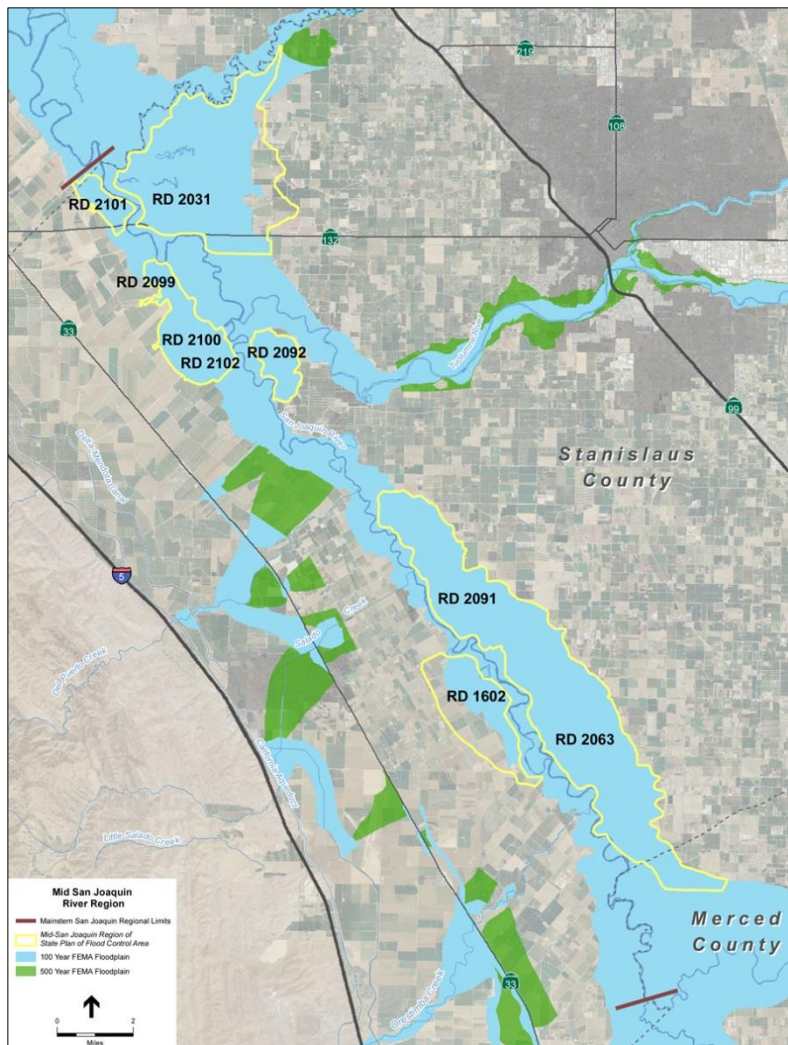


# Executive Summary

**Where is the Mid San Joaquin River?** The Regional Flood Management Plan (RFMP) for the Mid San Joaquin River (Mid SJR) Region planning area includes the floodplain corridor extending along the mainstem San Joaquin River from its confluence with the Merced River to its confluence with the Stanislaus River, the lower reaches of each of the major tributaries (the Merced, the Tuolumne, and the Stanislaus Rivers) that are protected by facilities within the State Plan of Flood Control (SPFC), and additional floodplain areas that have a nexus to the SPFC, as shown on Figure 1 below.

**What is the purpose?** The purpose of the RFMP is to develop and articulate a flood-safe vision for the Mid SJR Region that is both practical and ambitious in reshaping the status quo with regards to flood management.

**What are the goals of the RFMP?** The goals of the RFMP are consistent with the Central Valley Flood Protection Plan goals of improving flood risk management, improving operations and maintenance, promoting ecosystem functions, improving institutional support, and promoting multi-benefit projects.



**How was the RFMP developed?** Development of the RFMP process was co-led by Reclamation District (RD) 2092 and Stanislaus County. An 18-month public stakeholder engagement process was held from April 2013 to September 2014 where stakeholders were invited to participate in plan development. A total of eight public workshops were held to solicit input on all aspects of plan development. In addition, several briefings of local governments and special interest groups were made to inform various agencies and groups of the process and to gather input.

**Who was involved?** In addition to RD 2092 and Stanislaus County, a host of stakeholders from the region, including agricultural representatives and agricultural landowners, non-agricultural landowners and developers, public agencies, elected officials, environmental and conservation organizations, community groups (particularly those involved in emergency services), educational institutions, and representatives of low-income and/or at-risk populations, particularly those that may be impacted by flooding, contributed to the content of this plan through their participation.

**Who has flood management responsibilities in the planning area?** Federal and State agencies such as the Central Valley Flood Protection Board, US Army Corps of Engineers, State Department of Water Resources and US Bureau of Reclamation; irrigation districts that include Merced, Turlock and Modesto; nine Local Maintaining Agencies (Reclamation Districts 1602, 2031, 2063, 2091, 2092, 2099, 2100, 2102, and 2101), as shown on Figure 1, located on the previous page; Stanislaus, Merced, and San Joaquin Counties; and the Cities of Patterson, Newman, and Modesto.

