

## CHAPTER 5. IMPLEMENTATION

The preceding chapters of this master plan outlined categories of current and potential Solano County Water Agency (SCWA) participation in resolving flood control problems. These categories include planning, activities, and coordination. This chapter discusses the type and level of SCWA staff and financial resources required and provides recommendations for implementation of the tasks identified in each of these categories.

### FLOOD CONTROL/DRAINAGE PLANNING

In Chapter 2, three levels of SCWA participation were defined within the flood control/drainage planning category; grants, local Watershed Management Plans (WMPs), and U.S. Army Corps of Engineers (COE) WMPs. It may also be possible to work cooperatively with the National Resource Conservation Service (NRCS) in watershed management planning and program development. Each of these is discussed below.

#### SCWA Grant Program

The grant program should continue to address the short term flood control needs. This program should focus on the critical flood control problems which threaten life and property. Less severe problems may be addressed through the more comprehensive WMPs. The suggested funding level for the grant program is between \$50,000 to \$100,000 annually, requiring approximately two to three person months of staff resources.

#### Local Watershed Management Plans

This Phase II report recommends the local WMPs as the primary mechanism for SCWA participation in development of flood control solutions. Through development of local WMPs, SCWA will be more involved in county-wide flood control planning and will lead a comprehensive approach to flood control. Local WMPs are the first step in defining and implementing flood control projects and management programs. The local WMPs are not only valuable in defining solutions for watersheds, but will also provide the basis for securing state and federal funding.

Although specific WMPs were recommended for the problem areas in Chapter 2, the ultimate area covered by the WMPs, the projects and programs included in each, and the participants will be determined by the interests of the local stakeholders and the public. The following criteria can provide the basis for prioritizing SCWA's participation in development of local WMPs.

1. Rank – The majority of the problem areas contained within the plan should have a high rank on the SCWA problem area listed Table 1-2.
2. Local Involvement – There should be a demonstrated willingness of the affected landowners and agencies in the area to participate in the development of the WMPs, and anticipated acceptance from the general public.

3. Funding – There should be a reasonable probability that funding can be obtained for implementation of the projects and management programs expected to result from the WMP. A commitment for cost sharing on studies or design could be outlined in a Memorandum of Understanding (MOU) before initiating work on the WMP. Possible funding sources for projects include local funding by participating agencies, in-kind services provided by landowners or reclamation districts (such as property easements and channel construction), state and federal grants, and benefit assessment districts. SCWA could assist in the coordination of funding, including establishment of benefit assessment districts. However, Proposition 218 “Voter Approval for Local Government Taxes, Limitations on Fees, Assessments, and Charges” has put additional requirements on all new assessments, making them more difficult to implement.
4. Downstream Impacts – SCWA’s goal is to support projects which limit the transference of problems downstream. However, the concern over transference of problems should not preclude consideration of a project. For example, if a project reduces the threat to lives or homes but increases nuisance flooding downstream, the project could still be viable. If downstream impacts are more significant, steps to mitigate the impact should be incorporated into the project.

### **Corps of Engineers Watershed Management Plans**

The COE WMPs are the third level of SCWA involvement in flood control planning. It is recommended that SCWA continue to participate in COE WMPs for the Fairfield Streams and Suisun Marsh Study (Suisun region) area and the Vacaville Study area (Ulati region). The ultimate scope and cost of these plans is being outlined by the COE. Preliminary estimates of plan costs range from \$1.5 to \$2.0 million, with completion estimates of 18 months to two years from the date of receipt of local and federal funds. SCWA financial participation in these plans will be contingent upon the overall cost of the plans, the elements of the plans, and the financial participation by other agencies. SCWA could provide in-kind services to these plans through developing those elements of the plans identified in this report as part of the local WMPs.

There were several local WMPs recommended in Chapter 2. Table 5-1 summarizes the recommended local WMPs, and suggests a priority for their consideration and an estimated cost for plan development. The priorities are based on the above criteria. The problem rank and the funding potential had the greatest influence on the suggested priority. Costs were not estimated for low priority plans. It is anticipated that many of these plans or elements of these plans may be incorporated into a larger COE WMP. The costs for plan development assume the plans will include data collection, hydrologic or hydraulic modeling, conceptual level project design, management program strategies, and financing options. It is anticipated that SCWA staff resources needed to oversee the plan development, coordinate with other agencies and the Flood Control Task Force, educate and promote public awareness, and seek funding sources and agreements will be approximately five to six person-months annually.

