

Memorandum

To: Jacques DeBra, Chair, WRA Technical Committee

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From: Gerrit Platenkamp and Steve Chainey, EDAW

Date: February 23, 2007

Subject: Yolo County IRWMP Implementation Strategy Chapter

While assisting Yolo County and the City of West Sacramento with preparing the text for the Sacramento River West Bank Integrated Project, we noticed that the current structure of Chapter 6 of the IRWMP does not work well. We made the text of the Sacramento River section conform to the current outline of the IRWMP, as requested by the Technical Committee, but we would like to offer some recommendations for an improved structure.

We would like to suggest that the section on integrated actions (currently Section 6.3.2) should be converted to a separate Chapter 7. This will make the integrated actions more prominent and more easily identified in the document's Table of Contents. The outline for Chapters 6 and 7 would then be as follows:

6 Implementation Strategy

- 6.1 Purpose
- 6.2 Institutional Structure
- 6.3 Funding Opportunities
- 6.4 Environmental and Regulatory Compliance
- 6.5 Public Outreach
- 6.6 Items for Early Action

7 Action Implementation

- 7.1 Foundational Actions
- 7.2 Davis-Woodland Water Supply Project
- 7.3 Reclamation District No. 2035 Sacramento River Diversion and Conveyance Project
- 7.4 Cache Creek Integrated Project
- 7.5 Dunnigan Integrated Project
- 7.6 Sacramento River West Bank Integrated Project
- 7.7 Putah Creek Integrated Project
- 7.8 Yolo Bypass Integrated Project
- 7.9 Yolo County Sloughs, Canals, and Creeks Management Program

We believe that the prerequisite tasks and schedules (now included in Figures 6-4 to 6-17) should be made part of the project descriptions, where appropriate. For most proposed actions these prerequisite tasks and schedules are either too general or too speculative. Although including these tasks and schedules was a good idea to begin with, it turns out that most proposed actions are not well enough developed to allow for the development of prerequisite tasks. Instead, a more general discussion of the overall implementation process could be included in the IRWMP, including the various required stages of project planning, design, environmental compliance, etc., for example in Section 6.6.

IA5. Sacramento River West Bank Integrated Project

Overview

The Sacramento River West Bank Integrated Project (SRWBIP) is designed to improve the management of public safety infrastructure and public benefits of water resources on the west side of the Sacramento River in Yolo County. The SRWBIP integrates actions that meet IRWMP objectives relating to flood management, aquatic and riparian ecosystem enhancement, recreation, water supply and water quality issues. The actions incorporated in the SRWBIP apply to the geographic sub-area that includes the portion of the west bank and levee of the Sacramento River in Yolo County, the City of West Sacramento, Knight's Landing and Clarksburg, and the basin surrounded by levees between the Deep Water Ship Channel and the Sacramento River.

The Sacramento River, the largest river in California, forms the eastern border of Yolo County. The meandering, single-channel river is 327 miles long and drains a watershed of 24,000 square miles (Mount 1995). Levees and channels have significantly altered the original pattern of the Sacramento River, but major portions in the lower reaches still retain their meandering characteristics. Much of the Sacramento River's water is pumped through the Sacramento-San Joaquin Delta to supply irrigation water to San Joaquin Valley farmers and drinking water to residents of Southern California. Yolo County contains a portion of the Delta south of Highway 80.

Flood Management

Yolo County's Sacramento River levees protect the City of West Sacramento, the towns of Knights Landing and Clarksburg, and important agricultural lands. In addition, the Fremont Weir, the Sacramento Weir, and the Yolo Bypass in Yolo County help provide flood protection to the City of Sacramento and other communities that rely on the protection of the Sacramento River Flood Control Project. As a result of a recently improved technical understanding of levee stability and concern resulting from the impact of two major floods in the past 20 years, the level of protection that these levees provide is increasingly in doubt. Decision makers realize that careful management of the floodway is essential to the protection of life and property, including continuous improvement and maintenance of levees, control of bank erosion where it threatens levees, management of vegetation near levees, maintenance of levee accessibility, and improved control of the general uses of the floodway (Jones and Stokes 2006).

Aquatic and Riparian Ecosystem Enhancement

The reach of the Sacramento River that passes through Yolo County has been studied far less from an ecosystem perspective than other portions of the river, in part because the quality of fish and wildlife habitat is not as high as in other areas. Decades of efforts to provide flood protection to the Sacramento region has resulted in a highly channelized, heavily rip-rapped reach in which vegetation was historically removed to facilitate the movement of flood waters. Fish species found in the Sacramento River in the vicinity of Yolo County and listed for protection under the California and/or Federal Endangered

Species Acts include winter-run and spring-run Chinook salmon, steelhead, and the Delta smelt. Biologists also are concerned about sturgeon populations. Spawning of adult Chinook salmon and steelhead historically was not common in this reach because of the absence of suitable habitat. The potential to improve riparian habitat consistent with flood management goals should be explored.

Recreation

The Sacramento River provides the public with a variety of outdoor recreational opportunities, including boating, water skiing, fishing, hunting, nature study, picnicking, and hiking. Yolo County provides public access to the Sacramento River at three major river access facilities, including Knights Landing, Elkhorn Regional Park, and Clarksburg. West Sacramento also provides public access and has plans for additional public access in the future as envisioned in the Sacramento Riverfront Master Plan the 2003 Parks Master Plan. The Delta Protection Commission's Land Use and Resource Management Plan for the Primary Zone of the Delta recommends enhancement of public access opportunities in the Delta, including Yolo County.

Water Supply and Water Quality

The Sacramento River is a source of water for portions of Yolo County. Two other integrated projects: the Davis-Woodland Water Supply Project and the Reclamation District 2035 Sacramento River Diversion and Conveyance Project address important aspects of this water supply function. These two water supply projects are discussed in other sections of the IRWMP document and implementation strategy, and are not part of the SRWBIP. However, local water supply and the quality of surface water are addressed in this integrated project.

Lead Agency, Partners, and Stakeholders

Planning and implementing tasks associated with the Sacramento River will involve several federal, state, and local agencies. From the standpoint of the IRWMP, the County will serve as the Lead Partner for actions within the unincorporated territory of Yolo County. The City of West Sacramento will be the Lead Partner for actions within the incorporated boundaries and related to the municipal services of the City, and for actions associated with the Sacramento Bypass levees, Yolo Bypass east levees, South Cross levee, and Deep Water Ship Canal and associated levees. Collaborating partners in various elements of the SRWBIP and stakeholders include the following:

➤ *Partners*

City of West Sacramento

Yolo County

Reclamation District Numbers 108, 87, 730, 1600, 827, 785, 537, 900, 999, 765, 307, and 150

➤ **Stakeholders**

Town of Clarksburg	State Reclamation Board
Town of Knights Landing	California Department of Fish and Game
Delta Protection Commission	California Department of Water Resources
Sacramento Area Flood Control Agency	U.S. Army Corps of Engineers
Sacramento River Corridor Planning Forum	Federal Emergency Management Agency
	N.O.A.A Fisheries
	U.S. Fish and Wildlife Service

Integration and Prioritization Method

Actions within the Sacramento River West Bank Integrated Project were integrated and prioritized according to a stakeholder-mediated process that was led by Yolo County and the City of West Sacramento. This separate process for the Sacramento River West Bank Integrated Project was necessary because of the unique issues and geography of the project area, where the main water management concerns relate to potential flooding by the Sacramento River. This process also provided communities along the Sacramento River an additional opportunity for participation, where there had been limited involvement in the overall IRWMP process.

The integration and prioritization process consisted of the following five steps:

1. *data collection*: collect sufficient information from public agencies about potential actions to allow integration and prioritization;
2. *integration*: combine individual actions into integrated projects when a substantial improvement in meeting IRWMP objectives would be obtained;
3. *prioritization*: develop an initial prioritization of actions based on their potential to meet IRWMP objectives, Proposition 50 Program preferences, and Statewide Priorities;
4. *stakeholder and public participation*: obtain stakeholder- and public input on integration and prioritization and adjust integration and prioritization of actions as needed based on this input; and
5. *implementation*: develop a strategy for implementing the Sacramento River West Bank Integrated Project.

Step 1. Data Collection

Information was collected on actions that had been suggested by agency representatives, the WRA and the public. Although brief descriptions and information about the relevant water management categories and geographic area were collected previously, this information was generally not sufficient to allow meaningful integration and prioritization of actions. The additional information was collected using an Action Information Form. The following additional information was solicited from agencies that originated the actions, or from the most appropriate agencies when actions were suggested by the public:

- Project goals and objectives
- Related IRWMP objectives
- Project benefits
- Impacts of not implementing the project
- Estimated project cost
- Available matching funds
- Project timing
- Project readiness

Although most actions that were identified in the October 2006 draft IRWMP were included in the integration and prioritization process, insufficient information or sponsorship was obtained for a number of actions. The latter actions were tabulated for future consideration, and were not considered in the current integration and prioritization process.

