

1. Introduction

<< Note to Reviewer: Welcome to the Working Draft of the Mid & Upper Sacramento River Regional Flood Management Plan (MUSR RFMP). Over the last 9 months, stakeholders within the Mid & Upper Sacramento River Regions have been meeting to discuss the current state of flood management within the Regions. These discussions have been open and forthright, and have highlighted differences in opinion between stakeholders in their visions for the Regions' flood management future. Key themes/issues which have emerged during development of this Working Draft include:

- To have any hope for implementation, system-wide flood management planning must recognize, respect, and represent local interests;
- The current Operations and Maintenance paradigm is not sustainable and must change;
- The tension between desires to improve the natural environment, and the need to maintain and improve the flood protection system, has a high potential to delay implementation of needed improvements to the system within the Regions. Searching for 'common ground' will need to be a high priority in the next phase of the RFMP development process.

The purpose of this Working Draft is to further facilitate the discussion on these and other issues as we move towards a final draft of the MUSR RFMP in fall 2014. It is important to note that this a working draft, and substantial changes are likely as work continues and as additional input and information is received in the coming months. We anticipate that the Focus Area Workgroups will be key in helping to review the Working Draft and in shaping the final RFMP.

Our goal is to begin working on the final draft of the MUSR RFPM beginning July 2014. Therefore, we would like to receive comments and suggestions on the Working Draft by June 30, 2014. Questions or written comments can be sent to:

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1.1. Background

The Mid & Upper Sacramento River Regional Flood Management Plan (MUSR RFPM) is a locally-driven assessment of regional flood management issues within the Mid Sacramento Region and the Upper Sacramento River Region (collectively referred to as the Planning Area or Regions). The Mid and Upper Sacramento River regions comprises portions of Butte, Colusa, Glenn, Lake, Sutter, Tehama, and Yolo counties (see Figure 1-1), and contain a diverse set of stakeholder groups in urban cities, small communities, and rural areas. The MUSR RFMP is a follow up to the 2012 Central Valley Flood Protection Plan (CVFPP) and will be used to inform

1 the 2017 update of the CVFPP. The MUSR RFMP will outline the long-term vision for flood
2 management in the Regions and will include, among other things, a description of the current
3 flood management conditions, opportunities for improving flood management within the
4 Planning Area, needed projects based upon priority, and a preliminary financing plan.

5 The Mid Sacramento River and Upper Sacramento River Regions joined together in this
6 planning effort because the Regions share common interests and goals, along with
7 interconnected flood control facilities and systems. The MUSR RFMP was developed by
8 participants from the Regions' counties, cities, local levee maintaining agencies (LMAs), water
9 agencies, emergency response agencies, citizen groups, tribes, resource agencies,
10 nongovernmental organizations (NGOs), and other interested stakeholders. The MUSR RFMP
11 effort was funded by a Proposition 1E grant through the California Department of Water
12 Resource (DWR).

13 **1.2. MUSR RFMP Purpose, Goals, and Objectives**

14 The MUSR RFMP is intended to provide the framework for the Mid and Upper Sacramento
15 River Regions' vision for managing flood risk, and was developed using local experience,
16 knowledge and expertise. It provides a reconnaissance-level assessment of regional flood risks,
17 and presents a prioritized list of short-term and long-term flood risk reduction projects for the
18 Regions. The Regions intend for the MUSR RFMP to be used by DWR to inform the
19 Sacramento River Basin-Wide Feasibility Study (BWFS), Central Valley Flood System
20 Conservation Strategy (Conservation Strategy), and 2017 update to the CVFPP.

21 The goals and objectives of the MUSR RFMP include:

- 22 • Assemble, coordinate, inform, and direct the regional participants for the organization,
23 preparation, and completion of the MUSR RFMP using available financial and technical
24 resources.
- 25 • Define opportunities and problems concerning flood management and protection issues
26 within the Regions to be addressed in the MUSR RFMP.
- 27 • Cooperatively and collaboratively determine appropriate regional flood
28 management/protection actions and projects that meet priority benefits and needs, and
29 provide public safety and reduced flood risks for the Regions.
- 30 • Identify funding needs and resources in order to implement flood management/protection
31 actions and projects included in the MUSR.
- 32 • Using local expertise and knowledge create a thoughtful flood management plan for the
33 future in a directed, consistent, and sustainable manner to allow better economic and
34 social certainty for the Regions and the State.
- 35 • Protect the agricultural, environmental, and urban infrastructure and resources of the
36 Regions in an integrated and practical way that improves and benefits all sectors in the
37 future.
- 38 • Assist the State in moving forward in its path of continuing to develop and implement a
39 workable and progressive CVFPP that is in the best interest of the Regions and State.

1.3. Relationship to Other Planning Efforts

1.3.1. 2012 Central Valley Flood Protection Plan

The Central Valley Flood Protection Act of 2008 mandated that DWR prepare the 2012 CVFPP to guide the State's participation in managing flood risk along the Sacramento River and San Joaquin River systems. The CVFPP proposes a State Systemwide Investment Approach (SSIA) for sustainable, integrated flood management in areas currently protected by facilities of the State Plan of Flood Control (SPFC). The primary goal of the 2012 CVFPP is to improve flood risk management by reducing the chance of flooding, and damages once flooding occurs, and improve public safety, preparedness, and emergency response. Supporting goals include improving operations and maintenance, promoting ecosystem functions, improving institutional support, and promoting multi-benefit projects.