**Table 5-1. Recommended Watershed Management Plans**

Region	Watershed	Problem Areas	Local WMP Only	Local WMP Developed in Conjunction with COE WMP	Included Within COE WMP	Priority	Estimated Cost, \$1,000s
S	Freeborn Creek	Freeborn Creek			✓		(a)
	American Canyon Creek	American Canyon Creek			✓		(a)
	Jameson Canyon Creek	Jameson Canyon Creek			✓		(a)
	Green Valley Creek	Upper and Lower Green Valley Creek		✓		M	100-150
	Dan Wilson Creek	Dan Wilson Creek			✓		(a)
	Cordelia Slough	Cordelia Slough			✓		(a)
	Suisun Creek	Suisun Creek		✓		M	100-150
	Ledgewood Creek	Upper and Lower Ledgewood Creek		✓		H	100-150
U	McCune Creek	Winters Road, Wolfskill, Halley Road, Farmers' Drain		✓		M	50-100
	Sweeney Creek	Allendale Road, Above Timm Road, PCS to Timm Road, Ulatis Project to PCS, Lower Sweeney Creek		✓		M	50-100
	Gibson Canyon Creek	Gibson Canyon Creek			✓		(a)
	Horse Creek	Horse Creek			✓		(a)
	Ulatis Creek	Ulatis Creek			✓		(a)
	Alamo Creek	Alamo Creek			✓		(a)
D	Dixon	Batavia, City of Dixon, North of Dixon, Milk Farm, Northeast of Dixon, East of Dixon, South of Dixon, Maine Prairie, RD2068 Main, Hass Slough, Cache Slough	✓			M	50-100
	Yolo Bypass	RD2068 east and to PSS	✓			L	(b)
	Putah Creek	Putah Creek	✓			L	(b)
V	Sulphur Springs Creek	Sulphur Springs Creek	✓			L	(b)
	Homeacres	Homeacres	✓			M	50-100
M	Barker Slough	Barker Slough	✓			L	(b)

(a) Cost for WMP would be integrated with other problem areas into the overall COE WMP.

(b) Costs were not estimated for low priority WMPs.

Based on the estimated cost of the local and COE WMPs, it is recommended that SCWA set aside \$100,000 - \$200,000 each year for development of WMPs. The plans could be developed locally or in cooperation with the COE.

### **The Natural Resources Conservation Service National Watershed Program**

It may be possible to develop and implement WMPs in cooperation with the Natural Resources Conservation Service (NRCS). The NRCS administers a national watershed program as part of the United States Department of Agriculture (USDA) National Conservation Program. Through this program, NRCS assists states, local units of government, and other sponsoring organizations in addressing water-related and other natural resource issues, conducting studies, developing watershed plans, and implementing resource management systems. This program has included projects carried out under the Watershed Protection and Flood Prevention Act of 1954 (PL-566), such as the Ulatis Flood Control Project. Both Napa County and Yolo County Resource Conservation Districts have developed watershed management plans and watershed stewardship groups working with the NRCS.

The program objectives have changed over time in response to legislative direction, environmental concerns and changing social values. The objectives of many of the original projects were to reduce flooding, improve drainage and increase irrigation efficiencies. In recent years the projects have focused on land treatment measures to solve natural resource problems, such as substandard water quality and loss of wildlife habitat.

The NRCS has recently developed a new strategy and goals for the Watershed Program which encourages locally led watershed planning and implementation. The comprehensive plans resulting from this process describe conditions, needs, and alternative solutions including preventive actions and decisions. The plans guide individual efforts within watersheds to assure that conservation activities are focused on the highest priority concerns. The size of the planning area should be commensurate with local interest, issues and needs. The NRCS offers assistance to the planning effort in the following ways:

- Serves as the catalyst and facilitator for locally led watershed planning
- Advocates the health of land and water
- Provides resources information and assessments
- Provides overall planning assistance to local communities, through conservation districts and other groups
- Provides financial assistance through various implementation programs
- Assists in building locally led decision making on a watershed basis
- Assists sponsors in identifying other sources of funding

The first step in initiating a NRCS WMP is to identify areas of concern and submit a formal request to NRCS for assistance. The documentation and mapping of the problem areas in Phase I and this Phase II report could be used to support such an application.