**Why prepare a RFMP?** As shown in Figure 1 on the previous page, a large portion of the planning area contains 100- and 500-year floodplains that are concentrated along the San Joaquin River and its tributaries. Stanislaus County, together with the portions of the Mid SJR Region within Merced and San Joaquin Counties, is estimated to include nearly 78,000 acres within the 100-year floodplain. Most of these lands are in agricultural production, with some habitat land and open space areas. A total of 11,063 people reside within these floodplain lands, with 2,129 people residing within floodplain lands included in the Mid SJR Region's Local Maintaining Agencies (LMAs).

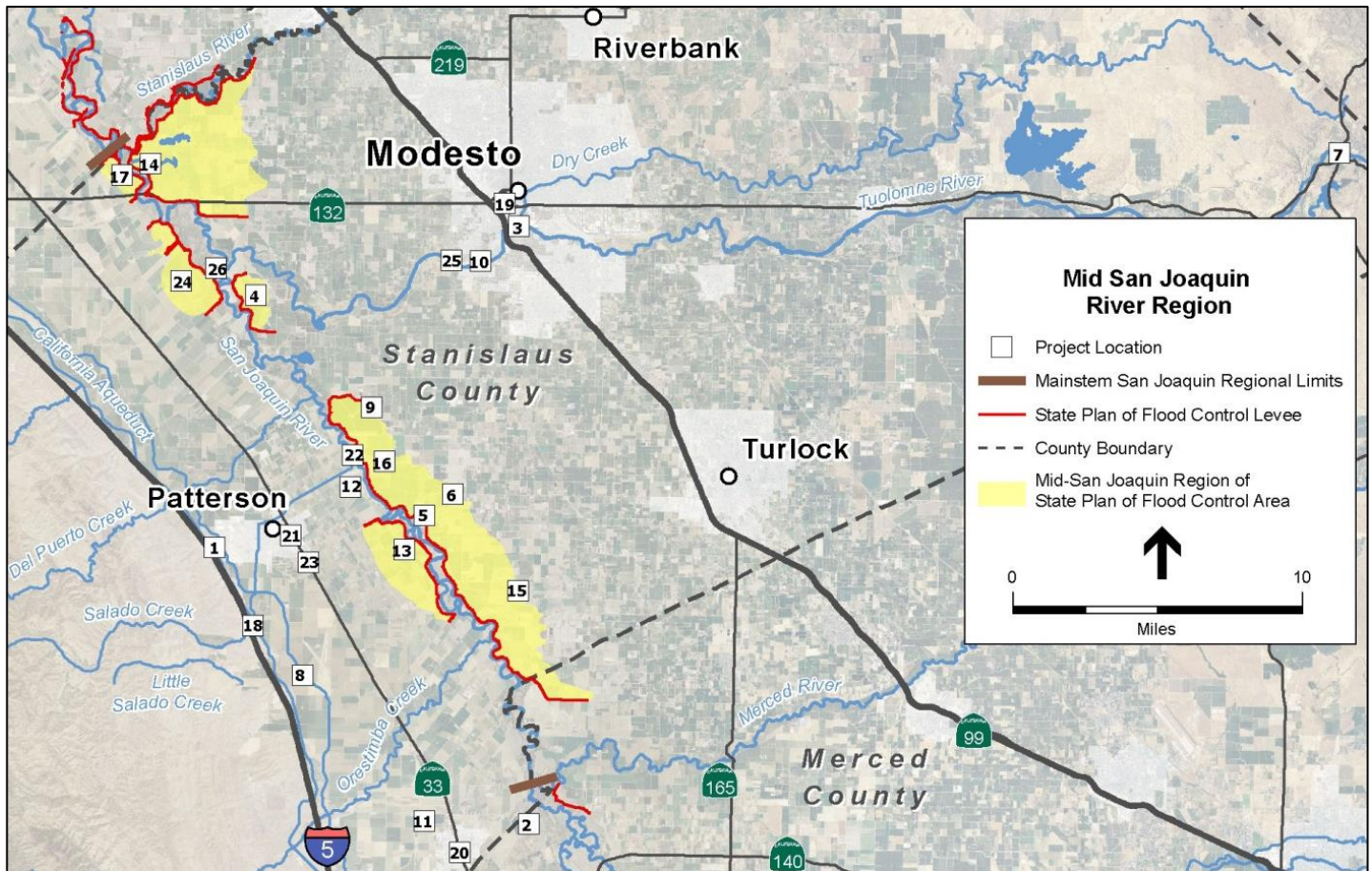
**What are the characteristics of the flood management system at present?** The current flood management system relies primarily on two key components: 1) a system of aging levees that are able

to convey a 25- to 50-year flood event and are subject to significant seepage hazards; and 2) an emergency response system that has strengths, but lacks integration amongst the various groups that respond to emergencies. Additionally, many of the LMAs lack Boards; most are struggling to meet operations and maintenance standards and are inactive under PL 84-99; and at least two do not appear to be financially sustainable. Four of the LMAs in the region are currently working towards having their levees removed from the SPFC as integrated ecosystem enhancement and flood management efforts.



