

Central Valley Flood Protection Board Meeting

Conservation Strategy Advisory Committee - Final Recommendations Report

BRIEFING SUMMARY

Background

The Advisory Committee (Committee) was established pursuant to California Water Code Section 9612(f) and the Central Valley Flood Protection Board's (Board) Resolution 2012-25 Resolved 11(d) at the request of stakeholders during the August 22, 2014 Board meeting. The objective of the Committee is to advise the Board on the development of long-term, systemwide conservation objectives and covered actions associated with the flood management system for inclusion in the Central Valley Flood Protection Plan. The Committee's final report would serve as a guidance document for the Board as it considers the 2017 CVFPP Update. To date, there have been eight meetings of the Advisory Committee, dating back to November 2015. Board Staff and members of the Advisory Committee will be presenting the document at the October 28th Board Meeting.

Current Status

The final recommendations document is now available to the public on the Board's website at: <http://cvfpb.ca.gov/event/october-2016-board-meeting/>. A copy of the final document is attached here as part of Agenda Item 11C.

To: Central Valley Flood Protection Board

From: Central Valley Flood Protection Board, Advisory Committee

The Central Valley Flood Protection Plan

In Senate Bill 5 (2007), the Legislature directed the Department of Water Resources (DWR) to prepare an updated Central Valley Flood Protection Plan (CVFPP or Plan), to be approved by the Central Valley Flood Protection Board (Board). Water Code Sections 9614 and 9616 specified portions of what was to be included in the plan.

The Advisory Committee

The Advisory Committee was convened by the Central Valley Flood Protection Board (Board) to provide the Board with specific guidance and recommendations related to what elements might be considered for inclusion in the 2017 Update of the Plan and the associated Central Valley Flood System Conservation Strategy (CS) to ensure the CVFPP's approach to multi-benefit ecosystem restoration is functional, implementable and has broad support from environmental, flood management, water supply and agricultural communities.

The Advisory Committee represents a diverse group of stakeholders who worked together in a consensus-based process over approximately six months. The following Advisory Committee report summarizes the recommendations that emerged from that process. While these recommendations were developed specifically for the Board, it is the Advisory Committee's hope that they will also inform DWR and support the development of the CVFPP 2017 Update prior to its being brought to the Board for approval.

The Current Flood Situation

The major outline of our current flood management system was established about a hundred years ago. Much of that system was designed reduce flooding, improve navigation, and convert wetlands to agricultural lands and human settlements. In addition to flood conveyance and navigation uses, the established floodway landscape and water ways currently support other beneficial uses such as recreation, agriculture production, water supply infrastructure for agriculture, municipal and industrial needs, and primary habitat for a number of species, many of which are threatened or endangered.

While these levees were generally adequate to protect agricultural lands and the urban communities at that time, many levees are no longer able to meet today's more diverse range

of flood management objectives, including the need to provide higher levels of flood protection for urban populations, and the desire to restore and/or enhance the environment. In addition, the conversion of bottomlands resulted in the loss of a large percentage of the wetlands and floodplains in the Central Valley that formerly provided important habitat for many species, ecologically beneficial floodwater retention and attenuation, and groundwater recharge. The floodway areas that are between the levees under the system's current configuration (an estimated 10 percent of the historical floodplain expanse) and the surrounding agricultural lands now provide the primary habitat for a number of species, many of which are threatened or endangered and in continued decline. These declines, unless reversed, may bring greater regulatory restrictions on the use of water and land resources over time.

Multi-benefit projects in existing and expanded floodways offer an opportunity for both improved flood protection and improved habitats for many species. In addition, by improving habitat conditions and species populations, multi-benefit projects may

- a. Ease regulatory permitting in the flood zone and elsewhere,
- b. Preserve access to reliable water supplies or provide other benefits to water users,
- c. Capture other ancillary benefits including recreation and other values.

