- State funded program to:
 - Evaluate and repair levee penetrations
 - Address known threats to levee integrity due to 2017 storm
 - Perform specific deferred maintenance actions
 - Enhance emergency response capabilities
- Internal Inspection : 5 pipes
- CIPP Rehab: 1 pipe
- Geophysical EM-31 Surveys: 25 pipe locations



FSO&M





Flood System Repair Project (FSRP)

- Part of State Direct Levee Assistance Program to support local maintaining agencies (LMAs) to reduce flood risks by repairing State Plan of Flood Control (SPFC) facilities of the Sacramento and San Joaquin River systems in rural areas
- Funding for the repairs is through state and LMA cost-share agreements.
- Several patrol road rehabilitation projects on LMAs which border the bypass to date.
 - Locally-led with a 15% local cost share.





Flood Maintenance Assistance Program (FMAP)

- Budget Act of 2018 appropriated funding to DWR for OMRR&R costs
- Partners with LMAs to work towards sustainable O&M by:
 - Providing State funds through a cost-share agreement to LMAs to reduce the accumulation of deferred maintenance
 - Securing new OMRR&R assurance agreements between LMAs and the CVFPB
 - Promoting consolidation or regional governance of LMAs
 - Improving eligibility for USACE PL84-99 Program enrollment
- 16 LMAs participating in the program





Storm Damage DWR Emergency Rehabilitation Repairs (SDDER)

Emergency Repairs (Yolo Bypass)

- Two SDDER repairs completed in 2017-2018:
 - RD 827 \$311,175
 - Sacramento Maintenance Yard \$985,007
- Two emergency repairs completed in 2020:
 - RD 827 (2 sites completed) \$348,733
 - RD 1600 (just kicking off) \$716,500



FSO&M

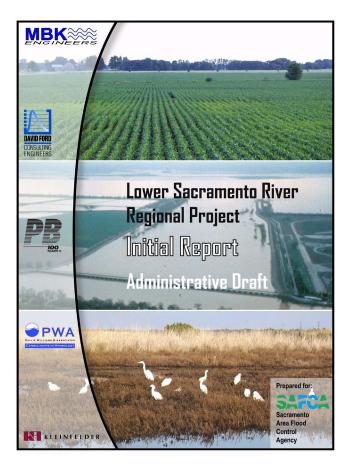


Regional Governance Accomplishments

- Lower Sac/Delta North RFMP Team
- 2014 Yolo County Flood Governance Study
- Local Maintaining Agency (LMA) consolidation
 - RD 537
 - RD 900
- Joint Powers Authority (JPA) for Little Egbert Tract
- Governance studies proposed
 - Clarksburg
 - Knights Landing



Implementation Barriers



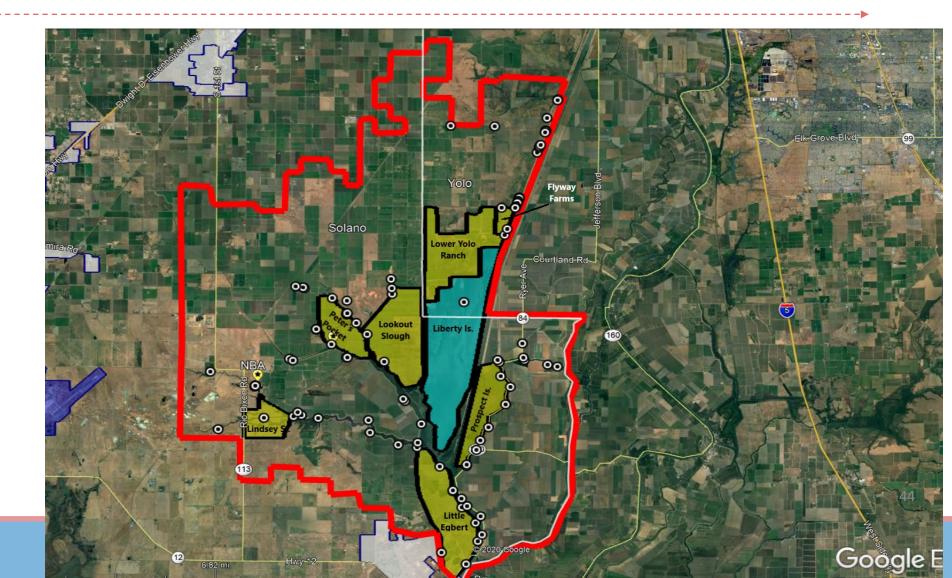
- What is an implementation barrier?
- Learning from our failures
- Y/B Partnership as a forum for addressing

implementation barriers



Implementation Barriers

Habitat projects proposed or being studied in the Lower Yolo Bypass/ Cache Slough Area