**How will we make our region flood-safe?** Through the stakeholder process, 37 projects were identified as having the potential to reduce flood hazards and provide other benefits to the planning area. A range of project types were identified that include small dam removal, sediment load reduction, floodplain rehabilitation, a levee vegetation management program, studies to better understand flooding hazards, emergency response planning and training, flood education programs, compliance with Senate Bill 5 requirements, and storm drainage enhancements. The locations of projects with a specific project site are shown in Figure 2 located on the following page. These projects were evaluated, ranked, and categorized into three tiers (Highest Priority, High Priority, and Medium Priority) in accordance with criteria developed for this RFMP. Project locations are shown on the next page with location numbers following the project titles.





**Highest Priority**

- City of Newman/Bureau of Reclamation Flood Levee Rehabilitation (2)
- Consolidation of O&M (A)
- Dennett Dam Removal (3)
- Dry Creek Watershed Detention Reconnaissance Study (B)\*
- Emergency Response Plan – Local Planning and Training (D)
- Flood Risk Education (E)
- Modesto WWTP - Reduce Flood Risk (9) (10)
- Orestimba Creek Flood Risk Management Project (11)
- Regional Maintenance Technical Support (H)
- SB5 Compliance – City of Modesto (19)\*
- SB5 Compliance – City of Newman (20)\*
- SB5 Compliance – City of Patterson (21)\*
- Tuolumne River Flood Management Feasibility Study (J)\*
- Tuolumne River Regional Park – Carpenter Road/West Modesto Flood Management and Park Development (25)

**High Priority**

- Dos Rios Ranch Floodplain Expansion and Ecosystem Restoration Project and Hidden Valley Ranch Mitigation Project (4)
- Emergency Response Plan – Debris Management (C)
- Integrated Levee Vegetation Management – Flood Maintenance and Habitat (F)
- La Grange Floodplain Restoration and Spawning Gravel Augmentation (7)

- RD 2031 Resilience (14)
- RD 2063 Resilience (15)
- RD 2091 Resilience (16)
- Three Amigos (also known as the Non-structural Alternative at the San Joaquin River National Wildlife Refuge) (24)
- WSID Fish Screen and Change in Point of Diversion Project (26)
- Westside Creeks On-Farm Multi-Benefit Program (L)

**Medium Priority**

- Black Gulch Storm Drainage Study (1)\*
- Gomes Lake / Harding Drain Improvements (5)
- Hydraulic and Channel Migration Studies (6)\*
- Little Salado Creek (8)
- Patterson WWTP – Reduce Flood Risks (12)\*
- RD 1602 Resilience (13)
- RD 2101 Resilience (17)
- Reducing Sediment Loading into the San Joaquin River from Westside Agricultural Lands (G)
- Riverfront Park Project (22)
- Salado Creek Flood Management Project (18)
- Sediment Management Investigation (I)\*
- Storm Drainage Enhancements along Salado Creek (23)
- Tuolumne River Regional Park (K)

**Note:** Project locations are shown above with location numbers following the project titles. Projects that don't involve a specific site are represented by letters after the project title, and projects with a \* following the title indicates that it is primarily or entirely a study.

**Who are the key partners?** The agencies that would lead and support the development and implementation of the 37 projects that have been identified in the Mid SJR Region are the key partners for the RFMP. Key partners include Stanislaus County; the Cities of Modesto, Patterson, and Newman; all nine reclamation districts; River Partners; Tuolumne River Trust; Gomes Lake Joint Powers Authority; West Stanislaus RCD; San Joaquin River National Wildlife Refuge; Tuolumne River Regional Park Joint Powers Authority; Audubon California; and West Stanislaus Irrigation District.

**How will we pay for our regional improvements?** The total cost for the flood-safe vision is on the order of \$340 million. Local interests within the Mid SJR Region have limited capacity to raise funds to meet the local cost share. Even with investment from the State and federal funding, which is competitive, there is little hope to find the local cost share to fix the flood management system currently in place. Instead, the stakeholders will continue working to develop fundable flood improvement projects. The state has made a strong case for Multi-Benefit projects, and the Mid SJR Region has ample opportunities to identify and implement integrated ecosystem and flood management improvements.



**How would actions envisioned in the RFMP change our flood future (year 2040+)?** A few of the projects included in the RFMP were planned or underway even before the RFMP was drafted, but most were not. Without the RFMP, the level of flood literacy in the Mid SJR Planning Area would be dramatically lower. Flood risks would be greater, driven by population growth, floodplain development, and less investment in flood management, including emergency response. With the RFMP, significant flood management challenges will remain due to limited local funding capacity, but projects will be more successful in finding outside funding due to RFMP guidance on funding programs, drawing attention to regional issues and opportunities, and highlighting of key flood management gaps and opportunities for high-return, modest investment projects.