Step 2. Integration

Actions were evaluated for their potential to be integrated with other actions. Actions were combined into clusters of multi-objective integrated projects that:

1. **Complement other actions** that would more likely meet one or more IRWMP objectives in combination than individually.
2. **Relate geographically** with other actions that would be implemented in the same area, in close proximity to each other, or in some other spatially related way, e.g., along the same water way.
3. **Increase public and agency support** in combination resulting in greater public and/or agency support than individually (e.g., individual actions may each be supported by different segments of the public or by different agencies).
4. **Improve efficiency** by using fewer resources when implemented in combination than individually.
5. **Reduce conflict** through combinations where independent implementation would lead to greater conflict, e.g., individual actions may each benefit opposing interests.
6. **Reduce adverse impacts** through combinations that would have fewer or smaller adverse impacts than individually (e.g., one action may compensate for the impacts of another action, or the combination of actions result in a net benefit).
7. **Improve the likelihood of funding** through combinations that would better match grant funding criteria than individual actions (e.g., the

integrated action may fit the selection criteria for Propositions 1E, 50, 84 or other grant programs better than the individual component actions).

For example, a levee improvement project, an aquatic habitat enhancement project and a river recreation project could be integrated if they were planned in the same area. Submerged (“instream”) woody material, which provides shelter for juvenile salmon, and river recreation improvements, including a boat ramp or river access trail, could be included in the levee design. This integration would result in a multi-objective levee improvement project with public safety benefits to residents and businesses living behind the levee, benefits to salmon populations and river ecosystem functions, and benefits for river recreation and public access.

Conversely, unconstrained integration of actions could bundle too many individual actions, combine inherently disparate purposes, or link impractical or non-productive implementation elements (e.g., timeframe, mobilization, site impacts, administration, funding, etc.). Individual actions were not integrated where the resulting project would be unwieldy, trigger a complex and time-consuming web of regulatory compliance, or if too many actions would define a single project or program. This consideration was used in some cases to limit the number of actions that were combined.

Not all actions were integrated into clusters. Some actions already had multiple objectives and integration was not necessary. Two actions did not meet the integration rationale for combination with other actions and remained separate.

Step 3. Prioritization

After actions were integrated, when appropriate, the resulting integrated projects and remaining individual actions were prioritized through a two step process. The first step scored the performance of integrated and non-integrated projects on the bases of criteria derived from the IRWMP, known funding programs, and statewide priorities:

- **Responsiveness to the Yolo County IRWMP Objectives** – The WRA felt that it was important that the proposed actions would meet one or more Yolo County IRWMP objectives. In addition to the overall IRWMP objectives listed in “Section 2.1 Goals and Objectives”, specific objectives for the Sacramento River West Bank Integrated Project were formulated and used as prioritization criteria (see Table 6-1).
- **Preferences of the Known Funding Programs** – The Proposition 50 program funded the development of the IRWMP, and the program’s project preferences were therefore considered appropriate as prioritization criteria. Implementation of projects in the IRWMP could also be eligible for funding under Propositions 84 and 1E, however project preferences under these proposition grant programs will not be available until September 2007.

- **Statewide Priorities** – The statewide priorities formulated by the California Department of Water Resources (DWR) and State Water Resources Control Board (SWRCB) listed in the IRWMP Program guidelines were considered appropriate prioritization criteria because of the regional character of the IRWMP and the funding provided to the program through Proposition 50. For more information on the statewide priorities see “Section 2.2 Statewide Priorities”.

Tables 6-1 to 6-3 show how the objectives, preferences and priorities, respectively, were translated into consolidated performance criteria.

The purposes of consolidated performance criteria were to acknowledge the substantial consistency between the different sets of objectives and focus the evaluation on the actual breadth of functions and outcomes. These consolidated criteria are similar to those used in other IRWMPs, notably the North Coast IRWMP and the Bay Area IRWMP.

Each component element of an action was tested for performance according to each of the 28 criteria. An action component was credited for contributing to or meeting performance criteria. Each action received overall performance credit for a criterion if a component element was credited under that criterion.

Similarly, integrated projects received performance credit for each action that received criterion credit. Given the different number of actions in each of the integrated projects, the score for performance credit was normalized for each criterion as follows:

- “no action credit”: score = 0,
- “1 or few action credit”: score = 1,
- “some actions credit”: score = 2,
- “all actions credit”: score = 3.

The normalized scores for the performance criteria were added to determine IRWMP criteria total scores.

The second scoring step was based upon a set of criteria that consider situational factors unique to the project or localized conditions:

- Project Urgency (including immediate needs to avoid loss of life and preserve human safety, imminent gain or loss of funding, compelling opportunistic conditions, etc.)
- Total Project Integration (consideration for integrating multiple actions)
- Lead Agency Capacity for Implementation
- Project Readiness
- Status of Funding (including fund acquisition and allocation, and relation of available funding to total project cost)

Of the several considerations that represent situational or local factors, the uniformly recognized and overwhelming importance of life and safety warrants single-function

integration and stand-alone priority. Several actions crucial to life and safety were integrated into an immediate-priority project. These actions also contribute to a set of multi-function projects, integrated by proximate location and timing, or opportunistic implementation. The multi-function integrated projects were then given a score for relative performance on the five considerations. The score for other considerations was summed for each of the multi-function projects and recorded along with the evaluation rationale. The total project score for the other considerations was doubled to establish a scale comparable to the IRWMP criteria score. The sum of IRWMP criteria score and weighted score for other considerations determined the final IRWMP priority for each integrated project. The largest score was assigned high IRWMP priority. The lowest score was assigned a lower IRWMP priority. Scores between the high and low scores were assigned medium IRWMP priority.

Step 4. Stakeholder and Public Participation

The overall SRWBIP and the integration and prioritization methods were presented to a group of invited stakeholders on February 5, 2007, in West Sacramento. The meeting summary from this meeting is provided in Appendix X, including a list of attendees and their affiliations. Input received during and after the meeting from stakeholders indicated that actions taking place in the Delta should be added to or incorporated into existing Sacramento River West Bank Actions, and that consistency with several recent Delta programs should be incorporated into the prioritization criteria. As a result of this input, consistency with Delta Protection Commission standards and programs was included in the prioritization criteria.

The SRWBIP and integration and prioritization process were also presented at a public workshop held on February 8, 2007, in West Sacramento. The meeting summary for this meeting is also in Appendix X, including a list of attendees. Feedback received during and after the public workshop indicated that actions relating to flood hazards and protection of life and private property from flood hazards should be the highest priority among the Sacramento River West Bank Actions. Many participants also advocated for expanded or improved river access, trails, and recreation facilities. This feedback was incorporated into the Sacramento River West Bank Action prioritization process.

Step 5. Implementation

During implementation project priorities will be revisited to consider issues which were not certain or changes that were not anticipated at the time the IRWMP was completed. This step is essential to ensure that implementation is properly aligned with changes in:

- Emergencies
- Additional Actions For Project Integration
- Physical Conditions
- Funding
- Regulatory Requirements, Limitations or Opportunities
- Socio-economic Values

Table 6-1. Relationship between IRWMP Objectives and Prioritization Criteria

	Objectives	Criteria
1	To ensure open and frequent communication with the public.	The action contributes to open and frequent communication with the public.
2	To integrate water resource planning and land use planning.	The action contributes to integration of water resource planning and land use planning.
3	To help disadvantaged communities with basic water infrastructure improvements.	The action contributes to basic infrastructure improvements that benefit disadvantaged communities.
4	To integrate actions to ensure multiple benefits, including recreation and aquatic and riparian ecosystem enhancement.	The action contributes to integration of actions to ensure multiple benefits, including recreation and aquatic and riparian ecosystem enhancement.
5	To provide a reliable and sustainable surface water supply from a variety of sources.	The action contributes to a reliable and sustainable surface water supply from a variety of sources.
6	To manage the county's ground water resources to provide water purveyors and individual users with a sustainable, reliable, high quality supply of ground water to serve urban, agricultural, environmental and other uses during normal, above normal and prolonged drought periods.	The action contributes to management of the county's ground water resources.
7	To conjunctively use ground water and surface water to maximize the efficiency, sustainability and value of the county's surface and ground water.	The action contributes to the conjunctive management of surface and groundwater supplies.
8	To develop state-of-the-art urban and agricultural water use efficiency programs that meet statewide guidelines and that substantially and measurably reduce water use throughout the county.	The action contributes to the development of state-of-the-art urban and agricultural water use efficiency programs.
9	To meet state, federal, or local standards for water quality protection, including Total Maximum Daily Loads, in all surface and ground water resources, working closely with water purveyors, landowners, businesses, citizens, state, federal and local agencies, and non-profit organizations.	The action contributes to meet state, federal, or local standards for water quality protection, including Total Maximum Daily Loads.
10	To develop continuous water quality monitoring, management and protection programs, including institutional capacity, to ensure that water quality continues to meet	The action contributes to development of continuous water quality monitoring, management and protection programs.