Discussion



4D. Landscape-Scale Actions – Efforts to Develop Multi-Benefit Projects and Address Barrier Issues

Water Infrastructure Assurances

Presented by: Mike Roberts, DWR Misty Kaltreider, Solano County



Background

- Yolo Bypass/Cache Slough region a focus of tidal habitat restoration
- Local concerns over impacts to existing diversions
- Yolo/Cache Partnership Regulatory Assurances Workgroup selected an HCP approach in 2018
- Goal: Ensure continued O&M of existing diversions



Phased Approach

Phase 1

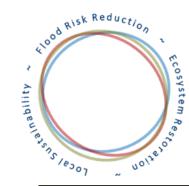
- HCP Purpose
- Initial Scope:
 - Plan Area
 - Covered activities
 - Covered species

Phase 2

- Draft HCP
- Draft CEQA/NEPA
- Public review

Phase 3

- Response to comments
- Final HCP and CEQA/NEPA
- Permit application(s)



Who is developing the HCP?

County of Solano with support from DWR

DWR is providing funding for HCP planning

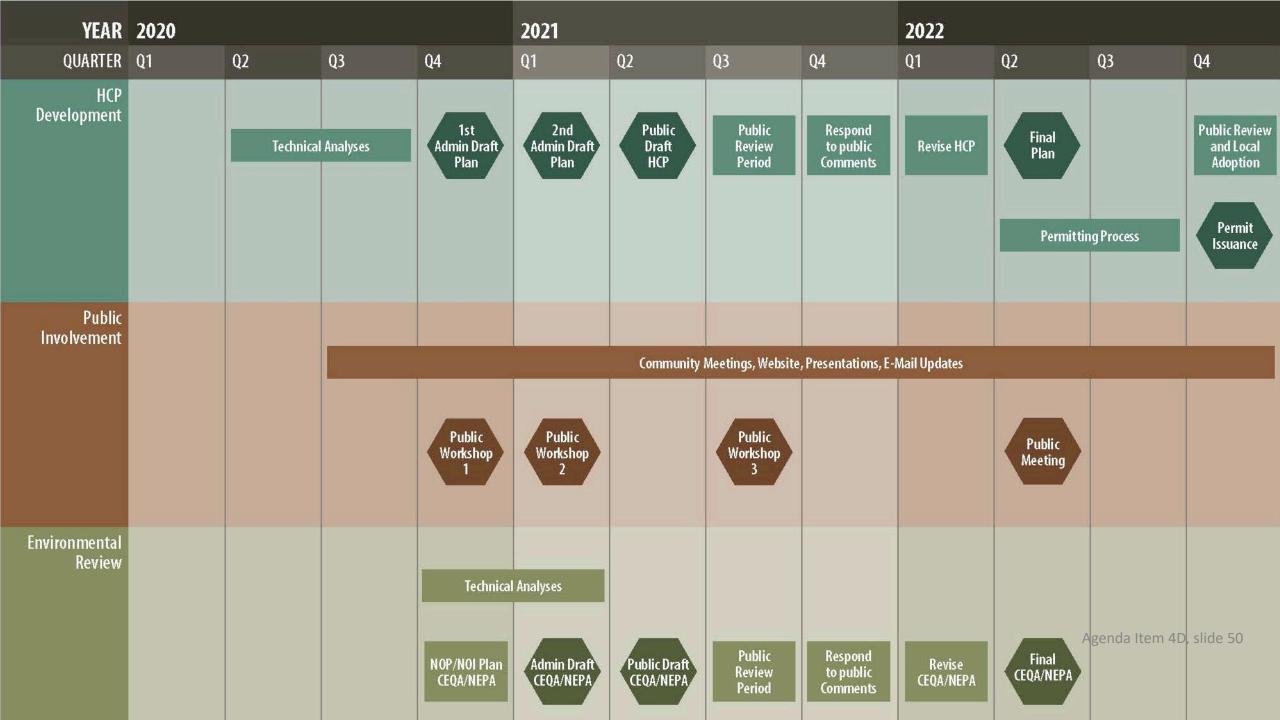
HCP Steering Committee

- County of Solano
- California Department of Water Resources
- Solano County Water Agency
- Reclamation District No. 2068
- Sacramento Area Flood Control Agency
- County of Yolo