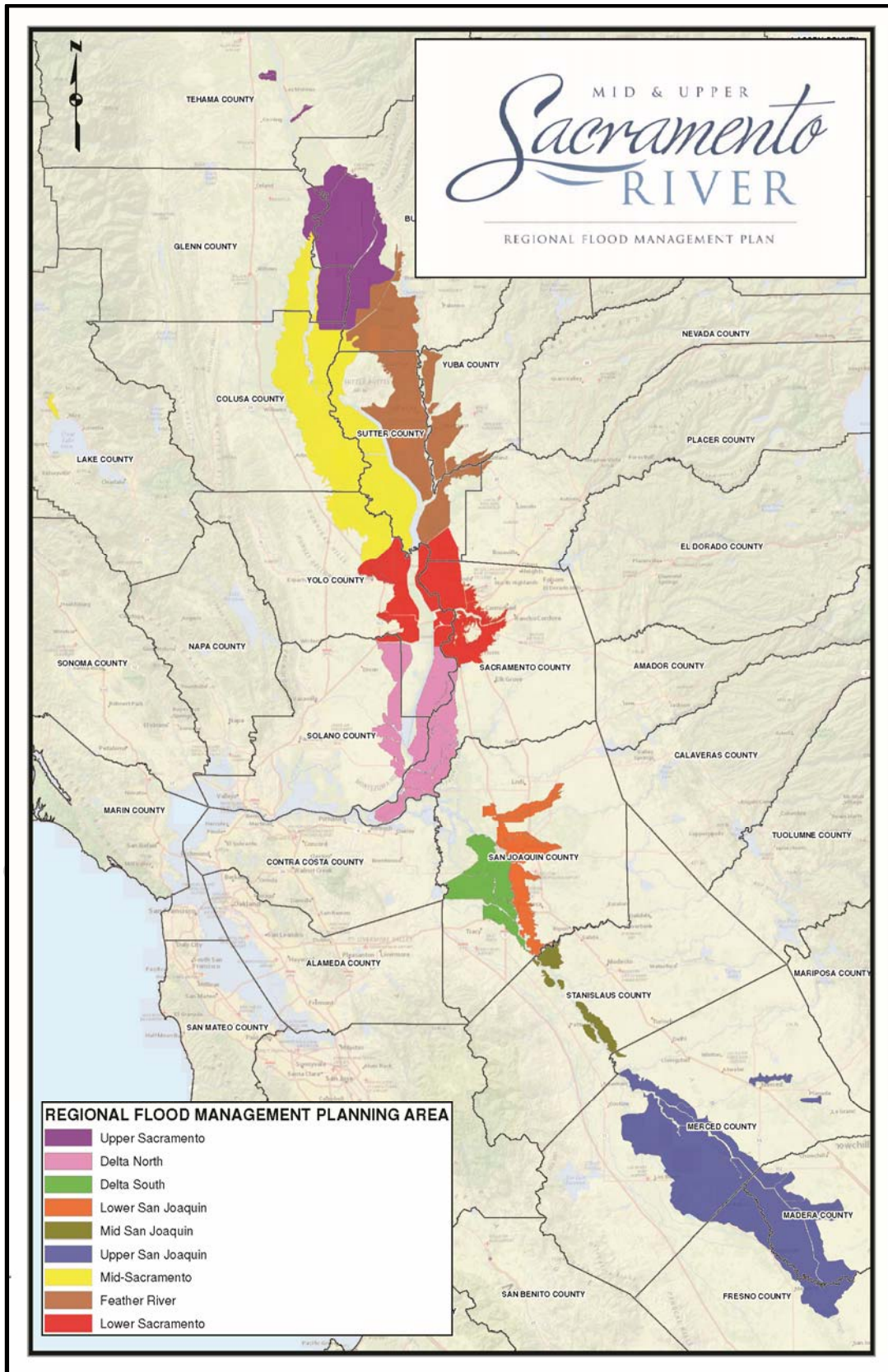
The initial CVFPP was adopted by the Central Valley Flood Protection Board (CVFPB) in June 2012 and will be updated every five years, with each update providing support for subsequent policy, program, and project implementation. The CVFPP did not incorporate the level of detail needed to delineate refined systemwide improvement alternatives, nor did it include a detailed discussion of local flood risk reduction priorities. Instead, it provides a broad vision to help direct regional- and state-level financing plans to guide investments which may be in the range of \$14 billion to \$17 billion over the next 20 to 25 years.

1.3.2. Regional Flood Management Plans

At the urging of the CVFPB, DWR launched the Regional Flood Management Planning effort to assist local agencies in developing long-term regional flood management plans that address local needs, articulate local and regional flood management priorities, and establish the common vision of regional partners. The six planning regions (originally nine, but some combined) are the Upper/Mid-Sacramento River, Feather River, Lower Sacramento River/Delta North, Lower San Joaquin River/Delta South, Mid-San Joaquin River, and Upper San Joaquin River (see Figure 1-1).

Each of the six planning regions formed a working group led by a local agency and consisting of representatives from flood management agencies, land use agencies, flood emergency responders, permitting agencies, and agricultural and environmental interests.