Table 6-1. Relationship between IRWMP Objectives and Prioritization Criteria

	Objectives	Criteria
	standards for surface and ground water sources.	
11	To reduce flood risk in all areas of the county within 20 years, taking into consideration resource constraints and environmental impacts.	The action contributes to reduce flood risk in all areas of the county within 20 years.
12	To become a model area for flood management approaches that reduce flood risk, protect and enhance the riparian environment, and improve recreational opportunities.	The action contributes to the area becoming a model area for flood management approaches that reduce flood risk, protect and enhance the riparian environment, and improve recreational opportunities.
13	To develop innovative storm water management requirements, guidelines and best practices that enable the county to meet state and federal permit requirements, reduce the risk of flooding, improve the quality of storm water runoff, and reduce impacts to surface water resources.	The action contributes to development of innovative storm water management requirements, guidelines and best practices.
14	To enhance the aquatic and riparian environment in priority areas, consistent with the emerging Yolo County NCCP/HCP, through ongoing, comprehensive programs with dedicated sources of funding.	The action contributes to enhance the aquatic and riparian environment in priority areas, consistent with the emerging Yolo County NCCP/HCP.
15	To become a model area for integrating agricultural production and habitat conservation through the use of sustainable agricultural water use practices and habitat enhancement incentives that are compatible with agricultural production.	The action contributes to the area becoming a model for integrating agricultural production and habitat conservation.
16	To utilize a variety of tools to achieve a sustainable and effective monitoring, management and reporting process for priority aquatic and riparian habitat areas.	The action contributes to utilization of a variety of tools to achieve a sustainable and effective monitoring, management and reporting process for priority aquatic and riparian habitat areas.
17	To improve and expand water-related recreational programs, facilities, and opportunities.	The action contributes to improvement and expansion of water-related recreational programs, facilities, and opportunities.
18	To become a model area for integrating water-related recreational actions with other actions that meet water management objectives, such as flood management, water supply, and habitat enhancement.	The action contributes to the area becoming a model for integrating water-related recreational actions with other actions that meet water management objectives.

Table 6-1. Relationship between IRWMP Objectives and Prioritization Criteria

	Objectives	Criteria
19	To eliminate or significantly reduce pollution in impaired waters and sensitive habitat areas, including areas of special biological significance.	The action contributes to eliminating or significantly reducing pollution in impaired waters and sensitive habitat areas.
20	To reduce conflict between water users or resolve water rights disputes, including interregional water rights issues.	The action contributes to reducing conflict between water users or resolve water rights disputes.
21	To implement RWQCB Watershed Management Initiative Chapters, plans, and policies.	The action contributes to implementing Watershed Management Initiative Chapters, plans, and policies
22	To implement the SWRCB's Non-point Source (NPS) Pollution Plan.	The action contributes to implementation of SWRCB's Non-point Source (NPS) Pollution Plan.
23	To assist in meeting Delta Water Quality Objectives.	The action contributes to assisting in meeting Delta Water Quality Objectives.
24	To implement the recommendations of the floodplain management task force, desalination task force, recycling task force, or state species recovery plan.	The action contributes to implementing the recommendations of the floodplain management task force, desalination task force, recycling task force, or state species recovery plan.
25	To address environmental justice concerns.	The action contributes to addressing environmental justice concerns
26	To assist in achieving one or more goals of the CALFED Bay-Delta Program.	The action contributes to achieving one or more goals of the CALFED Bay-Delta Program.
27	Implement Land Use and Resource Management Plan for the Primary Zone of the Delta	The action is consistent with Delta standards and programs.

Table 6-2. Relationship between Proposition 50 Program Preferences and Prioritization Criteria

	Program Preferences	Criteria
1	Include integrated projects with multiple benefits.	The action has benefits within benefits multiple water management categories.
2	Support and improve local and regional water supply reliability.	The action contributes to water supply reliability.
3	Contribute expeditiously and measurably to the long-term attainment and maintenance of water quality standards.	The action contributes expeditiously and measurably to the long-term attainment and maintenance of water quality standards.
4	Eliminate or significantly reduce pollution in impaired waters and sensitive habitat areas, including areas of special biological significance.	The action contributes to the elimination or significant reduction of pollution in impaired waters and sensitive habitat areas, including areas of special biological significance.
5	Include safe drinking water and water quality projects that serve disadvantaged communities.	The action contributes to safe drinking water and water quality in disadvantaged communities.
6	Include groundwater management and recharge projects that are located 1) in San Bernardino or Riverside counties; 2) outside the service area of the Metropolitan Water District of Southern California; and 3) within one mile of established residential and commercial development.	<i>Not used, does not apply.</i>

Table 6-3. Relationship between Statewide Priorities and Prioritization Criteria

	Statewide Priorities	Criteria
1	Reduce conflict between water users or resolve water rights disputes, including interregional water rights issues.	The action contributes to reducing conflict between water users or resolving water rights disputes, including interregional water rights issues.
2	Implementation of Total Maximum Daily Loads that are established or under development.	The action contributes to meeting TMDLs.
3	Implementation of Regional Water Quality Control Board (RWQCB) Watershed Management Initiative (WMI) chapters, plans, and policies.	The action contributes to implementation of WMI chapters, plans, and policies.
4	Implementation of the SWRCB’s Non-point Source (NPS) Pollution Plan.	The action contributes to reducing non-point source pollution.
5	Assist in meeting Delta Water Quality Objectives.	The action contributes to meeting Delta Water Quality Objectives.
6	Implementation of recommendations of the floodplain management task force, desalination task force, recycling task force, or state species recovery plan.	The action contributes to implementation of the floodplain management task force, desalination task force, recycling task force, or state species recovery plans.
7	Address environmental justice concerns.	The action contributes to addressing environmental justice concerns.
8	Assist in achieving one or more goals of the CALFED Bay-Delta Program.	The action contributes to achieving one or more goals of the CALFED Bay-Delta Program.

Integration and Prioritization Results

Action Information Forms were collected for 31 individual actions (Table 6-4). These included both revisions of actions that were included in the draft IRWMP and new actions. The individual actions included 13 flood management actions, 11 recreation actions, three aquatic and riparian ecosystem enhancement actions, two water quality actions and two water supply actions. Eight actions that were identified in the draft IRWMP were not carried forward as individual actions, because insufficient information was available for these actions, because they had been incorporated in some form in other individual actions, or because implementation of the actions was already funded or substantially under way (Table 6-5).

The two performance scoring steps in the process for setting project priority are presented in Table 6-6 (IRWMP Criteria) and Table 6-7 (Other Local Considerations). The results of integration, performance evaluation, and priority determination are summarized in Table 6-8. One integrated action “Urgent Levee and Other Flood Management Improvements” (UP) was rated as an “immediate” priority, because the protection of life and safety is the most important consideration of Yolo County and City of West

Sacramento. The overarching importance of life and safety warrants single-function integration of urgent flood control actions and immediate priority for implementation. This action integrates eight urgent flood management actions.

The “Sacramento River Flood Management Habitat, and Recreation Improvements” (P1) received a “high” priority. This integrated action advances urgent life and safety improvements and achieves the highest level of multi-function integration. It integrates 10 flood management, aquatic and ecosystem enhancement, and recreation actions.

Five integrated actions received a “medium” priority rating. These include the “Knights Landing Area Project”, “West Sacramento Project”, “Clarksburg Area Project”, “Deep Water Ship Channel Project” and the “Sacramento River Water Quality and Water Supply Project”. These projects generally integrate complementary individual actions within a local geographic area, or in the case of the water quality and water supply project are of fundamental importance to several on-going and pending programs and projects.

Two actions were not integrated and were considered “low” priorities at the time of scoring. They include the “Elkhorn Regional Park Improvement Project” and the “Delta Management Plan”. While there is sufficient lead agency capacity to implement these actions, they either lacked funding, project integration, or urgency.