Sponsors of NRCS WMPs are typically the local resource conservation districts, although others could serve in this role. Given the level of participation and interest shown in the two phases of this Master Plan, it is suggested that these agencies partner with SCWA in the management plans. It is recommended that SCWA:

1. Contact other agencies to form a partnership in the process and to focus on areas or watersheds of the greatest concern.
2. Invite NRCS to give a presentation to the SCWA Flood Control Task Force, Board, and other agencies on the process and the potential for implementation of one or more plans in the County.
3. Submit a formal request for assistance in developing one or more plans to NRCS through the local County NRCS representative.
4. Research requirements for outside funding and submit proposals to receive funding.
5. Investigate the costs of the plan and the consequent programs.

The NRCS has indicated that wide-scale interest and partnership by local, state, and federal agencies increases the chances of WMP funding. The Ulatis RCD cautions that these NRCS programs have not been funded at a high level and that funding is not likely to be available to Solano County. Additionally, the Dixon NRCS field office has limited staff and funding to participate in new programs as described in this Plan.

Solano County is in a good position to receive outside funding for WMPs and programs. County watersheds discharge directly into the sloughs and marshes of the Sacramento-San Joaquin Delta. There is considerable state and federal interest in enhancing water quality and fisheries and wildlife habitat in the Delta.

California Proposition 204, passed in 1996, contains in Chapter 5, Clean Water and Water Recycling Program, two articles through which the County could obtain funding for WMPs and programs. These are summarized below.

- Article 4 - Drainage Management provides funding for the construction of management projects for treatment, storage, or disposal of agricultural drainage water, with priority given to funding source reduction projects and programs.
- Article 5 - Delta Tributary Watershed Program provides funding for the development of voluntary incentive-based watershed rehabilitation projects.

In addition to the California initiatives, there is also funding available through the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Agriculture (USDA) Environmental Quality Incentives Program, and the State Regional Water Quality Control Board.

## FLOOD CONTROL/DRAINAGE ACTIVITIES

Chapter 3 outlined flood control/drainage activities which SCWA should pursue which are not focused on particular flood control problems but would be valuable to overall flood control efforts in the County. Table 5-2 lists these activities and provides an estimate of the potential cost. The last activity does not include a cost but will require considerable staff assistance with other local agencies. The staff requirements in assisting the DEM, and to a lesser extent cities, in the National Flood Insurance Program will depend on the type of assistance DEM will find beneficial to maintain and improve its current program. Involvement in storm water quality by SCWA at this time is limited but is expected to become an issue in the future as non-point sources of pollution come under increasing regulation. It is recommended that \$150,000 be appropriated each year for the next few years to implement Activities 1 through 3. This amount could be reduced in later years to only cover the ongoing costs to support Data Collection, Flood Insurance Program Assistance, and Storm Water Quality Management activities. The staff resources to manage all of the recommended activities is estimated to be about 3 person-months per year.

Table 5-2. Flood Control Activities

Activity	Estimated Costs, <sup>(a)</sup> thousand dollars
1. Hydrologic Data Collection Program <sup>(b)</sup>	202
2. County Hydrology Manual Update	59
3. Ulatis Flood Control Project Model Revisions	67
4. National Flood Insurance Program Assistance	5
5. Storm Water Quality Management	—

(a) Costs assume the work would be completed by a consultant managed by SCWA staff.

(b) Costs include SCWA ongoing development of the Automated Data Acquisition and Early Warning System

## FLOOD CONTROL/DRAINAGE COORDINATION

The third category of SCWA participation is coordination with other agencies and cities. The Flood Control Task Force Working Groups have provided input which indicates there is a lack of coordination of flood control efforts. The recommended increase in dialogue between agencies outlined in Chapter 4 will require additional SCWA staff time, and staff time of other participating agencies. It is estimated this increase in coordination will require an additional person-month of staff time. This excludes coordination efforts which are integral to the planning and activities categories previously discussed.

## SUMMARY OF ESTIMATED MASTER PLAN RESOURCE REQUIREMENTS

A summary of the total SCWA staff and financial resource requirements to meet the level of participation described above is provided in Table 5-3. There is adequate staffing to perform the recommended program in this plan – no new staffing is needed for the recommended program.

**Table 5-3. Summary of Estimated Master Plan Implementation Resource Requirements<sup>(a)</sup>**

	Annual costs, thousand dollars	Annual Staff Time, person-months/year
Planning		
Grants	50-100	2-3
Watershed Management Plans	200 <sup>(b)</sup>	5-6
Activities	150	3
Coordination		1
Total	400-450	11-13

<sup>(a)</sup> Estimated level of effort each year for next three-year period.

<sup>(b)</sup> This could provide direct funding of local WMPs, and in-kind services match for COE WMPs.