CVFPB Advisory Committee Goals

In developing recommendations for the Board, the Advisory Committee is bound, in part, by the intent of the Central Valley Flood Protection Act of 2008 (California Water Code section 9600 et seq). Specifically, the Advisory Committee is guided by **two primary goals**, captured in the 2008 Act, it believes critical to future planning and implementation efforts:

- To **improve safety** for human populations, local economies, and property owners through the reduction of flood risk.
- To **improve the ecosystem** above the current conditions by providing habitat restoration and species conservation where feasible.

The Advisory Committee believes that to achieve these two primary goals of the legislation, we must also be successful in achieving two additional goals:

- To develop efficient and effective processes to **meet regulatory compliance requirements** for all of the multiple actions contemplated in the CVFPP.
- To have **broad support** for the 2017 Update of the CVFPP that achieves the greatest possible alignment of public safety, regional water supply, flood protection, and agricultural, recreational, regulatory and environmental objectives.

Advisory Committee Strategies

To meet the intent of the Water Code within the CVFPP, the Advisory Committee suggests the application of the following **broad strategies**:

- a. **Development and construction of projects** that have broad stakeholder support and integrate and achieve measurable objectives for flood risk reduction and ecological improvement, while protecting the Central Valley's economy and preserving access to reliable water supplies at the local, regional, basin and system scales, in such a way that the current status and trends for both flood risk reduction and ecosystems condition are both being enhanced.
- b. **Development of funding for:**
 - Landowner incentives
 - Recreational features or facilities
 - Outreach and education
 - Increased partnering opportunities
 - Long-term O&M (planning, mitigation, permitting, and implementation)
 - Preservation of access to water supplies (cost-effective infrastructure improvements)
 - Tracking and monitoring of conservation sites
 - Enforcement of easements (for flood and conservation)
- c. **Development of a process to evaluate projects** at the regional/basin/system-wide scales to maximize both the flood risk reduction and the ecological potential of the system, taking into consideration cumulative effects. This would allow the 'multi-benefit' lens to be applied at a regional/basin level so a larger suite of projects could be evaluated together to demonstrate a broader approach to achieving the multi-objectives of the CVFPP.
- d. **Ensure, through implementation of multi-benefit projects, that the impacts of Operations, Maintenance, Repair, Rehabilitation, and Replacement (OMRR&R) are considered** in the context of regional ecological improvements, allowing for routine O&M to occur without the need for mitigation. Implementation of the actions proposed in the Basinwide Feasibility Study and Regional Flood Management Plans are intended to reduce flood risk and enhance the environment. The routine O&M that needs to occur to sustain these projects will be considered in this context. The intent is to ensure projects are designed, funded and implemented in a way to allow for flood risk reduction, including the ability to carry out OMRR&R for existing and new projects, and

identifying opportunities and funding for ecological uplift concurrently at the regional/basin/system-wide scales.

- e. **Managing the flood system as a dynamic whole** that will evolve over time and include considerations for flood infrastructure and habitat while maintaining access to reliable water supplies and sustainable local economies in order to support broad public values.
- f. **Providing consistency between state and federal** agency determinations regarding environmental and hydraulic baseline conditions, objectives, and regulatory requirements.

Advisory Committee's Recommendations

As a pathway to implementing these strategies, the Advisory Committee has assembled a suite of specific recommendations for the Board. Recommendations are shown below in **Bold**, grouped by key topic areas. In some cases, explanations are included below the recommendations.

The intent of these recommendations is to present the Conservation Strategy and its Measurable Objectives in as clear and transparent a manner as possible, with the goal that the 2017 Update be supported (or not actively opposed) by as many regional water supply, flood protection, environmental and agricultural interests as possible. After several months of discussion this multi-stakeholder group recognizes that the problem appears, in many areas, to be primarily one of perception, rather than clear disagreement. Accordingly, this group has worked to reach consensus- on language to be included both in the CS and the 2017 Update with the goal to lessen anxiety and, if possible, increase buy-in from key stakeholders.