Implementation

Prerequisite tasks may be required prior to implementation of the integrated actions described here. They may include geotechnical investigations, hydraulic modeling, environmental compliance, engineering design, etc. Unfortunately, some of these activities take months to years to complete. Urgent flood management improvements have immediate priority to protect life and property of the community. There can be no doubt that such urgent priority projects should be implemented immediately. Responsibility of these urgently needed actions along the Sacramento River and Ship Channel lies primarily with the U.S. Army Corps of Engineers, the State Reclamation Board, and the California Department of Water Resources. Local reclamation and levee districts have a shared, but lesser, responsibility as local sponsors and maintaining agencies for state-federal levee protection projects

Planning and implementing water management along the Sacramento River West Bank is an ongoing process. Although available implementation funding from sources such as Propositions 50, 84 and 1E should be pursued whenever appropriate, the water management issues and needs of the community are ongoing and independent of state or federal funding cycles. The stakeholder-based local water management planning and implementation process that was initiated through the IRWMP should be continued into the future. For the SRWBIP, the process was led by Yolo County and the City of West Sacramento, with stakeholder input. In the future, the process should involve focused

stakeholder participation in the form of a Sacramento River West Bank Stakeholder Work Group. This group should include participation of the following entities:

- City of West Sacramento
- Yolo County
- Reclamation Districts
- Private Landowners
- Town of Clarksburg
- Town of Knights Landing
- Delta Protection Commission
- State Reclamation Board
- California Department of Fish and Game
- California Department of Water Resources
- U.S. Army Corps of Engineers

Other local planning processes centered on water management and public safety have benefited from similar work groups, including for example the Yolo Bypass Working Group, Lower Putah Creek Coordinating Committee, the Sacramento River Corridor Planning Forum, and the Lower American River Task Force. These groups have been effective in collaborative planning, obtaining funding and implementing multi-objective projects. Important, ongoing roles for a local Sacramento River West Bank Stakeholder Work Group are to monitor and lobby for yearly progress and funding of state-federal bank and levee protection projects along the west side of the Sacramento River in Yolo County and West Sacramento, and to promote state funding and technical assistance for local geotechnical investigations of potential levee under-seepage risks.

Meanwhile, numerous high, medium and even low priority projects would greatly benefit the community. Therefore, a longer term planning and implementation program of projects with multiple water management and flood risk reduction objectives should be pursued within the more formal structure of a local Work Group. The primary tasks of the WRA can then be to provide a forum for sharing information among local groups, to disseminate information about funding opportunities, and integrate efforts for joint funding applications.

Table 6-4. Individual Actions Considered in the Sacramento River West Bank Integrated Project

Project ID	Project Name	Organization	Summary	Location	Geographic Area	Project Readiness
AR26	Sacramento River Habitat Enhancement Study	Yolo County	Evaluate and study the aquatic and riparian ecosystem enhancement opportunities along the Sacramento River in Yolo County, including opportunities for non-native, invasive vegetation removal. Study opportunities outside of improvements to levees -- extend improvements and enhancements to the adjoining river corridor.	The river corridor along the 215-mile stretch of the Sacramento River in Yolo County.	Sacramento River	6 - 12 months
AR49	Sacramento Riverbank Enhancement Actions	City of West Sacramento & Yolo County	<p>This action includes a variety of enhancements of Sacramento River riparian and aquatic habitat consistent with levee improvements. As a result of increased attention by the Governor and the Legislature on improving California's levee system, projects will be undertaken on Yolo County's 215 miles of Sacramento River Flood Control Project levees to strengthen them. If funding is available, local levee maintenance districts and other flood control agencies should undertake wildlife, plant, and fish habitat enhancement projects in addition to their required mitigation activities. Riparian vegetation could be added to levee slopes according to the bank vegetation guidelines of the Sacramento River Corridor Planning Forum's (2005) draft Floodway Management Plan. The guidelines are designed to increase habitat value, while maintaining maximum flood protection and providing additional structure for fish habitat, as appropriate</p> <p>Outmigrating juvenile salmon and steelhead in the Sacramento River benefit greatly from instream woody material and other inundated structures because they provide cover. Cover protects juveniles from predators, and provides substrate for food organisms. Little structure occurs in the channel, because the sources of instream woody material are very limited in the lower, levee-confined reaches of the Sacramento River, or have been removed for levee and channel maintenance or by rock bank protection projects.</p>	Yolo County's 215 miles of Sacramento River Flood Control Project levees	Sacramento River	6-12 months
AR50	Bees Lakes Preserve	City of West Sacramento	Conserve and develop limited, low-impact pedestrian-only access to a 23-acre open space area containing sensitive aquatic, riparian, emergent and upland habitats which are associated with the Sacramento River.	Bees Lakes is on the west side of the Sacramento River Levee, roughly half way between the Linden Road and Davis Road intersections of South River Road.	Sacramento River	6-12 months
AR51	Merritt Island Habitat Enhancement Project	RD 150 and Yolo County	Study the structure and habitat of the Elk Slough Levee on Merritt Island (in RD 150). The purpose of the study will be to find a means to improve it's structural integrity while maintaining the well-established natural habitat.	Elk Slough in RD 150	Sacramento River	
FM5	Knights Landing Levee Improvement Project	Yolo County and RD 108	Geotechnical studies and levee improvements are needed to address through seepage and under seepage problems for the 12 miles of levees that protect the unincorporated town of Knights Landing. The evaluations are necessary to determine the potential for through seepage, under seepage, or other levee weaknesses that may lead to levee failure. Through seepage can be addressed through construction of the Mid-Valley Project -- a multiple-phase US Army Corps of Engineers project. Under seepage and other problems can only be addressed once levee integrity studies are completed that will identify needed improvements. Funding may also be needed for improvements necessary to meet federal erosion and freeboard standards.	6 miles of Sacramento River levees and 6 miles of levees on the Knights Landing Ridge Cut Canal.	Sacramento River	12-36 mo
FM6	Clarksburg Levee Improvement Project/Sacramento River Levee Improvement #4	RD 999 and Yolo County	Make levee improvement #4 at Clarksburg. The levees that protect the small community of Clarksburg were developed many years ago when lands were reclaimed and developed for agricultural uses. Nearly a century later, these levees now protect over 2,000 residents and valuable agricultural lands. The reliability of this levee system has never been studied, despite evidence of seepage problems. Geotechnical studies and levee improvements are now needed to address through seepage and under seepage problems for the levees that could cause levee failure. Funding is also needed for necessary improvements identified by the geotechnical evaluations.	Reclamation District 999 unit #4 levee mile 0 to levee mile .8	Sacramento River	6-12 months
FM7	Sacramento River West Bank Levee Integrity Program	Yolo County	Levee maintenance districts need funding for geotechnical evaluations of all Sacramento River levees not included in the West Sacramento levee improvement projects. Approximately 80 miles of Sacramento River levees have never been evaluated, despite identified seepage problems. The evaluations are necessary to determine the potential for through seepage, under seepage, or other levee weaknesses that may lead to levee failure. The studies should identify improvements that also need to be funded.	Approximately 80 miles of levees in unincorporated Yolo County outside of Knights Landing and Clarksburg	Sacramento River	Unknown
FM30	Sacramento River Levee Rehabilitation Project (Merritt Island)	RD 150	Waterside Erosion repair of damage from 07 flood. Over 14,000 feet of wave wash/erosion damage done to the levees of RD 150/Merritt Island along the Sacramento River Bank, Sutter Slough bank and Elk Slough bank.		Sacramento River	TBD

Table 6-4. Individual Actions Considered in the Sacramento River West Bank Integrated Project