Yolo Bypass/Cache Slough Partnership

- California Department of Fish and Wildlife
- California Department of Water Resources
- California Natural Resources Agency
- Central Valley Flood Protection Board
- Central Valley Regional Water Quality Control Board
- County of Solano
- County of Yolo
- National Marine Fisheries Service
- Reclamation District No. 2068
- Sacramento Area Flood Control Agency
- State Water Resources Control Board
- U.S. Army Corps of Engineers
- U.S. Bureau of Reclamation
- U.S. Fish and Wildlife Service

Intake Owners/Operators



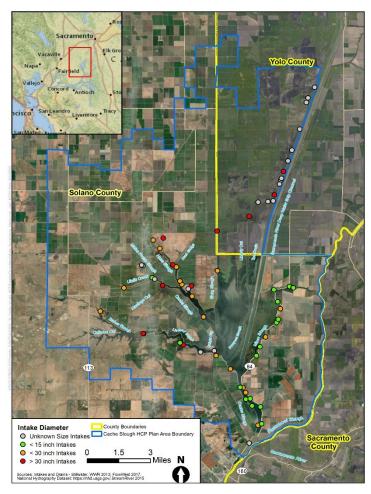


Working Assumptions

Solano County as permittee and lead on

HCP development and implementation

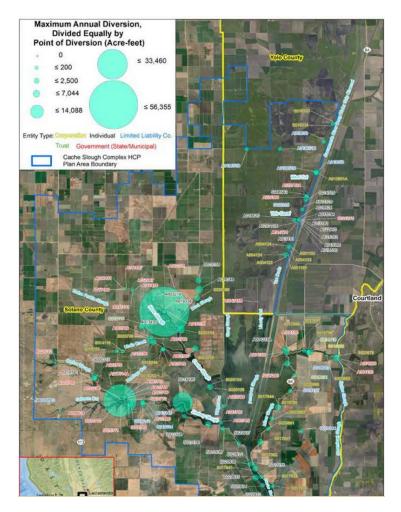
- Draft covered activities existing diversion operations
- Draft covered species 8 fish, 3 terrestrial
- Anticipating separate EIR and EIS docs
- Utilize water diversion quantity as proxy for take
- Leverage existing reporting mechanisms and data





Current Status

- Draft charter complete
- Field visit and virtual tour complete
- Diversion accounting mostly vetted
- Covered activities drafted
- Effects analysis and conservation strategy partially drafted
- Early implementation dollars identified!





Next Steps

- Continue the HCP development
- Finalize charter and increase agency engagement (e.g. designate **NEPA** lead)
- Evaluate enrollment mechanisms (how operators secure coverage)
- Initiate CEQA document



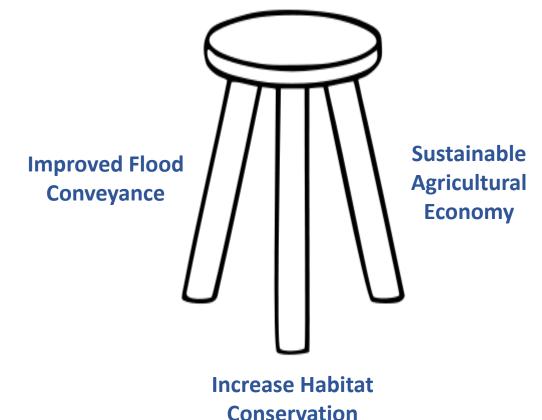
Outreach Process

- Early engagement with landowners/potential enrollees 2019
- Workshops and landowner meetings
 - October 2020
 - March 2021
 - August 2021
- Request one-on-one meetings/status updates: <u>CacheSloughHCP@SolanoCounty.com</u>
- Website:

http://www.solanocounty.com/depts/rm/delta_programs/cache_slough_complex_h abitat_conservation_plan.asp Agenda Item 4D, slide 54



Water Assurances Summary



- The HCP is a critical tool in providing assurances for water intake owners
- Additional tools are required
- The importance of CVFPB to consider agricultural sustainability