Figure 1-1. Regional Flood Management Planning Areas



1 The MUSR RFMP was prepared in direct coordination with both the Lower Sacramento/Delta
2 North and Feather River Regions during this RFMP planning process. In particular, the Regions
3 collaborated extensively in regard to operation and maintenance (O&M) issues, and on issues
4 related to the Cherokee Canal, Butte Sink, Sutter Bypass, and Yolo Bypass.

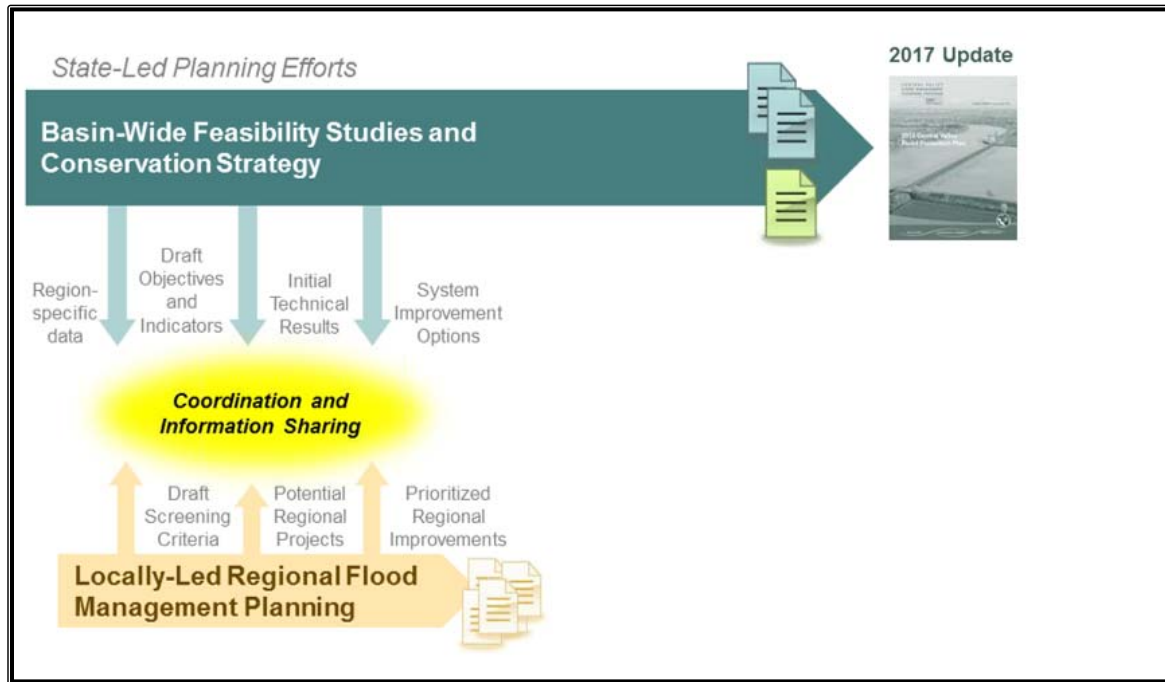
5 **1.3.3. DWR Basin-Wide Feasibility Studies**

6 DWR intends to refine the SSIA concept proposed in the 2012 CVFPP through the development
7 of Basin-Wide Feasibility Studies (BWFS) of the Sacramento and San Joaquin River Basins.
8 Flood management actions that will be considered in the BWFS include system improvements
9 such as weirs and bypasses, regional flood risk reduction actions (especially those that
10 incorporate other benefits such as recreation or water supply), and implementation of a habitat
11 conservation strategy which integrates environmental enhancement and sustainability objectives
12 into flood management projects and activities.

13 While the BWFS will focus on refining the SSIA from the 2012 CVFPP, they will also consider
14 and may include projects and actions recommended by the RFMPs that are determined to be
15 consistent with the CVFPP. The improvements will be evaluated based on the ability to meet
16 basin-wide objectives, such as resiliency, flexibility, and sustainability of the flood management
17 system along the Sacramento and San Joaquin rivers. DWR has indicated that it intends to fully
18 coordinate the activities of the BWFSs and RFMPs in a way that the two planning processes
19 inform each other and are properly integrated. This integration will facilitate the further
20 consideration of recommended regional improvements in the BWFS.

21 Figure 1-2 provides a graphical description of the relationship between the parallel planning
22 efforts.

1 **Figure 1-2. Relationship between the State-led BWFS and the locally-led RFMP**



2

3 **1.3.4. Northern Sacramento Valley**
4 ***Integrated Regional Water Management Plan***

5 The MUSR RFMP was used to help develop the flood control component of the 2014 Northern
6 Sacramento Valley Integrated Regional Water Management Plan (NSVIRWMP). The
7 NSVIRWMP is a collaborative effort to enhance coordination of the water resources management
8 in the region. NSVIRWMP involves multiple agencies, stakeholders, tribes, individuals, and
9 groups to address water-related issues and offer solutions that can provide multiple benefits to
10 the region. The NSVIRWMP includes representatives of the six counties working in partnership
11 with community stakeholders, tribes, and the public to identify the water-related needs of the
12 region.

