4.0 Goals and Principles

Planning is a rational process for determining appropriate future actions to achieve desired end results. As described in Chapter 3, problems and opportunities provide a reason for people to come together and engage in the planning process. Once problems and opportunities are clearly defined, broad goals are crafted describing desired end conditions. Defining goals is a critical step in the planning process because they help articulate what the planning partners aim to achieve and the ways the plan will be measured for success.

After goals were defined to address identified problems and opportunities, initial planning principles were established. Planning principles provide guidance on how to develop solutions to address the stated goals for the 2012 Central Valley Flood Protection Plan (CVFPP) (and future updates), and to implement the CVFPP over time. Once the planning principles were defined, an initial list of potential planning objectives (described in Chapter 5) were crafted for the 2012 CVFPP to focus on what will be done to address the goals. Individual management actions – specific steps to help achieve the goals and objectives and resolve resource problems - will then be developed in the next phase of the 2012 CVFPP.

This chapter discusses the following:

- FloodSAFE California (FloodSAFE) goals
- CVFPP goals
- CVFPP planning principles

4.1 Goals

In the planning process, goals describe the broad and enduring values, and direction or desired conditions we want to achieve, without prescribing or suggesting specific actions to achieve them. As part of California Department of Water Resources (DWR) FloodSAFE initiative, development of the 2012 CVFPP is guided by both the overarching FloodSAFE goals and goals specific to the CVFPP, which are described below.
4.1.1 FloodSAFE Goals

The FloodSAFE Initiative includes a broad range of goals and objectives, as described in the draft FloodSAFE Strategic Plan (DWR, 2008a). DWR will work with partners to make the decisions and investments necessary to achieve the FloodSAFE goals, which are as follows:

- **Reduce the Chance of Flooding** – Reduce the frequency and size of floods that could damage California communities, homes and property, and critical public infrastructure.

- **Reduce the Consequences of Flooding** – Take actions prior to flooding that will help reduce the adverse consequences of floods when they do occur and allow for quicker recovery after flooding.

- **Sustain Economic Growth** – Provide continuing opportunities for prudent economic development that supports robust regional and statewide economies without creating additional flood risk.

- **Protect and Enhance Ecosystems** – Improve flood management systems in ways that protect, restore and where possible enhance ecosystems and other public trust resources.

- **Promote Sustainability of the Flood System** – Take actions that improve compatibility with the natural environment and reduce the expected costs to operate and maintain flood management systems into the future.

FloodSAFE includes a variety of programs and projects, such as the CVFPP, that will contribute to and collectively achieve the above goals.

4.1.2 CVFPP Goals

DWR, with its partners and interested parties, developed draft goals to address each of the identified problems and opportunities (described in Chapter 3). These goals provide clarity on how the CVFPP will address the defined problems and opportunities and contribute to the overarching FloodSAFE goals described above, consistent with the legislated intent as outlined in Senate Bill 5. The goal development process involved iterative input, review, and comment from multiple sources, including regional and topic work groups, partners and interested parties, and DWR staff and management. The draft goal statements evolved over time and reflect the latest collective input from these groups.
• **Improve Flood Risk Management** – Reduce the chance of flooding, and damages once flooding occurs, and improve public safety, preparedness, and emergency response through the following:

  - Identifying, recommending, and implementing structural and non-structural projects and actions that benefit lands currently receiving protection from facilities of the State Plan of Flood Control (SPFC).
  
  - Formulating standards, criteria, and guidelines to facilitate implementation of structural and non-structural actions for protecting urban areas and other lands of the Sacramento and San Joaquin river basins and the Sacramento-San Joaquin Delta (Delta).

• **Improve Operations and Maintenance** – Reduce systemwide maintenance and repair requirements by modifying the flood management systems in ways that are compatible with natural processes, and adjust, coordinate, and streamline regulatory and institutional standards, funding, and practices for operation and maintenance, including significant repairs.

• **Promote Ecosystem Functions** – Incorporate flood management system improvements that integrate the recovery and restoration of key physical processes, self-sustaining ecological functions, native habitats, and species.