4D. Landscape-Scale Actions – Efforts to Develop Multi-Benefit Projects and Address Barrier Issues

Agricultural Sustainability

Presented by: Elisa Sabatini, Yolo County Misty C. Kaltreider, Solano County



Conceptual Model to Promote Agricultural Sustainability/Productivity

Strong System Resiliency / Multi-benefit Projects

- Integrating Agricultural & Environmental Land Uses
 - Value-based Projects to Improve Land Quality (Flood Protections & Increase Agricultural Productivity
- Regional Water Conveyance
- Flood-Managed Aquifer Recharge (MAR)
- Water Transfers
- Water Diversion

High Agricultural Sustainability

Coordinated Environment of Federal and State Policies and Regulations

Chaotic Environment of Federal and State Polices and Regulations

Low Agricultural Sustainability

Infrastructure

Land Use

- Levee MaintenanceDrainage and Water
- Infrastructure
- Local Transportation

Assurances

Water Reliability

- Operation and Maintenance
- Right to Farm

Weak System Resiliency / Single Purpose Projects



Land Use

Integration of Agricultural and Environmental Land Uses

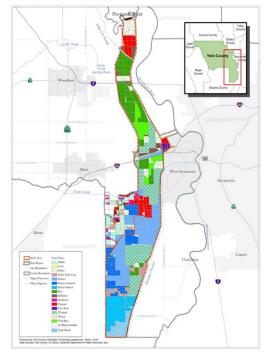
Value-based projects to improve land productivity







Figure 6. Agricultural Land Use, Yolo Bypass 2009









Infrastructure

Levee Maintenance

Drainage and Water Supply Infrastructure

Local Transportation

Recreation









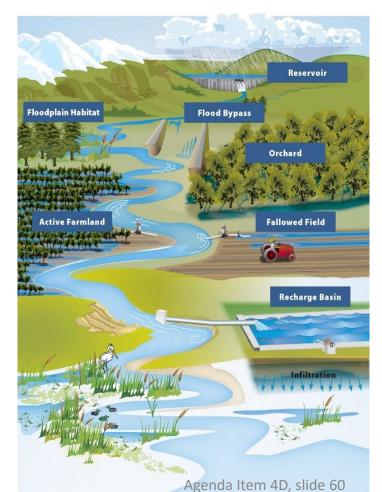
Water Reliability

Regional Water Conveyance

Flood-Managed Aquifer Recharge (MAR)

Water Transfers

Water Diversions







Assurances

Operation and Maintenance

Buffers between restoration and

agricultural lands

Right to Farm



4D. Landscape-Scale Actions – Efforts to Develop Multi-Benefit Projects and Address Barrier Issues

Operations & Maintenance

Presented by: Ric Reinhardt, LSDN



YB/CS O&M Workgroup Overview

The focus of the O&M Workgroup is to develop strategies that account for ecological uplift from implementing the program of actions that will <u>avoid or minimize the need for repetitive mitigation for ongoing OMRR&R activities</u>.

We closely collaborate with the Programmatic 408 Workgroup and the Hydrology & Hydraulics Workgroup to synchronize efforts and avoid duplication.

Funding for this effort initially provided by DWR and SAFCA – continuing efforts are funded by DWR and the Lower Sacramento/Delta North Regional Flood Management Planning contract.



YB/CS O&M Workgroup Progress

- Efforts resulting in direct collaboration with state and federal regulatory agencies, implementing agencies, and various stakeholders.
- Current O&M Workgroup deliverables include the following:
- Draft White Paper on Definition of Program Boundary
- Draft White Paper on Potential Changes in Land Use, Habitat, and Roughness
- Draft White Paper on OMRR&R Environmental Permitting
- Support to 408 Workgroup and H&H Workgroup with draft crosswalk table to establish template for land use, habitat, and roughness in project descriptions
- Support with outreach to proposed project leads



YB/CS O&M Workgroup Overview

- Additional current emphasis is placed upon developing detailed project descriptions for the proposed projects to be included in the Programmatic 408 application.
- This effort will result in "proxy" projects to assist in defining the potential changes in hydraulics (ability to contain and convey flow) and demonstrate potential for ecological uplift.



