

Opportunities for Flood Risk Reduction and Habitat Enhancement in the Lower Sacramento/North Delta Region

Tim Washburn
Sacramento Area Flood Control Agency
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Project Planning in Collaboration with Government Entities (USACE - July 2007)

- Partner with others to incorporate multiple perspectives
- Use systems approaches to understand the connections between natural and man-made systems
- Analyze water resources problems at larger scales such as the watershed
- Strive to achieve multiple goals and functions using water and related resources in a balanced manner

Identifying the National Interest Plan using Collaboration and the Planning Process

- **National Interest Plan**, a plan developed in collaboration with other Federal and non-Federal entities; can be traditional USACE plans (NED Plan, NER Plan, or NED/NER Plan), or plans reflecting other Federal agency authorities/interests/contributions, or any combination of such plans.
- Plans can include not only USACE components, e.g., conveyance measures, navigation channels, restoration sites, but also collaborator components, e.g., urban renewal, transportation improvements which address collaborator objectives
- Collaborators may formulate their own components to address their objectives which may or may not overlap with USACE objectives and which may include contributions to social well-being, such as life, health, and safety, and regional economic development.
- Collaborator components may not be subject to the same evaluation criteria or economic justification as USACE components if they are independent and serve only collaborator purposes.
- Collaborator components can be spatially proximate to USACE components and function either separately or in a systemic way with USACE components or components can be formulated that address both collaborator and Corps objectives to serve multiple purposes.

National Interest Plan Conceptual Model

Plan Element	Plan Objectives	Study Process/Measures Evaluated	Alternatives
National Economic Development	<p>Augment the flood risk reduction accomplishments of the Yuba Basin, Sutter Basin, Natomas, American River and West Sacramento GRR's by increasing the conveyance capacity of the Yolo Bypass</p> <p>Restore/enhance fish vegetation and wildlife habitat values in the Yolo Bypass</p>	<p>Various levee setback, channel modification and ecosystem restoration measures developed and evaluated by DWR as part of the Yolo Bypass Feasibility Study process</p>	<ul style="list-style-type: none"> - Expand the Fremont Weir in a manner that complements the planned expansion of the Sacramento Weir and Bypass and increase the conveyance capacity of the Yolo Bypass by implementing one or more levee setback configurations at several locations in the bypass; diverting flood flows to the Sacramento Deep Water Ship Channel; and degrading limited height levees in the lower bypass - Restore/enhance fish vegetation and wildlife habitat values through landscape improvements along the Tule Canal/Toe Drain and in levee setback areas.
2009 Biological Opinion	<p>Reduce migratory delays and loss of fish at Fremont Weir and other structures in the Yolo Bypass</p> <p>Restore floodplain fisheries rearing habitat</p>	<p>Variety of water and drainage infrastructure improvements and inlet/outlet structures at various locations in the Yolo Bypass developed and evaluated by BOR/DWR as part of the 2009 Biological Opinion planning process</p>	<ul style="list-style-type: none"> - Improve adult fish passage through the Yolo Bypass by improving the weir structure at the mouth of the Colusa Drain, upgrading agricultural crossing structures along the Tule Canal, and modifying the existing fish ladder and low flow outlet/inlet structure at the Fremont Weir. -Construct new low flow inlet/outlet structures at one or more locations (Fremont Weir, Sacramento Weir, and Elkhorn Basin) and implement related water and drainage infrastructure improvements to enhance/restore floodplain fisheries rearing habitat in the Yolo Bypass.
Regional Economic Development	<p>Reduce the risk of flooding in the floodplain corridor adjoining the Yolo Bypass in a manner that promotes agricultural sustainability and regional economic development</p>	<p>Various structural and non-structural urban, small community and rural flood protection measures, agricultural sustainability policies, and levee operation and maintenance provisions developed and evaluated by local flood management, land use, and water resource management agencies as part of the Lower Sacramento/North Delta regional flood management process</p>	<ul style="list-style-type: none"> -Relocate Sierra Northern rail line to west side of Yolo Bypass in a manner that protects the City of Woodland from a failure of the Yolo Bypass west levee. - Implement floodwall and/or levee improvements to protect the communities of Knights Landing and Rio Vista at the northern and southern ends of the Yolo Bypass. - Protect agricultural areas adjacent to the Yolo Bypass by strengthening rural levees in the lower Yolo Bypass and improving operation and maintenance of existing bypass levees. - Work with FEMA to implement appropriate floodplain management policies in the reclamation districts around Clarksburg