• **Improve Institutional Support** – Develop stable institutional structures, coordination protocols, and financial frameworks that enable effective and adaptive integrated flood management (designs, operations and maintenance, permitting, preparedness, response, recovery, land-use and development planning).

• **Promote Multi-Benefit Projects** – Describe flood management projects and actions that also contribute to broader integrated water management objectives identified through other programs.

The draft CVFPP goals reflect the collective views and perspectives of a broad range of partners, interested parties, and the public on important issues and areas that the CVFPP should address. The goals do not commit the State to implementing projects to address problems outside the SPFC (California Water Code Section 9603); rather, the State will work with local and regional entities to help identify and coordinate projects that address problems and needs related to integrated flood management within the Central Valley but outside the SPFC. The CVFPP goals are intended to be broad and enduring; consequently, it is not anticipated that they would change significantly over time as the plan is updated.
Figure 4-1 illustrates the linkage between the problem and opportunity statements identified and described in Chapter 3 to each of the draft CVFPP goals. This linkage helps articulate concise goals that will address the problems that partners came together to solve, and guide the remaining steps in the planning process. It is important to understand that the problems and opportunities and the goals are intended to be broad statements. Because there are many individual contributing factors for each broad statement, various objectives may be developed to better define the planning goals, and many management actions may be identified to address the objectives and goals.
4.0 Goals and Principles

Identified Problems & Opportunities

Risks and Consequences of Flooding—The Sacramento and San Joaquin river basins have been subject to flooding and increased flood risk to people and property due to physical and operational constraints of the existing flood management systems, reliance on flood management facilities that do not provide the level of protection currently desired, changing land uses in flood-prone areas and limited understanding of flood risk. Flood risk is likely to continue to increase in some areas of the river basins due to climate change.

Operation and Maintenance—O&M (including significant repairs) of the flood management systems in the Sacramento and San Joaquin river basins are difficult and often deferred due to limitations from original system design, prevalent system encroachments, inconsistent standards and practices, complex and onerous permitting and mitigation requirements, and lack of reliable funding sources and financial instruments.

Ecosystems—Many management actions that could be taken to improve flood risk management and O&M can also provide significant opportunities for improvements to native habitats and species, and important natural hydrologic, geomorphic, and biologic processes in the Sacramento and San Joaquin river basins.

Policy and Institutional—Responsibilities and roles for flood management in the Sacramento and San Joaquin river basins are dispersed among many agencies with varying functions and priorities. Development of the CVFPP provides an opportunity to improve the common understanding and coordination of flood management agency roles, responsibilities, and policies; promote more informed consideration of flood risk in land-use planning; and address expected needs for funding.

Integrated Water Management—The flood management systems within the Sacramento and San Joaquin river basins rely on physical hydrologic features, infrastructure, and institutional arrangements that affect other components of water resources management. Flood management requirements often make it difficult to meet other water resources needs. Many management actions that could be taken to improve flood risk management and O&M can also provide significant opportunities for improvements to water supply, water quality, ecosystem functions and attributes, and recreation.

CVFPP Goals

Improve Flood Risk Management—Reduce the chance of flooding, and damages once flooding occurs, and improve public safety, preparedness, and emergency response through the following:

- Identifying, recommending, and implementing structural and non-structural projects and actions that benefit lands currently receiving protection from facilities of the SPFC.
- Formulating standards, criteria, and guidelines to facilitate implementation of structural and non-structural actions for protecting urban areas and other lands of the Sacramento and San Joaquin river basins and the Delta.

Improve Operations and Maintenance—Reduce systemwide maintenance and repair requirements by modifying the flood management systems in ways that are compatible with natural processes, and adjust, coordinate, and streamline regulatory and institutional standards, funding, and practices for operation and maintenance, including significant repairs.

Promote Ecosystem Functions—Incorporate flood management system improvements that integrate the recovery and restoration of key physical processes, self-sustaining ecological functions, native habitats, and species.