Project ID	Project Name	Organization	Summary	Location	Geographic Area	Project Readiness
FM40	Sacramento River Levee Repair	City of West Sacramento	Correct deficiencies, protect against under seepage, and maintain the Sacramento River Levees to current standards for FEMA 100 yr and 200 year levels of flood protection. Physical improvements may include, but not be limited to, restoration and armoring of water-side levee slopes, increased levee height through crown raising or crown-top walls, slurry cutoff walls in the levee prism, seepage blankets on the levee land-side, levee setbacks, etc.	Right bank of the Sacramento River from approximately River Mile 63.0 to approximately River Mile 46.0	Sacramento River	12-36 months
FM41	Deep Water Ship Canal Navigation Levee Repair	City of West Sacramento	Correct deficiencies, protect against under seepage, and maintain the Deep Water Ship Canal Levees to current standards for FEMA 100 yr and urban levee 200 year levels of flood protection. Physical improvements may include, but not be limited to, restoration and armoring of water-side levee slopes, increased levee height through crown raising or crown-top walls, slurry cutoff walls in the levee prism, seepage blankets on the levee land-side, levee setbacks, etc.	Deep Water Ship Canal Navigation Levee extending from the Sacramento River just east of the Port of Sacramento to its terminus into the San Francisco Bay near Rio Vista (approximately 22 miles).	Deep Water Ship Canal & Levees	12-36 months
FM42	Sacramento Bypass-Yolo Bypass Levee Repair	City of West Sacramento	Correct deficiencies, protect against under seepage, and maintain the Sacramento Bypass and Yolo Bypass Levees to current standards for FEMA 100 yr and urban levee 200 year levels of flood protection. Physical improvements may include, but not be limited to, restoration and armoring of water-side levee slopes, increased levee height through crown raising or crown-top walls, slurry cutoff walls in the levee prism, seepage blankets on the levee land-side, levee setbacks, etc.	South levee of the Sacramento Bypass extending from the Sacramento River at the Sacramento Weir to the Yolo Bypass and the east levee of the Yolo Bypass extending from the Sacramento Bypass to the Deep Water Ship Canal Navigation Levee.	Sacramento Bypass and Yolo Bypass	12-36 months
FM43	West Sacramento South Cross Levee Repair	City of West Sacramento	Correct deficiencies, protect against under seepage, and maintain the West Sacramento South Cross Levees to current standards for FEMA 100 yr and urban levee 200 year levels of flood protection. Physical improvements may include, but not be limited to, restoration and armoring of water-side levee slopes, increased levee height through crown raising or crown-top walls, slurry cutoff walls in the levee prism, seepage blankets on the levee land-side, levee setbacks, etc.	Cross levee on West Sacramento's southern border extending from the Sacramento River to the Deep Water Ship Canal. This levee protects the City from flood water intrusion from possible Sacramento River west levee or Deep Water Ship Canal east levee break south of the City.	Deep Water Ship Canal & Levees, Cross Levees	12-36 months
FM44	Ongoing Levee Maintenance and Critical Repair Program	City of West Sacramento & Yolo County	Annual program of levee maintenance and repair at critical erosion sites, implementing Public Law 8499.	Yolo County's 215 miles of Sacramento River Flood Control Project levees, 22 miles of Deep Water Ship Canal levees, Yolo Bypass Project levees.	Sacramento River; Yolo Bypass; Deep Water Ship Canal & Levees	6-12 months
FM45	RD900 and West Sacramento MOU on Stormwater Detention and Raw Water Supply	City of West Sacramento	The City of West Sacramento and Reclamation District 900 are developing an agreement for cooperative management, use, and maintenance of stormwater detention facilities, irrigation and drainage canals, pumps, and other facilities associated with purveying and use of untreated water.	Within RD 900 and City jurisdictional areas.	Sacramento River	1-6 months
FM46	Elk Slough Reclamation Pumping Plant	RD 999	Existing pumping plant is 80 years old. Replace 3 old pumps with 4 new pumps and drives. This project will increase pumping efficiency, reduce cost, increase reliability and maintain the exiting pumping capacity.	New Pumping infrastructure at 38563 Netherlands Road, Clarksburg, CA 95612, 1,000 HP. Pump station	Sacramento River	TBD
FM47	Public Outreach on Flood Risk	Yolo County, City of West Sacramento	Continue to improve public outreach efforts to encourage citizens living in the floodplain to purchase flood insurance. Residents and property owners in the floodplain may be at risk if flooding occurs on the Sacramento River. Floodplain managers have recently become aware of potential levee weaknesses along the Sacramento River. Property owners need to understand the flood risk and should also be encouraged to purchase flood insurance or ensure that their policy will not expire.	Sacramento River floodplain within specific flood zones.	Sacramento River	6 - 12 months
FM48	Levee Maintenance Fee Structure Assessment	Yolo County, City of West Sacramento	Assess levee maintenance district fee structure and funding opportunities in relation to maintenance demands. Work with the Department of Water Resources to evaluate and recommend solutions. Use the Local Agency Formation Commission municipal service review of levee maintenance districts to initiate changes as appropriate (occurs every five years, the last one was completed in March 2005).	The river corridor along the 215-mile stretch of the Sacramento River in Yolo County.	Sacramento River	TBD
R7	Knights Landing River Access facility Improvements	Yolo County	Renovate an existing river access/fishing facility located on a 4-acre site, located along the Sacramento Slough (with access to the Sacramento River). The site is owned by the State Wildlife Conservation Board (WCB), and managed by Yolo County under an operating agreement with the WCB. Renovation and construction to include removing navigation obstacles, installing updated boarding floats, repaving the parking lot, installing a vault restroom, potable water system, automated fish cleaning station, updating the site electrical, installing an automated pay station, fishing platforms, and upgrading the park host facilities.	One mile west of the town of Knights Landing off of State Hwy 45.	Sacramento River	>36 months

Table 6-4. Individual Actions Considered in the Sacramento River West Bank Integrated Project

Project ID	Project Name	Organization	Summary	Location	Geographic Area	Project Readiness
R10	Elkhorn Regional Park Improvement Project	Yolo County	Renovate the southern portion of an existing 49 acre park site located eight miles north of West Sacramento along the Sacramento River. Recreational improvements to include installing an elevated universally accessible educational trail through the rich riparian gallery forest, construction of river overlooks, restoring the wildlife habitat, and installing an interpretative kiosks and educational signage. Acquire 900-foot easement to connect Park to DFG Wildlife Area. Renovate the southern portion of an existing 49 acre park site located eight miles north of West Sacramento along the Sacramento River. Recreational improvements to include installing an elevated universally accessible educational trail through the rich riparian gallery forest, construction of river overlooks, restoring the wildlife habitat, and installing an interpretative kiosks and educational signage. Acquire 900-foot easement to connect Park to DFG Wildlife Area.	Eight miles North of West Sacramento on CR 22 (Old River Road)	Sacramento River	12-36 months
R13	Deep Water Ship Canal Recreational Trail	City of West Sacramento	Design and construct a 5.3-mile biking/walking trail along the east levee of the Deep Water Ship Channel and the north levee of south city cross drain. Improvements will consist of paved and un-paved trail surfaces (similar to Caltrans Class 1 Bicycle Path), vehicular staging areas and access controls, location-based amenities (e.g., picnic tables, trash/recycling receptacles, information kiosks, drinking fountains, shade structures, landscaping, wildlife or port viewing areas, bank fishing access, etc.).	Along the east levee of the Deep Water Ship Channel southward from Southport Industrial Park Detention Basin and eastward along the north levee of south city cross drain, connecting to the Sacramento River West Bank levee. The trail may be extended northward through portions of the Port Seaway where public access does not conflict with industrial operations or Homeland Security restrictions.	Sacramento River; Deep Water Ship Canal & Levees	6-12 months
R17	Sacramento River Recreation, Fishing and Boating Access Studies	City of West Sacramento & Yolo County	Conduct user surveys to understand demand and specific needs of fishing and boating, other recreation activities along the Sacramento River. Use the survey to assess potential opportunities and improvements. Integrate new information with local recreation plans; previous regional studies by the State Lands Commission, Delta Protection Commission, and the Riverfront Master Plan; and information from the upcoming Delta Trail and Delta Vision processes. Although several jurisdictions have developed recreation-related plans, there is no coordinated water-related recreation plan available for Yolo County. The current and future water-related recreational needs are insufficiently known. This lack of information hampers the development of water-related recreational opportunities and access required to meet current and future demand in the City of West Sacramento and County of Yolo.	The river corridor along the 215-mile stretch of the Sacramento River in Yolo County.	Sacramento River	6-12 months
R21	Sacramento River Fishing and Boating Access Improvements Program	City of West Sacramento & Yolo County	Design and construct additional boating or bank fishing access points and related improvements along the Sacramento River. Design and construct additional parking spaces for bank fishing in the Sacramento River. Design and construct a fishing pier on the Sacramento River in West Sacramento.	The river corridor along the 215-mile stretch of the Sacramento River in Yolo County.	Sacramento River	6-12 months
R30	Clarksburg Sacramento River Access Facility Improvements	Yolo County	Renovate the 4-acre site, located along the Sacramento River. Renovation and construction to include removing navigation obstacles, widening the boat launch ramp to comply with current state standards, installing updated boarding floats, repaving the parking lot, installing a vault restroom, potable water, automated fish cleaning station, updating the site electrical, installing an automated pay station, fishing platforms, and constructing new park host facilities. Include the site in the State delta Clean Boating Network program which includes the installation of an oil recycling center, public information station, and the distribution of clean boating "kits" to educate the public on the value of keeping the river and delta clean.	Three miles south of the town of Clarksburg off of South River Road.	Sacramento River	12-36 months
R35	Central Park Facilities	City of West Sacramento	Design and construct a broad range of recreational amenities to provide visual and physical access to the Sacramento River and Barge Canal at locations between the Palamidessi and Jefferson Boulevard bridges, the River Bluffs, and the Barge Canal dredge spoils site. Water-related facilities may include an aquatic/boating center, marina, viewing platforms and shore access pathways. Adjacent active and passive recreation facilities may include civic gathering and festival areas, neighborhood play parks, sport field complexes, meeting and convention facilities, theater or other performing art venues, museum or other cultural interpretation facilities.	Publicly owned properties at the following locations: West Sacramento Wastewater Treatment Facility, Barge Canal navigational properties, Barge Canal dredge spoils property, land along the south bank of the Barge Canal between the Lake Washington and Jefferson Boulevard bridges.	Sacramento River, Deep Water Ship Canal & Levees	6-12 months

Table 6-4. Individual Actions Considered in the Sacramento River West Bank Integrated Project