13 **1.4. MUSR RFMP Development Process**

14 The MUSR RFMP Planning Area consists of portions of seven counties: Butte, Colusa, Glenn,
15 Lake, Sutter, Tehama, and Yolo; the cities of Chico and Colusa; the smaller communities of
16 Gerber, Hamilton City, Nord, Durham, Dayton, Nelson, Richvale, Glenn, Ord Bend, Butte City,
17 Princeton, Meridian, Grimes, Robbins, and Afton; Levee Districts 1, 2, and 3; the Sacramento
18 West Side Levee District; and eight Reclamation Districts (RDs): Lake County Watershed
19 Protection District, Tehama County Flood Control & Water Conservation District, the Colusa
20 Basin Drainage District, the Colusa Rancheria, and four DWR Maintenance Areas. An overview
21 of the area defined as the Mid and Upper Sacramento Region is shown in Figure 1-3.

22 The approach for developing the MUSR RFMP consisted of first, conducting a series of
23 individual small group meetings with all of the participating local levee maintaining agencies,

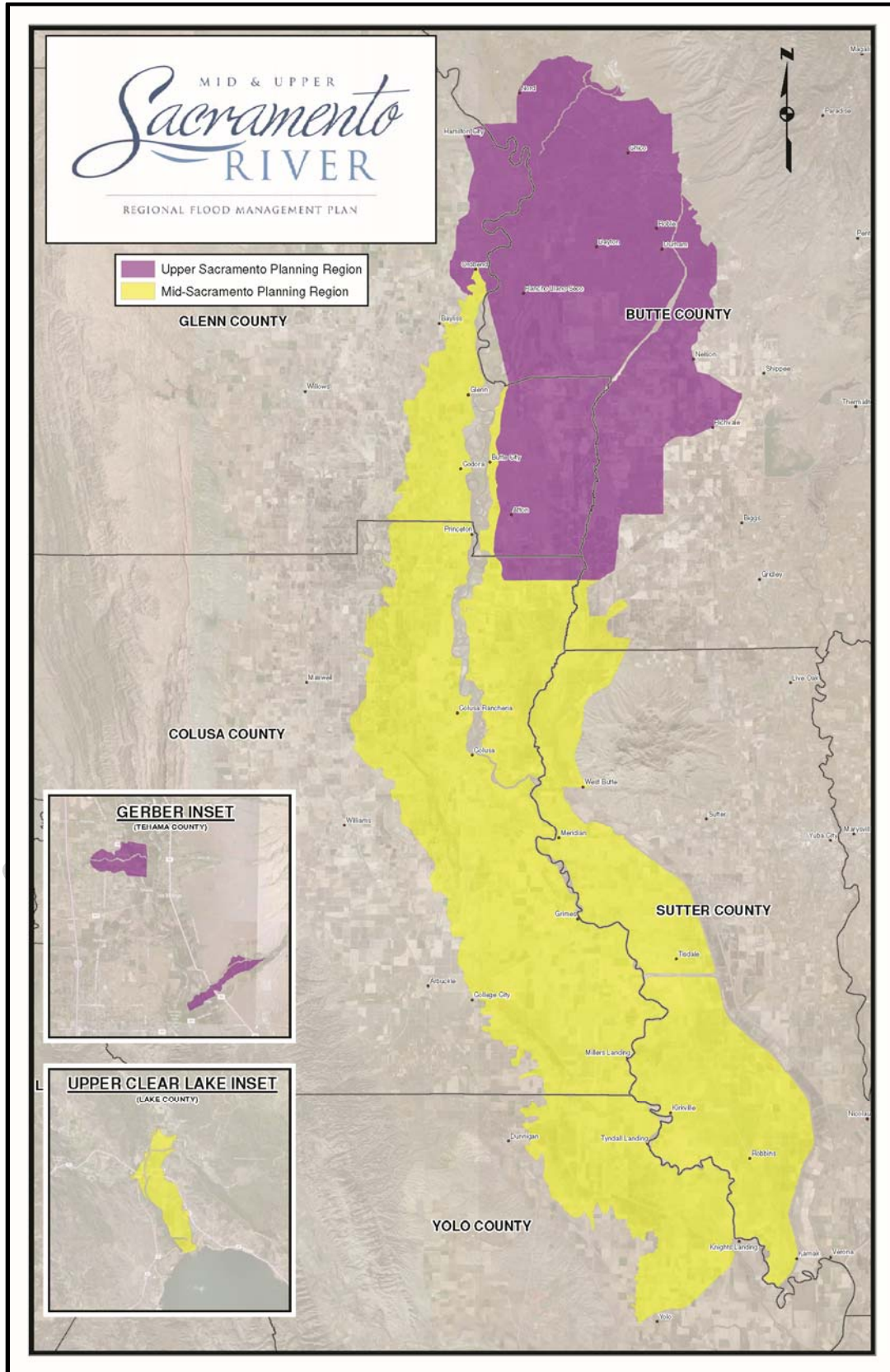
1 cities, counties, small communities, and interested stakeholders within the region. The series of
2 small group meetings were intended to reach all interested parties within the Planning Area. The
3 initial small group meetings presented the background, purpose, and objectives of the MUSR
4 RFMP and solicited input from attendees on their thoughts and ideas for flood management
5 within the region.