Improve Institutional Support—Develop stable institutional structures, coordination protocols, and financial frameworks that enable effective and adaptive integrated flood management (designs, operations and maintenance, permitting, preparedness, response, recovery, land-use and development planning).

Promote Multi-Benefit Projects—Describe flood management projects and actions that also contribute to broader integrated water management objectives identified through other programs.

Figure 4-1. Correlation of Identified Problems and Opportunities to CVFPP Goals
Goals are described previously as enduring – things that will continue to be important into the future. As such, the CVFPP goals are not anticipated to change significantly over time. Although the CVFPP will continue to evolve as implementation progresses and updates are completed every 5 years, the CVFPP goals are expected to continue to provide lasting direction and focus to integrated flood management efforts in the planning areas.

4.1.3 Relationship to the FloodSAFE Goals

As mentioned previously, the CVFPP goals provide additional detail on how the CVFPP can help contribute to FloodSAFE. The relationship between FloodSAFE goals and CVFPP goals has several commonalities and intersections between the two sets of goals.

4.2 CVFPP Planning Principles

While goals provide direction on “what” the CVFPP will accomplish, planning principles provide guidance on “how” the CVFPP will be developed and implemented, consistent with the FloodSAFE guiding principles. Initial planning principles for the CVFPP have been grouped into five broad categories, as discussed below.

4.2.1 Flood Risk Management

- Approach flood risk management on a systemwide basis and avoid (where feasible) or mitigate adverse or redirected hydraulic, environmental, and other impacts.

- Apply available State funds for flood management improvements in ways that amplify benefits provided through cooperative cost-sharing with federal and local partners.

- Provide information about flood risks and flood preparedness to help residents, communities, and public officials make safer decisions and manage residual risks.

- Adapt and implement flood management improvements that recognize inherent differences regarding flooding mechanisms and the value of flood protection (for example, urban, small communities, non-urban), while reducing the likelihood of sudden and catastrophic failures.
4.0 Goals and Principles

4.2.2 Environmental Stewardship

- Identify conservation strategies that improve the quantity, biotic diversity, and connectivity of riparian, wetland, floodplain, and shaded riverine aquatic habitats, and promote the recovery and stability of native species populations.

- Protect and improve natural floodplain processes, recognizing the agricultural and ecological values of floodplain lands and promoting environmental stewardship as a public benefit.

- Adapt and implement systemwide flood management and environmental stewardship strategies that promote resilience to ongoing and future challenges such as climate change.

4.2.3 Integration and Coordination

- Recognize the broad benefits provided by agriculture, and integrate flood management system improvements that help support a sustainable agricultural economy.

- Integrate flood management with other water management actions (such as groundwater storage, reservoir reoperation, and environmental stewardship).

- Integrate considerations of flood risk management and corresponding liabilities in land use planning.

- Provide potentially affected parties with meaningful opportunities to participate in the CVFPP development process and subsequent implementation actions.

- Clarify flood management roles and responsibilities and associated liabilities for providing flood protection and assisting in recovery from damaging floods.

4.2.4 Common Themes

A common theme in the draft CVFPP planning principles is that future flood management projects in the Central Valley need to embody an integrated, systemwide approach. This acknowledges how, historically, cumulative impacts of modifications to the river systems have often had unintended effects on communities, habitats, and other resources in the Central Valley. Another theme reflected in many of the principles relates to coordination, cooperation, and information-sharing among agencies and
parties involved in flood management, environmental stewardship, land-use planning, and decision making in the Central Valley.
5.0 Initial Draft Objectives

The next step in the planning process is to define specific objectives for the 2012 Central Valley Flood Protection Plan (CVFPP). Objectives provide additional detail on how the 2012 CVFPP will contribute to the identified goals, and serve as a means of measuring success in achieving those goals over time. Once the objectives are defined, management actions will be developed. Management actions are specific structural and nonstructural measures that could be carried out to achieve the objectives.

This chapter includes discussion of the initial draft objectives for the 2012 CVFPP identified to date.