Project ID	Project Name	Organization	Summary	Location	Geographic Area	Project Readiness
R36	Main Drain Canal Recreation Corridor	City of West Sacramento	Design and construct over 6 miles of bicycle and pedestrian access, travel, and other use amenities along the Main Drainage Canal between the Barge Canal and the Deep Water Ship Channel. Improvements will consist of paved and un-paved trail surfaces, vehicular staging areas and access controls, and location-based amenities (e.g., picnic tables, trash/recycling receptacles, information kiosks, drinking fountains, shade structures, landscaping, viewing areas, bank fishing access, etc.). Improvements will be phased according to available funding and other opportunities.	Along the entire length of the Main Drain Canal, from the Barge Canal south along Arlington Road to the intersection of Lake Washington Boulevard and Jefferson Boulevard, from the MC-10 Detention Basin eastward to Jefferson Boulevard, and southward from Jefferson Boulevard to the Main Drain Pump Station at the Deep Water Ship Canal levee.	Sacramento River, Deep Water Ship Canal & Levees	1-6 months
R37	Implementation of the Commission's Land Use and Resource Management Plan for the Primary Zone of the Delta (Management Plan)	Yolo County, City of West Sacramento	The Management Plan contains findings, policies, and recommendations in the areas of environment, utilities and infrastructure, land use, agriculture, water, recreation and access, levees, and marine patrol/boater education/safety programs. The policies of the Management Plan are incorporated in the General Plans of local entities with jurisdiction in the Primary Zone. All projects should be consistent with the Management Plan as well as County General Plan policies pertaining to the Delta. In addition, all projects should be compatible with the Great Delta Trail which is being planned by the Delta Protection Commission pursuant to SB 1556 (Torlakson).	Implementation of the Management Plan occurs in the Legal Delta (Water Code Section 12220 et seq.)	Cache Creek; Sacramento River; Other Sloughs or Tributaries; Yolo Bypass; Deep Water Ship Canal & Levees	TBD
R38	Sacramento River Recreational Trail	City of West Sacramento	Design and construct a continuous 13.1 mile, 192-acre recreation corridor along the entire length of the Sacramento River within City limits. Improvements will consist of paved and un-paved trail surfaces, vehicular staging areas and access controls, and location-based amenities ranging from major community parks (e.g., River Walk Park, Riverfront Promenade) to occasional experiences (e.g., picnic tables, trash/recycling receptacles, information kiosks, drinking fountains, shade structures, landscaping, viewing areas, bank fishing access, etc.). Improvements will be phased according to available funding and other opportunities.	Along the entire length of the Sacramento River within City limits, predominantly atop Project Levees and including River Walk Park, Riverfront Promenade, Pioneer Bluff Park, Barge Canal levee, and South River Road.	Sacramento River; Deep Water Ship Canal & Levees	6-12 months
WQ11	Sacramento River Joint Source Water Protection Program	City of West Sacramento	Project includes funding and participation in the joint source water protection program with City of Sacramento. This program aims to reduce TOC and pesticide runoff into the Sacramento River. Includes public notification and education programs, coordination with the CRC on rice management and spill notification procedures. Funding enables monitoring for existing and new pesticides during the spring and summer discharge periods.	Sacramento River from I-80 to I Street Bridge	Sacramento River (watershed)	Ready now
WQ17	Sacramento River Storm Water Sources Monitoring Program	City of West Sacramento, Yolo County	Project includes funding for implementation of a storm water monitoring program to identify and reduce urban runoff contaminants from entering the Sacramento River water supply. Project consists of developing a long-term storm water monitoring program for Yolo County along the Sacramento River.	Sacramento River from I-80 to I Street Bridge	Sacramento River	6-12 months
WS27	Linden Road water intake plant replacement	Reclamation District #900	Replace existing outdated water intake pumping facility with new intake and discharge pipelines, pump, and electrical panel. New pipeline invert through levee will be above 200 year water surface. Intake will have fish screens. Old pipeline will be removed and levee will be restored to meet current Corps requirements.	East end of Linden Road, through Sacramento River levee in Southport area of West Sacramento	Sacramento River	1-6 months
WS28	West Sacramento Reclaimed Water Use Standards	City of West Sacramento	Adopt and promulgate the Sacramento Regional County Sanitation District standards for irrigation systems that can use reclaimed or other non-potable water for landscaping or parks.	Citywide, for all public landscaping, streetscape, and park improvements	Sacramento River	Ready now

Table 6-5. Individual Actions Not Carried Forward in the Sacramento River West Bank Integrated Project

ID	Title	Description/Location	Geographic Area
FM27	Funding for the Flood Management Division of DWR	Increased funding for the maintenance work of DWR's Flood Management Division. The Division maintains 56 miles of Yolo County levees.	Sacramento River
FM28	Sacramento River Levee Rehabilitation Project (RM 69.9 RD827)	RD 827 needs funds to fix a critical erosion site at RM 69.9. No levee break analysis has been completed to determine what would flood if this levee fails.	Sacramento River
FM32	Sutter Bypass Vegetation Removal Project	Vegetation removal in the Sutter Bypass consistent with habitat restoration activities. Sutter Bypass is losing capacity because of vegetation; water that is not captured in the Sutter Bypass can put additional pressure on the Yolo Bypass and downstream levees.	Sacramento River
FM33	Yolo and Tisdale Bypasses Sediment Removal Program	RD 108 and the DWR need additional funding to remove sediment that is restricting the capacity of the Yolo Bypass and the Tisdale Bypass.	Sacramento River
FM49	Traffic Alleviation on Levee Roads	Develop recommendations related to alleviating problems associated with increased traffic on levee roads and parking on levee banks that inhibit levee maintenance efforts.	Sacramento River
R39	Broderick Boat Ramp Expansion Project	Expand the existing Broderick boat ramp and improve facilities.	Sacramento River
R40	Patwin-Summerfield Pedestrian Bridge	Construct the Patwin-Summerfield Bicycle and Pedestrian Bridge over the Main Drainage Canal to connect neighborhoods and two parks.	Sacramento River
WQ10	Sacramento River Water Facilities Review Program	Countywide, develop comments and opinions related to Environment Impact Reports (EIR) on new surface water treatment facilities and water contracts within the Sacramento River Watershed that affect existing and future Yolo County municipal and agricultural surface water users.	Sacramento River

Table 6-6. IRWMP Criteria Performance Scores

Integrated Project ID	Integrated Project Title	Component Action IDs	IRWMP PERFORMANCE CRITERIA				
			1. Ensure open & frequent communication with the public.	2. Integrate water resource planning and land use planning.	3. Help disadvantaged communities with basic infrastructure improvements.	4. Integrate actions to ensure multiple benefits, including recreation, aquatic, riparian ecosystem enhancement.	5. Provide a reliable and sustainable surface water supply from a variety of sources.
UP	Urgent Levee and Other Flood Management Improvements	FM 5, FM6, FM7, FM30, FM40, FM41, FM42, FM43, FM44	2	3	2	3	0
P1	Sacramento River Flood Management Habitat, and Recreation Improvements	AR26, AR49, AR50, FM7, FM40, FM44, FM 47, FM48, R17, R21	2	3	1	3	0
P2	Knights Landing Area Project	FM5, R7	2	2	1	2	0
P3	West Sacramento Project	FM43, FM45, R35, R36, R38, WS 28	3	3	0	3	1
P4	Deep Water Ship Channel Project	FM41, FM42, R13	1	2	0	3	0
P5	Clarksburg Area Project	AR51, FM6, FM30, FM46, R30	3	2	2	2	3
P6	Sacramento River Water Quality and Water Supply Project	WQ11, WQ17, WS27, WS28	3	2	2	2	3
Not Integrated							
R10	Elkhorn Regional Park Improvement Project	N.A.	1	1	0	1	0
R37	Delta Management Plan Implementation	N.A.	1	3	0	2	0

Table 6-6. IRWMP Criteria Performance Scores

Integrated Project ID	Integrated Project Title	Component Action IDs	IRWMP PERFORMANCE CRITERIA				
			6. Manage the county's ground water resources for a sustainable, reliable, high quality supply of ground water.	7. Conjunctively use ground water and surface water to maximize efficiency, sustainability and value of water.	8. Develop state - of-the-art urban and agricultural water use efficiency programs.	9. Meet, state, federal, or local standards for water quality protection, including TMDLS.	10. Develop continuous water quality monitoring, management and protection programs.
UP	Urgent Levee and Other Flood Management Improvements	FM 5, FM6, FM7, FM30, FM40, FM41, FM42, FM43, FM44	0	0	0	1	0
P1	Sacramento River Flood Management Habitat, and Recreation Improvements	AR26, AR49, AR50, FM7, FM40, FM44, FM 47, FM48, R17, R21	0	0	0	1	0
P2	Knights Landing Area Project	FM5, R7	0	0	0	0	0
P3	West Sacramento Project	FM43, FM45, R35, R36, R38, WS 28	0	0	3	0	0
P4	Deep Water Ship Channel Project	FM41, FM42, R13	0	0	1	0	0
P5	Clarksburg Area Project	AR51, FM6, FM30, FM46, R30	0	0	1	0	0
P6	Sacramento River Water Quality and Water Supply Project	WQ11, WQ17, WS27, WS28	0	2	3	2	2
Not Integrated							
R10	Elkhorn Regional Park Improvement Project	N.A.	0	0	0	0	0
R37	Delta Management Plan Implementation	N.A.	0	0	0	2	1