6 The small group meetings were followed up with a series of Focus Area Workgroup meetings.
7 Given the scale and complexity of the issues at hand, the Focus Area Workgroups were
8 established to make it easier for locals to have direct involvement in the parts of the MUSR
9 RFMP that they cared about the most. A group was established for each of the following Focus
10 Areas: Urban Areas, Operations & Maintenance, Emergency Response, Rural Areas, Small
11 Communities, System Improvements, Multi-Benefit, and Finance.

12 A MUSR RFMP webpage was created to provide information on meetings and study progress to
13 all stakeholders (<http://musacrfmp.com/>), and a Project Outreach Coordinator with a telephone
14 hotline (530-809-9317) was established to provide a single point of contact for all parties. Any
15 and all interested parties within the Regions were encouraged to be a part of the MUSR RFMP
16 planning effort. As of early 2014, the stakeholder database included about 450 members.

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Figure 1-3. Mid and Upper Sacramento Planning Region



1.5. Organization of the Planning Team

Reclamation District 108 was the grant recipient and lead agency for preparing the MUSR RFMP. RD 108 retained Peterson Brustad, Inc. as the lead consultant to assist in the research, planning, and preparation of the RFMP. A Steering Committee was formed to help guide and assist the MUSR RFMP team with plan development. The Steering Committee consisted of representatives from the participating counties, cities, reclamation districts, levee districts, and other levee maintaining agencies. Additionally, all tribal groups, NGOs, agricultural interests, and landowners within the MUSR RFMP Planning Area were encouraged to be involved.

In addition to the Steering Committee, two smaller Administration Committees (one for the Mid Sacramento and one for the Upper Sacramento region) were formed in order to guide the day-to-day activities of the planning team. The Administration Committee members were elected by the Steering Committee in November 2012.

1.6. Organization of this Report

This report is organized to reflect the chronological sequence of the planning process. Beginning with a description of background information and the regional setting, the report describes the identified problems and opportunities. With this foundation, potential actions that may address these problems are identified. Generally, the chapters are organized to correspond with the Focus Area Workgroups, elaborating on the specific challenges and potential solutions for each topic. A summary of all of the potential flood risk management improvements is then presented, followed by an assessment of potential benefits, costs, and impacts. Based on all of these elements, a locally-determined set of priorities is formulated and documented, and the opportunities for potential financing alternatives are investigated and described.

1.7. Sources of Existing Information

The MUSR RFMP relies primarily on existing sources of information provided by local agencies, property owners, interested individuals, NGOs, as well as state and federal agencies. The major sources used to inform the RFMP include:

- Local studies and data;
- Stakeholder input;
- Central Valley Flood Protection Plan (2012), including attachments, and CVFPB Resolution 2012-2025;
- Flood Control System Status Report (2010);
- State Plan of Flood Control Descriptive Document (2010);
- Upper/Mid Sacramento River Region Flood Atlas (May 2013);
- California's Flood Future: Recommendations for Managing the State's Flood Risk (2013);
- DWR LMA Annual Reports (2013);
- DWR Non-Urban Levee Evaluations (ongoing);
- DWR Urban Levee Evaluations (ongoing);

- 1 • DWR Central Valley Floodplain Evaluation and Delineation Hydraulic Models
- 2 (ongoing); and
- 3 • DWR Flood System Repair Program (ongoing).

4 The MUSR RFMP also incorporated information from city and county general plans, as well as
5 institutional knowledge of the flood management facilities system from city, county, RD, LMA,
6 and stakeholders involved in the daily O&M of their respective facilities.