5.1 Initial Draft Objectives for the 2012 CVFPP

Objectives are indirectly developed from the identified problem and opportunity statements (Chapter 3), and CVFPP goals (Chapter 4). Some objectives may address or contribute to a single CVFPP goal, while others may contribute to multiple goals. Collectively, objectives are intended to define the overall accomplishments expected of the 2012 CVFPP. The objectives are not specific actions to achieve the goals, but more an overall measure of success of the plan. Some objectives may address or contribute to a single goal, while others may contribute to multiple goals. It is expected that the objectives identified to date will be modified or refined as the CVFPP progresses. It is anticipated that additional objectives will be identified and refined every 5 years when the CVFPP is updated. Objectives will work toward achieving the goals for the 2012 CVFPP described in Chapter 4, as illustrated in Figure 5-1. Some objectives may be achieved within a short time frame, while others may take many years to achieve.
Collectively, the objectives are intended to define the overall accomplishments of the 2012 CVFPP. The objectives are not specific actions to achieve the goals, but rather an overall measure of success of the plan.

Ideally, objectives should strive to identify a potential level of accomplishment that either individual management actions or combinations of management actions can achieve. While contributions to the goals may differ from region to region and project to project, sets of management actions should collectively contribute to each of the goals. An objective should also be framed in a way that makes it easy to determine the extent to which it has been met or achieved. This will help California Department of Water Resources (DWR) and its partners to later measure the progress and level of accomplishment of the CVFPP as it is implemented and updated.

Developing the appropriate level of specificity or geographic scale of an objective is a difficult process and will require multiple iterations. In the first phase of plan development, work done with Regional Work Groups to develop objectives focused on identifying categories or themes around which objectives could be formed, developing sample objectives, and discussing how these sample objectives could contribute to the draft goals for the CVFPP. There are some factors that make it challenging to develop time-based and measurable objectives. The ability to determine feasibility and time frame is heavily dependent on updated information from many of the studies and investigations DWR is currently undertaking. Other challenges in developing systemwide objectives for the CVFPP are the different regional priorities throughout the entire Sacramento and San Joaquin river basins. Some objectives may be important for one region, and may not be a high priority for another. Because of the differing
viewpoints, it became incredibly difficult to agree upon specific time frames and exact acreages of the initial draft objectives.

The following themes for objectives were identified by study partners and interested parties for further exploration and development. These themes do not represent a complete or final list that will be included in the 2012 CVFPP, but rather reflect the important issues around which partners and interested parties would like to see objectives crafted as plan development continues.

- Provide greater flood protection
  - Within the State Plan of Flood Control (SPFC) Planning Area
  - Outside the SPFC Planning Area
- Increase habitat within the flood management system
- Establish streamlined permitting processes
- Improve emergency preparedness and flood recovery planning
- Reduce long-term operations and maintenance costs
- Educate the public on potential flood risks
- Contribute to groundwater recharge and other integrated water management benefits
- Create sustainable funding mechanisms for flood management activities
- Improve land management within floodplains and floodways

In the next phase of CVFPP development, additional work will be done to develop and refine objectives for the 2012 CVFPP based on the identified themes and consistent with the goals and principles. This work will be done concurrent with the identification of management actions.

Additional discussion and analysis will be needed to develop specifics related to measurement, timing, and geographic focus, where applicable. For some objectives this will require collection and application of technical data and other information to identify the magnitude, location, and extent of opportunities to realize objectives within the planning areas. For example, information being developed as part of the Flood Control System Status Report will provide technical data related to flood control facility status and current performance that will be instrumental in establishing an
appropriate timeline for achieving any objectives related to SPFC facilities. Further, some objectives may address problems that occur only in specific regions or locations; refinement of these objectives will need to consider where the underlying problems are occurring to establish appropriate and achievable quantities and completion dates.

Objectives will be formulated and refined in an iterative process that will continue throughout development of the 2012 CVFPP. It is anticipated that working groups will be created and assigned to help identify appropriate and achievable specifics related to quantities, timing, and extent, using existing and available data and new information being developed by DWR and its partners, as appropriate.