Conservation Strategy (CS)	
As a pathway to implementing both the general suggestions above, and the specific recommendations that follow, the Advisory Committee respectfully recommends that:	
Re: Conservation Strategy	<p>1. Subject to recommendations 2 and 3 below, the CS be approved and adopted as a non-regulatory planning framework in the 2017 CVFPP Update.</p> <p>Used as a non-regulatory conservation planning tool and technical framework in connection with the 2017 Update, the Conservation Strategy (CS) document drafted by DWR can help to a) encourage permitting and funding of multi-benefit projects that achieve the goals of the 2017 CVFPP , b) support a regional planning framework with regional objectives that will allow</p>

	coordination of multi-benefit projects to achieve the goals and objectives at the regional/basin level, c) include means within the 2017 Update to quantify and track project outcomes, and d) meet the requirements of the authorizing legislation.
Measurable Objectives	
The Advisory Committee respectfully recommends that:	
Re: Conservation Strategy Measurable Objectives	2. Clarifying language be inserted into the “Purpose and Scope” (pg 1-1) of the CS to re-enforce that the Measurable Objectives are non-regulatory. See attachment 1 for specific recommended edits.
Re: Conservation Strategy Relationships	3. New language be inserted into the CS or existing language clarified to better define the informational nature and non-binding, non-regulatory impact of the CS on agricultural and regional water supply and flood stakeholders.
	a. <u>A “Multi-Objective” Preamble” section be added to the CS:</u> Insert language in the “Purpose and Scope” (pg. 1-1, paragraph 4) of the CS to lessen concerns from agricultural, water supply, and flood management stakeholders. See attachment 1 for specific recommended edits.
	b. <u>The CS include additional Ag land stewardship language:</u> Suggested edits to Section 6.3, Agricultural Land Stewardship, will further affirm a dedication to agricultural land stewardship and agricultural economies and lessen concerns from agricultural stakeholders over potential impacts of the CS. See attachment 1 for specific recommended edits.
Re: Avoiding, Minimizing & Mitigating Agricultural Impacts	4. <u>The 2017 CVFPP Update address the following sub-recommendations relating to avoidance, minimization, and mitigation of agricultural impacts:</u>
	a. <u>DWR consider referencing past agricultural and water supply mitigation commitments and strategies from other CVFPP and DWR products in the 2017 Plan, the CS, or both:</u> The group identified language affirming a dedication to agricultural land and water supply stewardship and regional economies in various other CVFPP and CVFPP-related documents. Referencing or incorporating existing mitigation measures and other past commitments and

	<p>potential strategies to avoid, minimize and mitigate agricultural and water supply impacts, in the CS or 2017 plan could help to address regional concerns by signaling a substantive commitment to stakeholders and communities in the Plan implementation region and should be considered for this purpose.</p>
	<p>b. <u>DWR review, update and, potentially, expand the list of 2017 CVFPP environmental commitments with respect to avoidance, minimization, and mitigation of agricultural impacts</u> to address concerns from agricultural stakeholders.</p>
Re: Conservation Opportunities	<p>5. The explanation of “conservation opportunities” in the CS and CVFPP 2017 Update be clarified by defining the flood system footprint used to determine these opportunities, including improved discussion of nesting habitat, and overlapping habitat, agricultural land categories, assumptions regarding percentages of restored habitat, and new versus existing bypass areas.</p> <p>Landowner incentives to develop multi-benefit projects along with collaborative project design, will hinge, in part, on transparent understanding of conservation opportunities, how they are determined, and their footprint. These things are insufficiently explained in the CS and are difficult to follow.</p>
Re: RFMP Projects	<p>6. The 2017 CVFPP update analyze the extent to which projects put forward in the Regional Flood Management Plans (RFMP) achieve, coincide with, overlap, or diverge from the habitat objectives of the CS’s Conservation Planning Areas. These analyses should be incorporated into planning and made publicly available.</p> <p>A commonly held perception in the regional flood management community is that Measurable Objectives would place undue and onerous burden on Local Maintaining Agencies (LMA). Preliminary analyses of Advisory Committee work indicates that the majority of the habitat objectives in the CS may be met by projects already proposed or considered in RFMPs (Feather and Lower Sac). Refining and extending these analyses to other regions may help reduce concerns about detrimental impacts of the CS measurable objectives on LMAs. In future updates to the CVFPP and the CS, there is a need for analysis and reconciliation of the CS measurable objectives with the projects proposed in the RFMPs.</p>