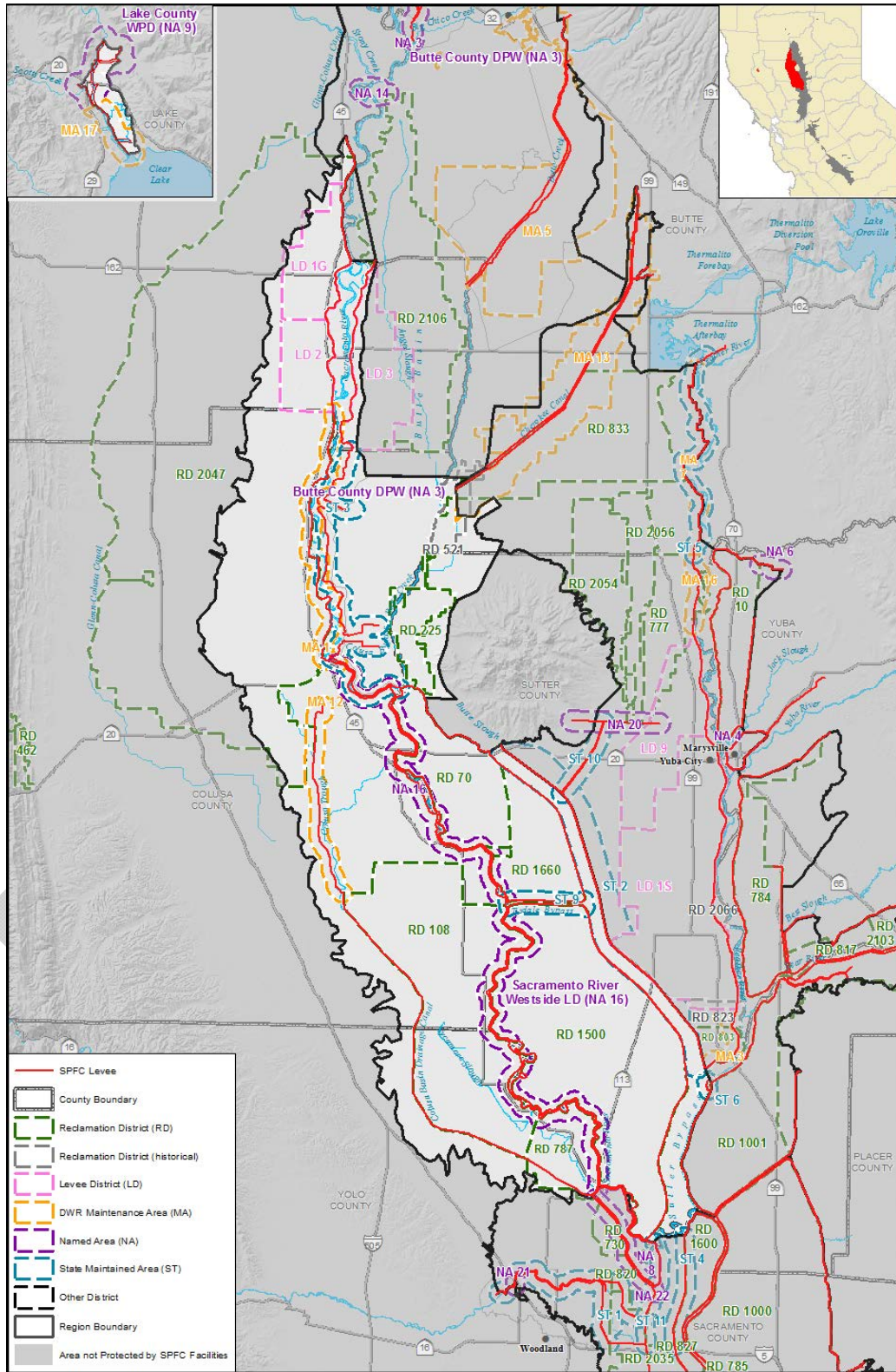
7 The MUSR RFMP used best available information and, therefore, data sets from existing sources
8 may not fall entirely within the Planning Area boundaries. The information in the MUSR RFMP
9 was compiled from a number of documents, each with differing levels of detail, completeness,
10 and study area boundaries.

11 **1.8. Regional Partners**

12 Historically, major flood management initiatives in California have been undertaken by local,
13 state, and federal agencies in an evolving cooperative relationship. Beginning in the 1850s,
14 levee improvements were initiated as entirely local undertakings, with sporadic efforts to provide
15 state coordination and oversight. State oversight of flood control efforts in the Sacramento
16 Valley began in 1911, with the creation of the Central Valley Flood Protection Board (formerly
17 the State Reclamation Board). Federal participation in California flood management, which was
18 first authorized in the Caminetti Act of 1893, was firmly established with authorization of the
19 Sacramento River Flood Control Project in 1917. From 1917 to 2006, the United States Army
20 Corps of Engineers (USACE) has played a lead role in planning, authorizing, financing,
21 constructing, and inspecting flood system improvements in the Sacramento Valley, incorporating
22 and improving upon the levee system originally constructed by local agencies.

23 Since 2006, DWR and local agencies have played more prominent roles, providing leadership on
24 major levee improvement projects in the Central Valley. The roles of the agencies involved can
25 be expected to continue to shift in response to political and policy changes, funding availability,
26 interest, and leadership. The roles of the key local, state, and federal agencies involved in
27 providing and permitting flood management projects and programs are summarized below.
28 Other organizations that were involved in the development of this MUSR RFMP are also listed.

Figure 1-5. Mid Sacramento River Region LMAs



1 **1.8.1. Local Public Agencies**

2 Local levee districts, reclamation districts, and state maintenance areas, known collectively as
 3 LMAs, regularly patrol, maintain, and repair the levees within their jurisdictions as well as fight
 4 floods when they occur. The LMAs have given assurances to the CVFPB that they will operate
 5 and maintain the levees that are a part of the SPFC (Project levees) (see Table 1-1, Figure 1-4
 6 and Figure 1-5) in perpetuity in accordance with criteria established by USACE. The LMAs
 7 were the primary local partners in this RFMP process.

8 **Table 1-1. Local Maintaining Agencies for the SPFC Levees in the MUSR Regions**