YB/CS O&M Workgroup Overview

- Next steps involve the following:
 - Distill data from proxy projects
 - Finalize White Paper to describe permitting strategies
 - Develop Guidance Document for project leads for inclusion of OMRR&R in project-level planning and permitting



4D. Landscape-Scale Actions – Efforts to Develop Multi-Benefit Projects and Address Barrier Issues

Programmatic 408

Presented by: Ruth Darling, CVFPB Eric Tsai, DWR



Presentation Outline

- Master Plan & Programmatic 408 Purpose and Scope
- Process Workflow
- Advancing the Programmatic 408
- Program Criteria
- Potential Projects Map
- Projects Overview
- Key Issues/Challenges
- Next Steps



Background

• USACE E.C. 1165-2-220

- Section 408, Paragraph 10 d. (Options for seeking Section 408 Permission), describes "a long-term or large-scale plan, such as a watershed-based master plan, comprised of the construction of multiple alterations occurring over time."
- CVFPB Letter of No Objection July 2019
 - Board initiated Programmatic 408 review in coordination with USACE



Master Plan Purpose and Scope





Serve as Roadmap for Improved Project Coordination

Refine Projects List Included in Program



Facilitate Prog 408 Request & Inform Partners



Provide a Comprehensive Vision for Program



Describe the Planning Objectives

- Flood Risk Management
- Improved O&M
- Agricultural Sustainability
- Ecosystem Restoration
- Recreation
- Water supply and water quality



Programmatic 408 Purpose and Scope

33 USC 408 (Section 408):

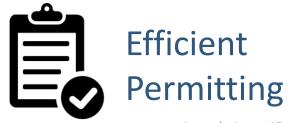
Any use or alteration of a Civil Works project must not be injurious to the public interest or impair the project's usefulness and requires permission from the U.S. Army Corps of Engineers (USACE).

Why a Programmatic 408?