Multi-Benefit Examples	<p>7. The CVFPP 2017 Update highlight and provide specific examples of multi-benefit projects that achieve those multiple benefits and also demonstrate integration of agriculture, flood system, water supply, and ecosystem planning. The examples should include specific descriptions and quantitative measures of how and to what extent select projects can help to advance measurable objectives for regional conservation and flood risk improvement.</p>
Flood Risk Measurable Objectives	<p>8. The CVFPP 2017 Update ensure transparent documentation of and support for measurable objectives for flood risk improvements.</p> <p>Transparent documentation and support combined with financial incentives for multi-benefit projects in RFMPs will improve the number of projects implemented that contribute to <i>both</i> flood risk and environmental conditions and will facilitate integration of regional flood risk and environmental benefit projects into basin-scale planning.</p>
Funding	
<p>Implementation of the CVFPP will necessitate a robust funding strategy that achieves the goals of improved flood management and recovery of ecosystem function, while creating financial incentives for projects that address compatible multi-benefit objectives, where feasible. The success of the CVFPP will specifically hinge on sufficient funds to incentivize land-owner participation, fully support projects (through design, permitting, implementation, and ongoing operations and maintenance), and provide for timely and robust engagement by partner agencies over the long-term.</p> <p>To ensure the guidance related to funding in the CVFPP 2017 Update, all CVFPP associated funding guidelines, and the RFMP process are sufficient to enable the CVFPP's implementation, the Advisory Committee respectfully recommends that:</p>	
Re: Funding for Multi-Benefit Objectives	<p>9. The Board consider making a recommendation to the Legislature that additional funding sources be identified and appropriated to achieve the goals of the Central Valley Flood Protection Plan by providing funding for multi-benefit components of projects that can be implemented, in addition to the flood management actions that have been already identified in the RFMPs and Basinwide Feasibility Study.</p> <p>The Legislature specified in Water Code Section 9616 (a)(9) that the plan increase the quantity, diversity, and connectivity of habitats, where feasible. According to DWR's lawyers, the majority of the initial funding for the plan (Proposition 1E, 2006) provided funds for flood improvement projects and mitigation,</p>

	<p>but not for the multi-benefit purposes of Section 9616 (a)(9). To enable progress over time toward achieving intended multi-benefit objectives of the CVFPP, beyond a base level of simple mitigation, the AC feels there is a need to both identify additional funding sources to implement multi-benefit projects and structure DWR's grant process to financially incentivize multi-benefit projects. Successfully implementing multi-benefit projects will additionally require that projects are fully funded and that funding sources are available to implement all project components.</p>
Re: Funding for RFMP Projects	<p>10. State funding be provided to RFMPs for:</p> <ul style="list-style-type: none"> a. Design of RFMP projects to integrate and reconcile CS measurable objectives and regional priorities; b. Design of RFMP projects to support flood safety and CVFPP multi-benefit objectives as informed by the CS measurable objectives at the basin scale; c. Quantify the individual and collective contribution of RFMP projects toward meeting the objectives of the CVFPP by advancing both the CS measurable objectives and flood management objectives; and d. Provide incentives and funding to support planning and implementation of multi-benefit flood projects in areas with disadvantaged communities.
Re: Funding for Habitat	<p>11. The Board request the Legislature appropriate funds to create expanded habitat mitigation banking opportunities and incentivize private landowner participation in expanded ecosystem service markets, as a potential means to cover design, permitting, implementation, ongoing operations and maintenance, and greater engagement by partner agencies over the long-term. Additionally, the CVFPP 2017 Update could identify a mechanism to fund long-term maintenance costs for multi-benefit projects.</p> <p>Examples of potential sources of long term O&M funding could include a system for habitat-based crediting that would provide:</p> <ul style="list-style-type: none"> a. Expanded private mitigation banking opportunities and ecosystem service markets; b. Payments to private landowners for actions voluntarily undertaken to achieve ecosystem benefits and habitat uplift related to O&M activities, and c. State funding for O&M on projects that provide a system-level benefit.

