

Sacramento River Flood Control Project (SRFCP)

Authorized by Congress in 1917, the major project for flood control on the Sacramento River and its tributaries was sponsored by the CA Reclamation Board and was the first federal flood control project constructed outside the Mississippi River Valley.

Under natural conditions the flood plain of the Sacramento River varied from 2 to 30 miles wide, extended about 150 miles along the river and annually covered over 1 million acres. Low, discontinuous levees were built by individual landowners from the 1840s to the 1890s. Those levees concentrated flood flows and contributed to problems that were made worse by the hydraulic mining that occurred shortly after the California Gold Rush in 1848. With the authorization of the SRFCP, the Army Corps and State began managing the project as a “regional system,” constructing improvements to approximately 1100 miles of levees, creating bypasses and floodways and laying the foundation for the series of reservoirs that would later provide additional flood protection and water supply to the growing west.

Although the structures have seen extensive improvement and upgrades over the years, the underlying foundation of most of the levees and channels pre-date any State or Army Corps involvement and still retain their original materials which include dredged riverbed sands, soil and organic matter. At the time of the project authorization in 1917, the area being protected by the levees were primarily agriculture with minimal improved infrastructure such as railroads and highways.

Today, over two million people, 800,000 acres, 2/3 of the states drinking water and over \$80 billion are being protected and transported by the 1100 miles of levees and structures on the Sacramento River Flood Control Project. With the flood events of 1986, 1995, 1997, updated hydrology and levee analysis, the risk of flooding from the system ranges from 1 in 25 (25-year) to over 1 in 100 (100-year) each year, depending on the location. (Note: the so called 100-year flood has a 1 percent chance of occurring in any given year, which equates to a 26 percent likelihood of flooding over a 30 year mortgage.) Few of the levees have been actually “certified” as meeting FEMA standards, and many of the flood plain maps are out of date, presenting communities with an unclear understanding of their true flood threat. The joint Army Corps/State of CA post 1997 flood report identified many of these issues and developed a greater understanding of the increasing flood threat to the region.

Sacramento River Flood Control Project (SRFCP) Fast Facts

- **Project authorized by Congress in 1917**
- **State of California is the local sponsor**
- **Contains approximately 1100 miles of levees, weirs and bypass channels**
- **Most levees were originally constructed by private landowners**
- **Levees originally only protected agriculture land**
- **State of CA has ownership and maintenance responsibility**
- **2,000,000 people, 800,000 acres and \$80 billion worth of property, including the state capitol is at risk**
- **Flood risk ranges from 25 to 100-year (1 in 25 to 1 in 100 odds of flooding)**
- **2/3 of the states drinking water is transported by the system**
- **FEMA flood plain maps are out of date**
- **Maintenance is not up to federal standards in many areas**



The levees, channels and related flood control structures are all owned, operated and maintained by the State of California, who has in turn partnered with local levee and reclamation districts at the county level to perform most routine maintenance. However, most of the levee districts are significantly under-funded and unable to maintain the system to federal standards. (A 2/3 majority vote is needed to pass local assessments for most maintenance functions.)

The federal government has no ownership or maintenance responsibilities on the system, but can participate in improvement projects designed to ensure the project performs and can pass “design profile” flood flows. The Corps also retains a unique authority to repair water-side erosion on the levee banks, when funds are available. That authority, Sacramento River Bank Protection Project, receives a limited amount of funding that is only able to address some of the more critical sites.

When the Sacramento River Flood Control Project levees are combined with the San Joaquin River system the central valley of California has over 1650 miles of levees that were built for the protection of agriculture land that is now heavily urbanized and densely populated in several major metropolitan areas. If the region were to experience another significant rainfall event like 1986 or 1997 multiple levee failures would be expected causing significant flooding, damages and potentially interrupting water delivery to Southern California.

Currently the Corps has some on-going levee repair work as part of the Sacramento River Bank Protection Project and the American River Watershed Common Features Project levee improvement work. Additionally, the State, FEMA and Army Corps are working on regional flood plain mapping initiatives to begin the process of updating the antiquated maps using FEMA and State funding.