Local Maintaining Agency	County	Stream	Total Miles of Levee
Butte County Public Works	Butte	Mud Creek, Sycamore Creek, Dry Creek, Sheep Hollow Creek, Big Chico Creek Diversion Channel	24.7
Tehama County Flood Control & Water Conservation District	Tehama	Deer Creek, Elder Creek	13.6
Levee District 1	Glenn	Sacramento River	12.5
Levee District 2	Glenn	Sacramento River	4.9
Levee District 3	Glenn	Sacramento River	12.2
Reclamation District 70	Sutter	Sacramento River, Sutter Bypass	23.6
Reclamation District 108	Colusa	Colusa Basin Drain	20.9
Reclamation District 787	Yolo	Colusa Basin Drain	4.4
Reclamation District 1500	Sutter	Sacramento River, Sutter Bypass	54.4
Reclamation District 1660	Sutter	Sacramento River, Sutter Bypass	12.1
Lake County Watershed Protection District	Lake	Middle Creek, Scott's Creek, Alley Creek, Poge Creek, Clover Creek	10.5
Sacramento River Westside Levee District	Colusa	Sacramento River	50.2
DWR Sutter Yard Maintenance Area 1	Colusa	Sacramento River	17.1
DWR Sutter Yard Maintenance Area 5	Butte	Butte Creek, Little Chico Creek Diversion	33.3
DWR Sutter Yard Maintenance Area 12	Colusa	Colusa Basin Drain	11.3
DWR Sutter Yard Maintenance Area 17	Lake	Middle Creek	3.9
DWR Sutter Yard Statutory Area 3	Colusa	Sacramento River	27.2
DWR Sutter Yard Statutory Area 9	Sutter	Tisdale Bypass	8.9

9 In addition to the LMAs listed previously, the following list shows the other local public
 10 agencies that were involved in this Mid and Upper Sacramento River RFMP planning process:

- 11 • Glenn County Planning and Public Works
- 12 • Colusa County Department of Public Works
- 13 • City of Colusa
- 14 • City of Chico
- 15 • Colusa Basin Drainage District
- 16 • Rock Creek Reclamation District
- 17 • Reclamation District 2140
- 18 • Reclamation District 2047

- 1 • Western Canal Water District
- 2 • TC Canal Authority
- 3 • Glenn-Colusa Irrigation District
- 4 • Princeton-Codora-Glenn Irrigation District
- 5 • Gerber/Las Flores CSD
- 6 • Richvale Irrigation District
- 7 • Richvale Sanitary District
- 8 • Hamilton City F.D.
- 9 • Ord Bend F.D.
- 10 • Robbins F.D.
- 11 • Sacramento River Fire Protection District
- 12 • Glenn-Colusa F.D.
- 13 • Butte County OEM
- 14 • Sutter County OEM
- 15 • Tehama County OES
- 16 • Yolo County OES
- 17 • Colusa County OEM
- 18 • Glenn County Sheriff's Department

19 **1.8.2. State Agencies**

20 Central Valley Flood Protection Board

21 The CVFPB, with regulatory authority over the SPFC levees, has given assurances to USACE
22 that the federally-authorized Project levees will be operated and maintained in accordance with
23 those criteria. The CVFPB has the authority to serve as the non-federal sponsor for capital
24 improvement projects for levees in the Regions, regulates encroachments, and works to assure
25 that the various components function as a system.

26 California Department of Water Resources

27 DWR, primarily acting through the Division of Flood Management, is responsible for State-level
28 flood management in the Planning Area, including cooperating with USACE in project planning,
29 design, and funding; cooperating with the National Ocean and Atmospheric Administration
30 (NOAA) in flood and water supply forecasting; operating the Flood Operations Center;
31 providing flood fight assistance for local agencies; and maintaining portions of the flood
32 management system.

33 DWR's levee maintenance responsibilities include portions of the system designated for State
34 maintenance in the California Water Code (CWC §8361(f)) and operating Maintenance Areas
35 (MAs) when local agencies cannot or choose not to meet the maintenance obligations established
36 under the assurances given to the CVFPB and USACE (CWC §12878 et.seq.). Under these
37 authorities, DWR will assume responsibility for levee maintenance.

1 California Office of Emergency Services

2 The California Office of Emergency Services (Cal OES) has overall State emergency response
3 management authority, which among other things, includes assuring that State and local agencies
4 operate in accordance with the Standardized Emergency Management System (SEMS).

5 California Department of Fish and Wildlife

6 The California Department of Fish and Wildlife (CDFW) administers State laws and regulations
7 regarding the protection of fish and wildlife resources, and as such, exerts permitting authority
8 over flood control project construction, operation, and maintenance activities, as well as
9 managing State wildlife areas in the region.

10 State Water Resources Control Board and the Regional Water Quality Control Board, Central
11 Valley Region

12 The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control
13 Board, Central Valley Region (RWQCB), administer State water rights and water quality laws
14 and regulations. The SWRCB, given its authority over water rights, including stream diversions,
15 may exert regulatory authority over flood control or environmental restoration projects that result
16 in new diversions from existing channels. The RWQCB requires that construction projects, such
17 as levee improvement projects, avoid injurious discharges from worksites to streams by
18 preparing and adhering to Stormwater Management Plans and following Best Management
19 Practices for chemicals, diesel fuel, drilling fluid, and other typical construction fluids. The
20 RWQCB also works closely with USACE when it issues Section 404 permits, which must
21 include a certification by the RWQCB that water quality will not be impaired (Section 401
22 permit).

23 California Department of Conservation

24 The California Department of Conservation (DOC) is responsible for administering the
25 California Surface Mining and Reclamation Act (SMARA) of 1975. It assures that local
26 governments, such as cities and counties, adopt and administer ordinances compliant with the
27 law. SMARA is an important consideration for most flood control projects, as it applies to any
28 projects that disturb more than one acre of land or move more than 1,000 cubic yards of material.
29 SMARA compliance involves formulating projects that do not result in injurious discharges from
30 the disturbed area during the mining operation, followed by a reclamation plan which restores
31 the mined land to beneficial use (DOC, 2013).