Re: Funding for State Agency Coordination	<p>12. The Board consider recommending that the Legislature provide funding to other state agencies that have primary responsibilities affected by the Plan so that these agencies can more directly participate in project planning, design, and operation and maintenance. Additionally, we recommend that the CVFPP 2017 Update include language to specifically identify long-term dedicated funding needs for participation by responsible state agencies and identify or suggest specific pathways through which that funding may be pursued.</p> <p>Resource agencies face limitations in terms of available funding to support full and timely engagement in flood project planning and implementation. Existing agreements provide a useful model to support the expanded and comprehensive participation of resource agencies in the CVFPP process. However, those agreements are short-term arrangements and do not address the full implementation period of the CVFPP. Identifying and pursuing long-term dedicated funding for these agencies would help to support successful implementation of the CVFPP.</p>
Re: Cost Share Funding	<p>13. The CVFPP 2017 Update (and companion State Systemwide Investment Approach) describe the need for improved incentives and cost sharing by:</p> <ul style="list-style-type: none"> a. including language that specifies applicable cost share funding sources going forward including increased cost-share by the State (primarily), the federal government, and other existing and future funding programs; b. specifying the necessity and intention for state cost share to be available through project planning, implementation, and O&M. c. including language that recognizes need for additional incentives and increased cost share by the State for project planning and implementation in areas with disadvantaged communities.
Environmental Permitting and Easements	
<p>Permitting is a legal necessity for all project implementation, and some Operations, Maintenance, Repair, Rehabilitation, and Replacement (OMRR&R) activities within the flood system. Some of the most challenging permitting issues related to the flood system are environmental permits (addressing, e.g., species, habitats, ecological function, etc.). As a result of the challenges associated with environmental permitting, new projects and OMRR&R activities have and will continue to become more expensive, be delayed, or possibly not be implemented at all. Alternatively, there are concerns that due to the lack of affordable and efficient permitting processes, activities that must occur, particularly O&M</p>	

or repairs, may be conducted without the necessary environmental regulatory permits. Yet implementation of new projects, multi-benefit or otherwise, and OMRR&R of the existing flood project facilities will in many cases yield important benefits for the people of California, just as proper permitting can provide valuable protections for environmental assets when management actions are implemented. Striking the balance among these goals will be necessary to the successful implementation of California Water Code (CWC) § 9600-9625 through the guidance offered in the CVFPP.

In order to facilitate effective environmental permitting for flood management activities, including projects, **the Advisory Committee respectfully recommends that:**