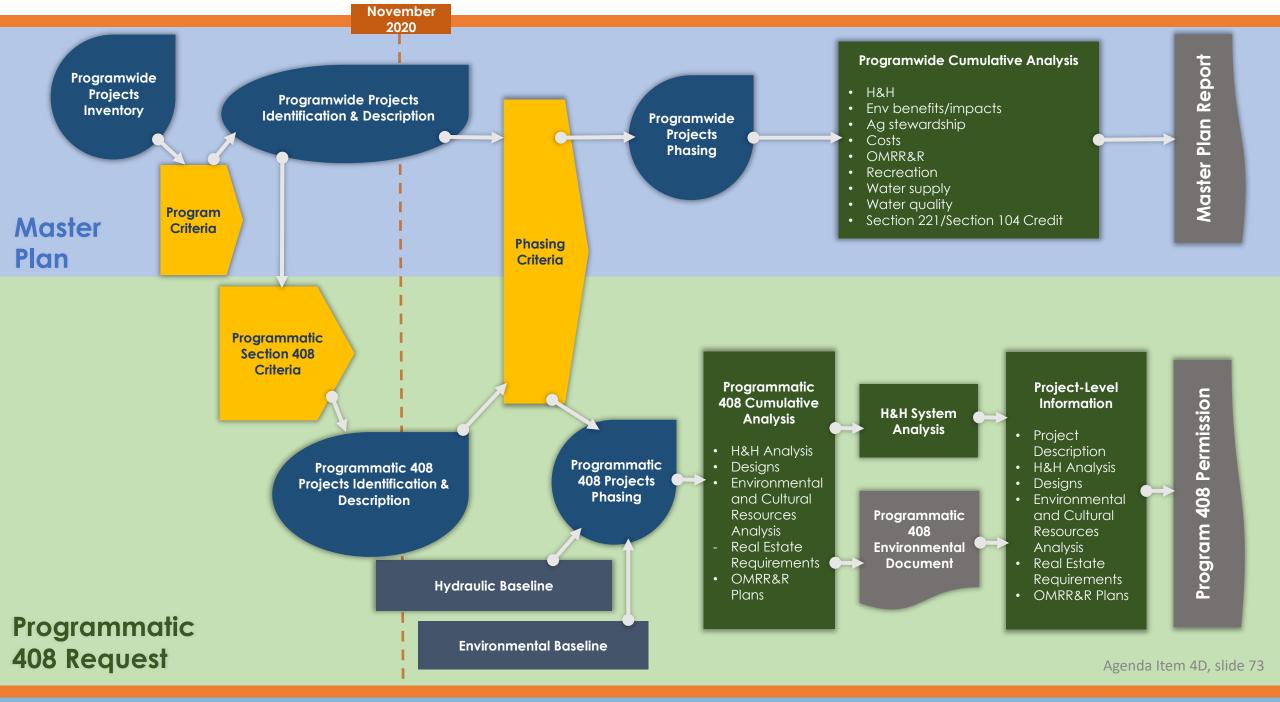
Saves Time & Money





Advancing the Programmatic 408

- Hydrology and Hydraulics (H&H) Work Group
 - H&H baseline and analysis
- Environmental Work Group
 - Environmental Baseline
 - Environmental Compliance
 - Programmatic Permitting
- Coordination Efforts



Revised June 2, 2020



Program Criteria

- Initially screened 45+ Projects down to ~20 projects
- Program Criteria
 - Contributes to at least one of the YB/CS Program goals and objectives
 - Located within or has effects within the YB/CS Complex
 - Expected to be constructed after July 2019



Project Table (Individual 408)

Project	Flood Risk Management	Ecosystem	Water Supply and Multi- Benefits	1-3 Years	3-7 Years	7+ Years
Tule Canal Agricultural Crossing / Water Control Structure Improvements; Local Agricultural Crossing Improvements		Primary Objective	Primary Objective	Proposed Phasing		
Lower Elkhorn Basin Levee Setback Project	Primary Objective	Primary Objective		Proposed Phasing		
Lookout Slough Tidal Habitat Restoration and Flood Improvement Project (Proposed)	Primary Objective	Primary Objective		Proposed Phasing		
Yolo Bypass Salmonid Habitat Restoration and Fish Passage Structure (Big Notch)		Primary Objective		Proposed Phasing		
Lower Yolo Ranch Restoration Project		Primary Objective		Proposed Phasing		



Project Table (Programmatic 408)

Proposed Project	Flood Risk Management	Ecosystem	Water Supply and Multi- Benefits	1-3 Years	3-7 Years	7+ Years
Prospect Island Restoration Project		Primary Objective		Proposed Phasing		
Little Egbert Tract Multi-Objective Project	Primary Objective	Primary Objective			Proposed Phasing	
Nigiri 2.0		Primary Objective			Proposed Phasing	
West Side Levee Improvements	Primary Objective					Proposed Phasing
West Sacramento Rail Relocation (Tule Levee)			Primary Objective			Proposed Phasing
Upper Elkhorn Floodplain Multi-Objective Project	Primary Objective	Primary Objective				Proposed Phasing
Step Levee Modification	Primary Objective	Primary Objective				Proposed Phasing
Putah Creek Restoration		Primary Objective				Proposed Phasing
Fremont Weir Expansion/Extension	Primary Objective					Proposed Phasing
Yolo Rail Realignment Project			Primary Objective			Proposed Phasing
Cache Creek Settling Basin Multi-Objective Project	Primary Objective	Primary Objective	Primary Objective			Proposed Phasing
Conaway Setback Levee Project	Primary Objective		Primary Objective			Proposed Phasing
Deep Water Ship Channel Improvements	Primary Objective					Proposed Phasing
North Bay Aqueduct Alternative Intake			Primary Objective			Proposed Phasing
Tule Canal Restoration		Primary Objective	Primary Objective			Proposed Phasing

Fremont Weir Expansion/Extension

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

* TEELEVEL

Cache Creek Settling Basin Multi-Objective Project Nigiri 2.0

Woodland

Conaway Setback Levee Project

Nigiri 2.0

Upper Elkhorn Basin Levee Setback

BBBB

Tule Canal Restoration

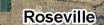
> Lower Elkhorn Basin Levee Setback

> > Tule Canal Agricultural Crossing / Water Control Structure Improvements; Local Agricultural Crossing Improvements

> > > Sacramento

80





West Sacramento Deep Water Ship Channel Improvements

> North Bay Aqueduct Alternative Intake

> > 6

R

1 to 3-year Projects

Sacramento

American River

50

Tule Canal Agricultural Crossing / Water Control Structure Improvements; Local Agricultural Crossing Improvements* Lower Elkhorn Basin Levee Setback * Lookout Slough Tidal Habitat Restoration and Flood Improvement Project* Yolo Bypass Salmonid Habitat Restoration and Fish Passage Structure (Big Notch)* Lower Yolo Ranch Restoration Project* Prospect Island Restoration Project