32 DOC also administers the Williamson Act, enacted in 1965, designed to help preserve
33 agricultural land through property tax incentives and long-term contracts. It was enhanced in
34 1998 with the addition of Farmland Security Zone (FSZ) provisions, which offers additional
35 incentives to extend the contract period from the normal 10-year period to 20 years. Butte,
36 Colusa, Sutter, and Tehama Counties participate in the Williamson Act program. These counties
37 also participate in the FSZ provisions as well.

38 The DOC also administers various grant programs for the acquisition of agricultural and open
39 space preservation (DOC, 2013). Such programs may work synergistically with non-structural
40 flood management projects, which may improve flood system capacity, reduce long-term risks to
41 life and property, and improve resiliency through actions such as agricultural conservation

1 easements, open space easements, levee setbacks and floodplain restoration, where locally
2 supported and feasible.

3 **1.8.3. Federal Agencies**

4 U.S. Army Corps of Engineers

5 At the federal level, USACE is primarily responsible for planning, designing, and constructing
6 federally-authorized flood management facilities, including dams, levees, and other structures. It
7 also develops the operational rules for federally-funded flood control reservoirs, which include
8 most of the major reservoirs on Central Valley streams. Following the Hurricane Katrina Gulf
9 Coast disaster of 2005, USACE has implemented the Levee Safety Program (LSP), promulgated
10 strict vegetation management guidelines, and strengthened its national levee inspection program.

11 National Weather Service

12 The National Weather Service (NWS), a part of NOAA, operates centers throughout the United
13 States that monitor and forecast climate, weather, severe storms, and runoff. In California, the
14 NWS weather forecasting centers are supplemented by the California Nevada River Forecast
15 Center (CNRFC) which cooperates with DWR to issue flood and water supply forecasts
16 (CNRFC, 2013). These forecasts are critically important to the Regions because under winter
17 storm conditions, flow in the rivers and local streams can increase rapidly, causing extreme peril
18 for residents and property. Accurate and timely flood forecasts are an important component of
19 the Regions' flood risk management system.

20 NOAA Fisheries

21 NOAA Fisheries is responsible for the protection of anadromous fisheries, including salmon and
22 steelhead, which migrate through and spawn in the various channels within the MUSR Regions.
23 NOAA Fisheries plays an important role in the flood project planning process, providing
24 guidance on ways to design and operate flood control works to minimize impacts and enhance
25 fisheries habitat. USACE and other project proponents must consult with NOAA Fisheries in all
26 phases of federal flood management project planning, design, and construction that have the
27 potential for impacting species of concern. In administering various federal statutes and
28 regulations protecting migratory species of concern, NOAA Fisheries may also impose
29 conditions on the operation of multi-purpose dams and reservoirs with federal participation,
30 including the major reservoirs protecting the region (NOAA Fisheries, 2013).

31 U.S. Fish and Wildlife Service

32 The United States Fish and Wildlife Service (USFWS) plays a similar role to that of NOAA
33 Fisheries, with a focus on terrestrial, avian, and resident fish species and their habitats. In the
34 Regions, some of the key species of concern are the Green Sturgeon (*Acipenser medirostris*),
35 Central Valley steelhead (*Oncorhynchus mykiss*), and Central Valley Chinook salmon
36 (*Oncorhynchus tshawytscha*). In the Mid-Sacramento Region, the Vernal Pool fairy shrimp
37 (*Brachinecta lynchi*) is also of concern. USFWS plays an important role in the flood project
38 planning process, providing guidance on ways to design and operate flood control works to
39 minimize impacts and enhance fish and wildlife habitats. USACE and other project proponents
40 must consult with USFWS in all phases of federal flood management project planning, design,
41 and construction (DWR, 2012, Atlas Map 19A and 19B).

1 The Federal Emergency Management Agency
2 The Federal Emergency Management Agency (FEMA) plays a multitude of flood management
3 roles, including managing the National Flood Insurance Program (NFIP), which includes
4 mapping of and classification of flood hazards in the Regions. FEMA administers the Disaster
5 Mitigation Act of 2000 (DMA 2000), which requires that local communities evaluate the natural
6 hazards within their boundaries and develop mitigation plans for those hazards in order to
7 maintain eligibility for its Pre-Disaster Mitigation (PDM) and Hazard Mitigation Grant Programs
8 (HMGP). FEMA also provides federal disaster recovery assistance in the event of federal
9 emergency declarations or disaster declarations. Federal emergency management efforts are
10 structured in accordance with the National Incident Management System (NIMS).

11 **1.8.4. *Other Organizations***

12 The following lists the other organizations and agencies that were involved in this Mid and
13 Upper Sacramento River RFMP planning process:

- 14 • Colusa Indian Community Council
- 15 • Sacramento River Conservation Area Forum
- 16 • Family Water Alliance
- 17 • County Resource Conservation Districts
- 18 • County Farm Bureaus
- 19 • M&T Ranch
- 20 • Llano Seco
- 21 • The Nature Conservancy
- 22 • River Partners
- 23 • American Rivers
- 24 • Westervelt Ecological Services