<p>Re: OMRR&R Permitting</p>	<p>14. The Board address the need for a viable process for long-term OMRR&R permitting at a regional or system-wide scale. This process should allow for necessary changes over time to habitat in a specific location, while at the same time seeking to maintain and improve the overall mosaic of habitat values within the system as a whole. We recommend the Board seek to realize this vision by developing an approach and initiating a state-federal process to develop and implement this approach by the 2022 CVFPP Update.</p> <p>Long-term permitting of OMRR&R at a larger scale is expected to be more cost-efficient, more effective, and to provide opportunities for environmental uplift while accomplishing needed management actions.</p>
<p>Re: Improved Permitting Process</p>	<p>15. The Board, with help from DWR and other agencies and stakeholders, initiate and facilitate an improved environmental permitting process that will allow multi-benefit projects to be</p> <ul style="list-style-type: none"> a. More readily accomplished, b. More cost-efficient, c. Satisfy legal requirements, and d. Achieve CVFPP goals. The permitting process should allow bundling of projects within and across regions to collectively achieve multiple benefits, and reduce regulatory restrictions and mitigation requirements overall. <p>The current environmental permitting system is inefficient and expensive, and is a significant impediment to supporting the goal of environmental uplift and accomplishing needed management actions within the flood system. While multiple avenues to address this need have been recommended, explored, proposed and, on a limited basis, actually implemented (e.g., HCPs, advanced mitigation), the need for significant improvement remains.</p>

Re: Innovative Permitting Approaches	<p>16. The CVFPP 2017 Update specify the need for and initiate a summary and analysis of any innovative permitting approaches that have worked, where problems have been encountered, and also describe any promising new approaches or initiatives that might be pursued in the future.</p> <p>Such an analysis would facilitate and inform the development of a new or revised permitting approach. Efforts to design an improved permitting process could be initiated, in part, with an evaluation of promising new approaches or initiatives.</p>
Re: Project Permitting	<p>17. The CVFPP 2017 Update consider the need for permitting of management actions at regional, inter-regional, and system scales to allow projects in disparate parts of the system to be linked in project bundles that together achieve multiple benefits.</p> <p>Use of a larger spatial scale in a permitting framework may support permitting efficiency and allow better achievement of the mix of CVFPP goals.</p>
Re: Easements	<p>18. The Board consider procedures to improve monitoring and enforcement of its easements and better address the need for on-going channel maintenance.</p> <p>There have been suggestions that some easement requirements—for example, with respect to flood carrying capacity and encroachments—are not being met, and should be more rigorously and systematically monitored and enforced. Similarly, some Advisory Committee stakeholders have concerns that DWR and State of California are not adequately performing ongoing channel or bypass maintenance within the State System of Flood Control. Necessary maintenance should also be considered as part of any streamlined permitting approach under the CVFPP. Maintenance activities should be informed by the CS and should be designed to be compatible with environmental goals, which will ease permitting.</p>
Re: Regulatory Requirements	<p>19. The CVFPP 2017 Update consider the need for coordination between local, State and Federal permitting and regulatory agencies to ensure that regulatory requirements imposed during the permitting process do not impede and/or conflict with the implementation of multi-benefit projects.</p>
Coordinating Implementation	

<p>Collaboration, communication and coordination between local, state, and federal agencies is a necessity for effective flood project implementation and Operations, Maintenance, Repair, Rehabilitation, and Replacement (OMRR&R) within the flood system. As previously stated, some of the most challenging permitting issues related to the flood system are environmental permits, and this process can be made more effective and efficient through improved coordination and communication. To achieve the coordination necessary for effective implementation of multi-benefit flood projects, the Advisory Committee respectfully recommends that:</p>	
Re: Collaboration Support	<p>20. The Board continue and build upon the improved collaboration and public outreach that has occurred to date on the CVFPP including, for example, the Coordinating Committee, the RFMPS, DWR outreach, etc.</p>
Re: Planning Using Measurable Objectives	<p>21. The CVFPP 2017 Update seek to establish clearer links between the CS measurable objectives for flood risk and ecosystem uplift at local state and federal planning efforts, so that those parallel efforts can more effectively advance shared Ecosystem and Flood Risk objectives.</p> <p>This will clarify how single or regional projects can accomplish the objectives of multiple agencies.</p>
<p>Tracking Outcomes</p>	
<p>In order to effectively integrate flood risk management and ecosystem enhancements, it is critical to have guidance related to: a) estimated species and habitat needs; b) what subset of those needs can be achieved within the geographic extent of and through the implementation, operation, and management of the flood system; and c) what the measurable performance objectives (for both ecosystem and flood benefits) are, by region within the flood system, to define success and guide and inform both regional project development and basin level design. The CS can be used as one means, both before and after implementation of projects, to track outcomes, measure performance, and assess success in these critical areas (a-c) relative to CVFPP goals. In order to effectively track outcomes, the Advisory Committee respectfully recommends that:</p>	
Hydraulic and Environmental Baselines	<p>22. The Board address the need for establishment of environmental and hydraulic baselines for the purposes of outcome tracking.</p> <p>For the purposes of measuring and assessing the effects of actions that will be implemented over an extended period, it is important that persistent initial baselines be established.</p>
Re: Monitoring and Tracking Process	<p>23. The Board develop and implement a transparent process, independent of environmental permitting, that applies the CS and measurable objectives for both ecosystem uplift and improved flood management to assess and track the</p>