Table 6-6. IRWMP Criteria Performance Scores

Integrated Project ID	Integrated Project Title	Component Action IDs	IRWMP PERFORMANCE CRITERIA				
			11. Reduce flood risk in all areas of the county within 20 years.	12. Flood management approaches that reduce flood risk, and improve riparian environment, and recreational opportunities.	13. Develop innovative storm water management requirements, guidelines and best practices.	14. Enhance the aquatic and riparian environment in priority areas, consistent with the emerging Yolo County NCCP/HCP.	15. Become a model area for integrating agricultural production and habitat conservation.
UP	Urgent Levee and Other Flood Management Improvements	FM 5, FM6, FM7, FM30, FM40, FM41, FM42, FM43, FM44	3	3	2	2	2
P1	Sacramento River Flood Management Habitat, and Recreation Improvements	AR26, AR49, AR50, FM7, FM40, FM44, FM 47, FM48, R17, R21	2	3	1	2	1
P2	Knights Landing Area Project	FM5, R7	1	2	0	0	0
P3	West Sacramento Project	FM43, FM45, R35, R36, R38, WS 28	1	1	1	1	1
P4	Deep Water Ship Channel Project	FM41, FM42, R13	2	2	2	2	2
P5	Clarksburg Area Project	AR51, FM6, FM30, FM46, R30	1	3	1	1	0
P6	Sacramento River Water Quality and Water Supply Project	WQ11, WQ17, WS27, WS28	0	0	1	2	1
Not Integrated							
R10	Elkhorn Regional Park Improvement Project	N.A.	0	0	0	0	0
R37	Delta Management Plan Implementation	N.A.	0	3	0	2	0

Table 6-6. IRWMP Criteria Performance Scores

Integrated Project ID	Integrated Project Title	Component Action IDs	IRWMP PERFORMANCE CRITERIA				
			16. Achieve a sustainable and effective monitoring, management and reporting process for priority aquatic and riparian habitat areas.	17. Improve and expand water-related recreational programs, facilities, and opportunities.	18. Integrate water-related recreational actions with other actions that meet water management objectives.	19. Eliminate or significantly reduce pollution in impaired waters and sensitive habitat areas.	20. Reduce conflict between water users or resolve water rights disputes.
UP	Urgent Levee and Other Flood Management Improvements	FM 5, FM6, FM7, FM30, FM40, FM41, FM42, FM43, FM44	2	2	3	1	0
P1	Sacramento River Flood Management Habitat, and Recreation Improvements	AR26, AR49, AR50, FM7, FM40, FM44, FM 47, FM48, R17, R21	2	3	3	1	0
P2	Knights Landing Area Project	FM5, R7	1	1	2	1	0
P3	West Sacramento Project	FM43, FM45, R35, R36, R38, WS 28	1	3	3	1	0
P4	Deep Water Ship Channel Project	FM41, FM42, R13	2	3	2	0	0
P5	Clarksburg Area Project	AR51, FM6, FM30, FM46, R30	2	2	3	1	0
P6	Sacramento River Water Quality and Water Supply Project	WQ11, WQ17, WS27, WS28	2	1	2	2	0
Not Integrated							
R10	Elkhorn Regional Park Improvement Project	N.A.	1	1	1	1	0
R37	Delta Management Plan Implementation	N.A.	1	1	1	1	0

Table 6-6. IRWMP Criteria Performance Scores

Integrated Project ID	Integrated Project Title	Component Action IDs	IRWMP PERFORMANCE CRITERIA				
			21. Implement RWQCB Watershed Management Initiative Chapters, plans, and policies.	22. Implement the SWRCB Non-point Source Pollution Plan.	23. Assist in meeting Delta Water Quality Objectives.	24. Implement recommendations of floodplain management, desalination, and recycling task forces, or state species recovery plan.	25. Address environmental justice concerns.
UP	Urgent Levee and Other Flood Management Improvements	FM 5, FM6, FM7, FM30, FM40, FM41, FM42, FM43, FM44	2	0	2	3	2
P1	Sacramento River Flood Management Habitat, and Recreation Improvements	AR26, AR49, AR50, FM7, FM40, FM44, FM 47, FM48, R17, R21	1	0	1	1	2
P2	Knights Landing Area Project	FM5, R7	0	1	0	1	1
P3	West Sacramento Project	FM43, FM45, R35, R36, R38, WS 28	1	1	1	3	2
P4	Deep Water Ship Channel Project	FM41, FM42, R13	2	0	2	2	3
P5	Clarksburg Area Project	AR51, FM6, FM30, FM46, R30	0	1	0	1	2
P6	Sacramento River Water Quality and Water Supply Project	WQ11, WQ17, WS27, WS28	2	2	2	1	2
Not Integrated							
R10	Elkhorn Regional Park Improvement Project	N.A.	0	0	1	0	1
R37	Delta Management Plan Implementation	N.A.	0	0	1	0	0

Table 6-6. IRWMP Criteria Performance Scores

Integrated Project ID	Integrated Project Title	Component Action IDs	IRWMP PERFORMANCE CRITERIA		Total IRWMP Criteria Performance Score
			26. Assist in achieving one or more goals of the CALFED Bay-Delta Program.	27. Consistent with Delta Standards and Programs	
UP	Urgent Levee and Other Flood Management Improvements	FM 5, FM6, FM7, FM30, FM40, FM41, FM42, FM43, FM44	2	3	45
P1	Sacramento River Flood Management Habitat, and Recreation Improvements	AR26, AR49, AR50, FM7, FM40, FM44, FM 47, FM48, R17, R21	3	3	39
P2	Knights Landing Area Project	FM5, R7	1	3	22
P3	West Sacramento Project	FM43, FM45, R35, R36, R38, WS 28	0	3	37
P4	Deep Water Ship Channel Project	FM41, FM42, R13	0	3	36
P5	Clarksburg Area Project	AR51, FM6, FM30, FM46, R30	2	3	36
P6	Sacramento River Water Quality and Water Supply Project	WQ11, WQ17, WS27, WS28	2	3	46
Not Integrated					
R10	Elkhorn Regional Park Improvement Project	N.A.	1	3	13
R37	Delta Management Plan Implementation	N.A.	2	3	24

Table 6-7. Other Local Consideration Scores

Integrated Project ID	Integrated Project Title	Component Action IDs	OTHER CONSIDERATIONS					Total Other Considerations Score	Weighted Other Considerations Score
			Project Urgency	Total Project Integration	Lead Agency Capacity for Implementation	Project Readiness	Status of Funding		
UP	Urgent Levee and Other Flood Management Improvements	FM 5, FM6, FM7, FM30, FM40, FM41, FM42, FM43, FM44	Immediate	N.A.	N.A.	N.A.	N.A.	Immediate	Immediate
P1	Sacramento River Flood Management Habitat, and Recreation Improvements	AR26, AR49, AR50, FM7, FM40, FM44, FM 47, FM48, R17, R21	3	3	2	2	2	12	24
P2	Knights Landing Area Project	FM5, R7	1	1	1	1	0	4	8
P3	West Sacramento Project	FM43, FM45, R35, R36, R38, WS 28	1	2	2	2	1	8	16
P4	Deep Water Ship Channel Project	FM41, FM42, R13	2	1	1	1	1	6	12
P5	Clarksburg Area Project	AR51, FM6, FM30, FM46, R30	2	2	1	1	0	6	12
P6	Sacramento River Water Quality and Water Supply Project	WQ11, WQ17, WS27, WS28	0	1	2	2	2	7	14
Not Integrated									
R10	Elkhorn Regional Park Improvement Project	N.A.	0	0	1	0	0	1	2
R37	Delta Management Plan Implementation	N.A.	0	0	1	0	0	1	2