3 to 7-year Projects

Little Egbert Tract Multi-Objective Project Nigiri 2.0

7-year + Projects

APP -	Lower West Side Levee Improvements
1	West Sacramento Rail Relocation (Tentative)
the low	Upper Elkhorn Basin Levee Setback
「日本」	North Delta Liberty Island Stair Step Levee
a state	Project 78
State of the state	Putah Creek Restoration
S Nume	Fremont Weir Expansion/Extension
A Distant	Yolo Rail Realignment Project (Tentative)
Constant of	Cache Creek Settling Basin Multi-Objective

Dixon

Lower West Side Levee Improvements

Davis

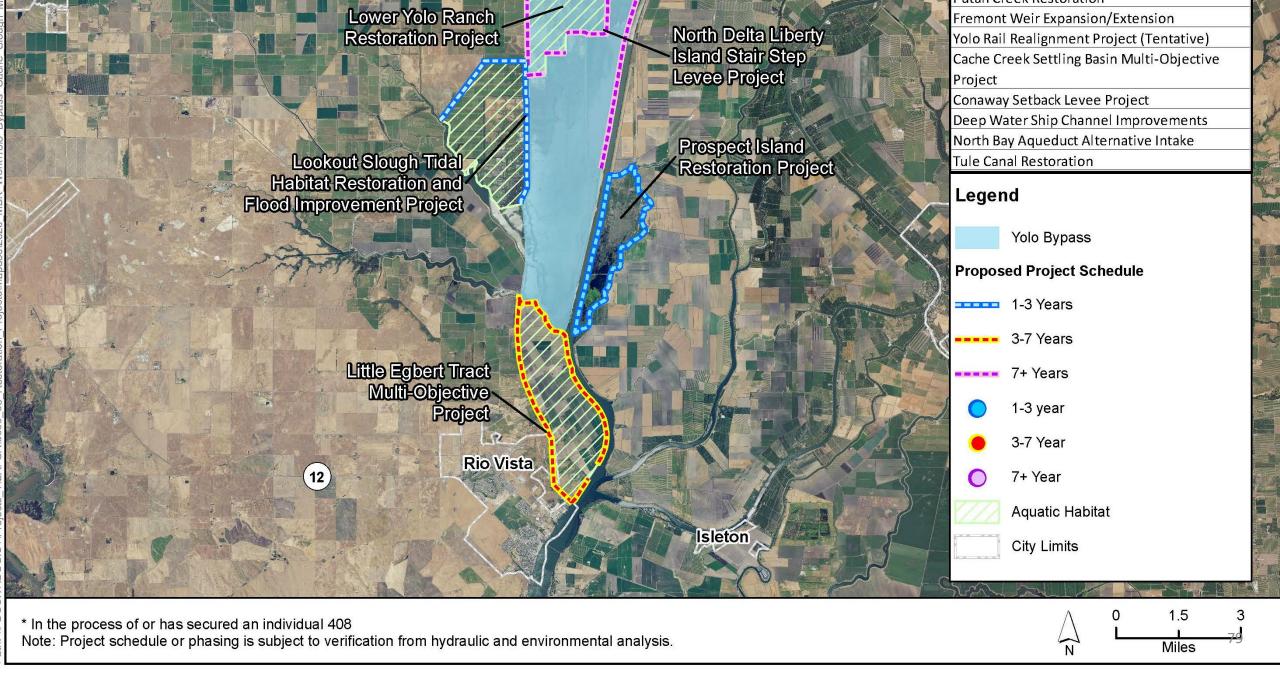
Putah Creek

Restoration

Lower Yolo Ranch Restoration Project

North Delta Liberty

acramento Deep Water Ship Channel



Yolo Bypass/Cache Slough Master Plan (Draft - November 2020)



Key Issues/Challenges

- First Programmatic 408 in the Nation
- Lack of detail in many project descriptions
- Establishment (and preservation) of hydraulic and environmental baselines



Immediate Next Steps

- Approval of hydraulic model and baseline
- Development of environmental baseline
- Completion and approval of Master Plan technical analysis scope
- Increase project specificity; consider potential agricultural sustainability and habitat elements as we advance implementation



Discussion





Yolo Bypass-Cache Slough Partnership Members