	<p>contribution of future projects to a functional flood system.</p> <p>A primary opportunity of measurable objectives is the ability to track and quantify progress towards a desired outcome. The CVFPP, including the CS, provides a transparent vision for a functional flood system that simultaneously meets ecosystem and flood management objectives. This, in turn offers the Board the opportunity to track the progress of that vision being realized through time, as projects come before them, and to make recommendations, consistent with the objectives, that support and facilitate flood system function. That the CVFPP 2017 Update, to the extent possible, describe and provide guidance related to how flood system conditions, including both ecosystem and flood performance, should be monitored and tracked.</p>
Re: Hydraulic Setting	<p>24. The CVFPP 2017 Update describe an ongoing process for assessing understanding of the hydraulic setting of the flood system, to help identify both: 1) maintenance needs to support flood conveyance and 2) where enhanced or modified habitat conditions can be safely accommodated from a hydraulic perspective.</p> <p>This will help to inform the planning of maintenance activities to allow better adaptive management of the system as a whole. It will generate better information to assess whether maintenance (e.g., sediment removal) to restore conveyance is hydraulically necessary. Similarly, such information will help to determine if deferral of maintenance or even enhancement of vegetative conditions for habitat purposes is feasible and not in conflict with conveyance goals.</p>

Attachment 1– Specific language of Recommendations 2 and 3

Recommended edits to the text of the Conservation Strategy shown in red:

1.1 Purpose and Scope

The purpose of this Conservation Strategy is to provide:

- a comprehensive, long-term, **non-regulatory** approach for improving riverine and floodplain ecosystems through multi-benefit projects that provide ecological benefits while protecting public safety;
- a regional programmatic framework for increasing the predictability and cost-effectiveness of permitting, while resulting in more effective and less costly conservation outcomes; and
- contextual information and tools for use in planning and permitting processes.

More specifically, this Strategy:

- discusses the importance of incorporating environmental improvements into flood risk management activities;
- provides goals and measurable objectives for monitoring and evaluating progress in implementing conservation in conjunction with investments in flood reduction actions;
- describes approaches for integrating ecosystem restoration into multi-benefit flood risk management projects and for fostering agricultural stewardship;
- provides a strategic approach for DWR and other agencies (federal, State, and local) to achieve permitting efficiencies for capital improvements and system maintenance in conjunction with ecosystem improvements, and provides the foundational scientific **and institutional** information needed to implement such an approach;
- recommends an implementation approach likely to attract greater cost-sharing due to the broader range of benefits it yields; and
- proposes an adaptive management approach that relies on ongoing monitoring and evaluation to adapt plans, designs, construction, operations, and maintenance to achieve the goals and objectives of the CVFPP.

This Conservation Strategy is intended to be implemented through actions by DWR and its partners in flood management and conservation in the Sacramento and San Joaquin Valleys. These partners include federal and State agencies, Local Maintaining Agencies (LMAs), local communities, and nongovernmental organizations.