Table 6-8. Project Performance Scores and Priority Ranking

Integrated Project ID	Integrated Project Title	Component Action IDs*	Total IRWMP Criteria Score	Total Other Considerations Score	IRWMP Priority	Priority Rationale
UP	Urgent Levee and Other Flood Management Improvements	FM6, FM7, FM30, FM40, FM41, FM42, FM43, FM44	45	Immediate	Immediate	The protection of life and safety is the most important consideration of the County and City. The overarching importance of life and safety warrants single-function integration of urgent flood control actions and immediate priority for implementation.
P1	Sacramento River Flood Management Habitat, and Recreation Improvements	AR26, AR49, AR50, FM7, FM40, FM44, FM 47, FM48, R17, R21	39	24	High	This project advances urgent life and safety improvements and achieves the highest level of multi-function integration.
P2	Knights Landing Area Project	FM5, R7	22	8	Medium	The Knights Landing actions harness a good opportunity for integrating complementary flood control and recreational improvements.
P3	West Sacramento Project	FM43, FM45, R35, R36, R38, WS 28	37	16	Medium	The combination of these actions creates a compelling opportunity to advance complementary actions through improved leveraging of local funding sources, while achieving urgent life and safety improvements.
P4	Deep Water Ship Channel Project	FM41, FM42, R13	36	12	Medium	This project advances urgent life and safety improvements with logical integration of an important regional recreation improvement. Local funds have been committed to leverage external grant financing.
P5	Clarksburg Area Project	AR51, FM6, FM30, FM46, R30	36	12	Medium	This project advances urgent life and safety improvements with good integration and project readiness. Local funds have been committed to leverage external grant financing.
P6	Sacramento River Water Quality and Water Supply Project	WQ11, WQ17, WS27, WS28	46	14	Medium	These actions are of fundamental importance to several on-going and pending programs and projects. The integration of these water quality and water supply actions is logical and improve the overall value of the project.
Not Integrated						
R10	Elkhorn Regional Park Improvement Project	N.A.	13	2	Low	While there is sufficient lead agency capacity to implement this action, this project lacks funding, project integration, and urgency.
R37	Delta Management Plan Implementation	N.A.	24	2	Low	While there is sufficient lead agency capacity, the absence of funding and integration interferes with implementation of this action.

* see Table 6-4 for descriptions

**Appendix X. Sacramento River West Integrated Action
Meeting Summaries**

Stakeholder Workshop Meeting Summary

DATE: February 5, 2007
TIME: 9:00 am – 12:00 pm
PLACE: West Sacramento City Hall
 1110 West Capitol Avenue, West Sacramento

ATTENDEES:

Butch Hodgkins, Reclamation Board	Katy Jacobson, West Sacramento Redevelopment	Cameron Beebe, City of West Sacramento
Robin Kulakow, Yolo Basin Foundation	Dan Fua, State Reclamation Board	Tony Schwall, Reclamation District 900
Linda Fiack, Delta Protection Commission	Kent Lang, Reclamation District 537 & 1600	Gary Hobgood, Department of Fish & Game
Donna Gentle, Water Resources Association of Yolo County	Dan Mount, City of West Sacramento	Traci Sheehan, Yolo County
Dave Shpak, City of West Sacramento	Gerrit Platenkamp, EDAW	Steve Chainey, EDAW
Stephanie Bradley, EDAW		

MEETING SUMMARY:

Proposed Actions:

- The Delta Trail project (SB 1556) that would construct a multi-use trail network in the Delta should be added to the list of actions. It would connect to related actions in the IRWMP.
- The IRWMP should include completing the recreation study started by the Delta Protection Commission as an action.
- Should be looking at potential projects that relieve pressure on the levee system, including setback levees and floodplain easements.
- The Corps will be coming out with a report ranking projects for Congress. The projects that are high priorities should be added to the IRWMP.

Potential Funding Sources for Actions:

- The latest bonds that passed have a set of criteria for how they will allocate funds. One criterion is for regional flood control actions. DWR will be making 100% funding available for regional plans.
- Wording about proposition funding should be broadened to include all existing and future state and federal funding sources.
- The American River Front Revitalization Coalition may be a new source of funding.
- Emergency response and preparedness, which is a component of the Delta Vision, could be a source of funding. Yolo Co OES is already taking the lead on this plan.

- An inventory of funding programs is needed; Proposition 50 funding is no longer a focus because there are few remaining, uncommitted funds.

Other Considerations:

- The actions in the IRWMP should be consistent with Delta Protection Commission policies, the Delta Vision, the Delta Mercury TMDL, the Delta Aquatic HCP, the Bay-Delta Conservation Plan, and the State Parks Central Vision.
- Yolo County provides mitigation opportunities for projects in other areas (e.g., Natomas in Sacramento). Projects providing upstream pressure relief on the Sacramento River would provide regional benefit.
- There is opportunity to integrate future emergency levee repairs with the IRWMP. New levee repair standards and guidelines are being or have been prepared by DWR, FEMA, and the Corps. IRWMP actions should incorporate new flood protection standards. DWR should be consulted on levee work on the water side of levees.
- Corps released new guidance on minimum standards for levee certification, including mandatory removal of all vegetation over 3" diameter on levee slopes. Interpretation and implementation of this guidance is still unclear, although DWR has already instructed local RD's to comply. Local, agricultural reclamation districts cannot afford levee repair and full compliance with new standards.
- SAFCA is looking at Sutter County to improve flood control by diverting peak flood stage along the Sacramento River upstream of the Sacramento urban areas. SAFCA is no longer focusing on the Yolo Bypass or Elkhorn area of Yolo County as loci of flood relief measures.
- There is a need for actions that have regional support, regional benefit (system-wide), and regional targets.

Public Workshop Meeting Summary

DATE: February 8, 2007
TIME: 4:30 – 6:30 p.m.
PLACE: West Sacramento City Hall
 1110 West Capitol Avenue, West Sacramento
 Civic Center Galleria

ATTENDEES:

Linda Henegein	Gary Merwin	Bob Kirtlan
Don Stauffer	Tasmein Eusuff, DWR	LaVerne Ireland
Kathryn Bellrami	Helen Smith	David Scheuring, WRA
John Tallman	Caroline Quinn, City of West Sacramento	Stephen Patek, City of West Sacramento
Joe Baramkin	Tricia Blocher	Mary Lasell
Julia Mciver, Yolo County	Tiffany Knapp	Marc Wheeler
Bob Bullis	Carissa Adams	Fran Borcalli, Wood Rodgers
Cameron Beebe	Bill Naddy	Jeff Twitchell, WoodRodgers
Roger Berry	Catherine Barankin	Mike Westlake
Donna Gentile, Water Resources Association of Yolo County	Dan Mount, City of West Sacramento	Traci Sheehan, Yolo County
Dave Shpak, City of West Sacramento	Gerrit Platenkamp, EDAW	Steve Chainey, EDAW
Stephanie Bradley, EDAW		

MEETING SUMMARY:

Proposed Actions and Input on Actions:

- Safety of people from flooding should be the 1st priority and safety of private property should be the 2nd highest priority.
- Flood protection should be a higher priority than other categories.
- Snow pack should be considered part of the equation to determine how much water is held behind dams.
- The Sacramento Weir gates should be removed.
- There is interest in recreation along levees. Recreation should be integrated with other components.
- Water quality in the Port of Sacramento is a concern – is there water quality monitoring currently occurring in the Port?
- Invasive weeds introduced by ships to the Port of Sacramento should be studied.
- As much natural vegetation as possible should be incorporated into the levee system.
- There is a need to protect regional infrastructure. The South River Pump Station needs to be protected.
- Actions need to respect private property.
- Is dredging in the Deep Water Ship Channel included in the IRWMP?

Concerns:

- RD 150 was not notified about the public meeting. [*WRA sent notices to all the RD's. Yolo County mailed and emailed notification of the meeting, along with a form to propose actions/projects in mid-January*]]
- RD 307 landowner was not notified about the public meeting.
- Why haven't the supervisors notified the RD's about the IRWMP process?
- Private landowners in Clarksburg have worked hard to close the levees to fishing because of vandalism and safety issues.
- If bank fishing is tied to levee projects in the Clarksburg area, they will be strongly opposed by landowners.
- Sacramento River West Bank group needs to gather information from the right sources, including individuals that know the history of the area and private landowners.
- Ferryboats are causing wave erosion on levee banks.
- Infrastructure and recreation on levees compromises the integrity of the levees (Sierra Club public comment).

Questions and Other Considerations:

- Where are potential projects located?
- How can we find out more about what projects affect the "Rivers" development area?
- When homes in the "Rivers" development were built on the levees, problems with the levees were discovered and money was used from other areas to fix the levee problems.
- Will the public be voting on each action?
- Who decides what actions get integrated?
- Would a levee repair project in a rural area receive a lower priority?
- When considering projects and the available funding, it seems like flood protection projects are the 1st priority.
- Representatives from the Sacramento River West Bank group should attend a Clarksburg Advisory Committee meeting to get more input on the actions. [*Gerrit Platenkamp gave a presentation to CAC last year on behalf of WRA about the IRWMP*]
- Private landowners have fought the Corps to allow existing trees to remain on the levees.
- What is the status of the Central Park Plan?
- Is the WRA website interactive?
- When is riverfront development around Raley Field going to occur?
- What is the timeline for the IRWMP process?
- Why aren't elected officials at the meeting?