This Strategy applies DWR’s Environmental Stewardship Policy to the SPFC. Environmental stewardship embodies responsibly managing and protecting natural resources (water, air, land, plants, and animals) and ecosystems in a sustainable manner. DWR’s Environmental Stewardship Policy, formally adopted in September 2010, applies to water and flood risk management projects and activities throughout DWR’s jurisdiction (DWR 2010a). This policy specifies that DWR will incorporate ecosystem restoration as an objective in water and flood management projects, including partnering with the restoration efforts of others, to achieve

net environmental benefit. The intent is to produce environmental benefits at a scale that can provide long-term sustainability from economic, social, and environmental perspectives.

This Conservation Strategy also reaffirms the larger CVFPP's recognition of the importance of agriculture to both the ecosystem and flood management system. Agriculture is the dominant land use in the Central Valley and represents a necessary and vital component of our State's economy. Maintaining rural open space and agriculture supports existing habitat values and is also an integral component of prudent floodplain management. Keeping land in agriculture prevents the conversion of agricultural land to development. This helps to limit the population at risk in these basins and also helps to minimize the damageable property at risk. At times these agricultural lands might act as temporary storage during extreme high water events. Moreover, within the footprint of the Sacramento-San Joaquin Flood Project itself, agriculture maintains the flood carry-capacity of the system, directly and indirectly provides on-going system maintenance benefits, and provides important habitat and ecosystem services. Agricultural production also provides an important revenue source to support the ongoing management of state- and federally-owned lands within the flood system. In recognition of the importance of agriculture to the state's flood management objectives in the Central Valley, the Conservation Strategy will be implemented in a manner that considers achieving the measurable objectives on agricultural working lands where feasible. Where the measurable objectives cannot be achieved on agricultural lands, impacts to agriculture will be minimized and mitigated to ensure the sustainability of the agricultural economy.

~~Consistent with the purpose of the CVFPP as a whole, this~~ The Conservation Strategy is a planning document; ~~as such~~ it does not establish any new performance obligations upon DWR or other LMAs within the SPFC areas of responsibility with regard to attaining ecological restoration objectives. All proposed actions are subject to feasibility constraints, such as available funding, statutory authority, policy constraints, cost-effectiveness, and acceptability. The proposed framework of measurable objectives is intended to begin the process of developing a scientifically supportable and stable framework for evaluating progress over time rather than setting absolute performance criteria for DWR to meet. They do not impose a new regulatory framework on DWR, nor does DWR have the authority to impose such a framework on LMAs.

It should be recognized that LMA's who are tasked with managing the levees systems have limited financial capacity and are already struggling to meet evolving O&M requirements. Grant programs that provide financial incentives will be an important tool in advancing multi-benefit projects. The additional requirements of habitat creation and subsequent maintenance and monitoring of that habitat are benefits of Statewide and National importance and therefore those costs should not be the sole responsibility of local agencies.

It is DWR's intent to integrate environmental restoration actions with flood system operations, maintenance, and capital improvements, in a manner that increases the resilience of the flood management system and supports the State's efforts to adapt to climate change. Within this framework, environmental restoration actions will be an integral element of the proposed strategies for improving flood system permitting efficiency, with significant new restoration actions linked to improvements in permitting efficiency.

The Conservation Strategy was crafted with an understanding of the evolving regulatory framework, which at times imposes conflicting mandates on DWR and other agencies with responsibility for flood system operation, maintenance, and capital improvements. Foremost among these conflicting mandates are the federal flood system maintenance criteria codified in 33 Code of Federal Regulations (CFR) 208.10, which requires rigorous maintenance of flood system integrity and capacity, and the host of environmental protection laws enacted mostly after the State accepted responsibility for maintenance of federal project features. In some cases, it is not possible to comply with both federal project maintenance and environmental protection imperatives. Consistent with and anticipating the resolution of conflicts among mandates, the Conservation Strategy seeks to encourage restoration consistent with mandated flood system operation and maintenance.