

breached and dumping thousands of tons of rock into the stream bed. The surface of the Salton Sea stood at 195 feet below sea level when the break was repaired, and water lapped at the southern edge of Mecca.

Other than occasional flash floods, the sea's only source of water is farm drainage from Imperial, Mexicali and Coachella valleys. Evaporation during the summer months causes the sea's elevation to fluctuate about one foot annually. Total evaporation is about 6.5 feet a year. The Sea reached its lowest elevation, 250 feet below sea level, in 1925, and since has gradually risen to its present elevation of 227-228 feet below sea level.

In the late 1970s and 1980s, major flash flooding in Imperial and Coachella Valleys and flood controlled releases from Colorado River dams negated local conservation efforts to control the rising sea (Coachella Valley Water District, 2000). In 1979 and 1980, for the first time since Hoover Dam was built, all major reservoirs on the Colorado system were full and water was released for flood orders. The additional Colorado River water flowed to Mexico, where it was put to use irrigating increased acreage in the Mexicali Valley. Because Mexicali farmland also drains to the Salton Sea, a portion of the released water eventually wound up in the Salton Sea. Major flash floods hit the desert nearly every year from 1976 to 1983. The sea's elevation increased 9 inches during the flooding of September 1976, alone .

Because the sea has no natural outlet, salinity has been increasing and there is concern that it will someday be unable to sustain fish life. Riverside County has entered into a Joint Powers Agreement with the Coachella Valley Water District, Imperial County and Imperial Irrigation District to find a solution that saves the sea's recreational value without reducing its function as a repository for irrigation drainage waters. The Imperial Irrigation District faces State mandates to reduce waste flows to the Sea. Also, the Imperial Irrigation District and the Metropolitan Water District of southern California have an agreement to divert conserved Colorado River water from Imperial to coastal cities. Full implementation could reduce flows into the Salton Sea.

Rising water causes problems for recreational facilities around the Sea, most of which are located at water's edge. With the relatively flat shoreline, a slight increase in elevation can cause flooding. As more land has been placed under cultivation, more water from the Colorado has been brought in for irrigation, creating additional drainage water, which has increased the elevation of the Sea. Improved irrigation practices and a cutback in California's use of Colorado River water after the Central Arizona Project is completed are expected to contribute to a gradual decrease in the sea's elevation during the next two decades (Coachella Valley Water District, 2000).

3.5.10 Riverside County Flood Control and Water Conservation District Projects

A list and summary of proposed Riverside County Flood Control and Water Conservation District projects for fiscal year 2000 is summarized in Table 3-5, and the motivation for each project is described below:

**Table 3-5: Flood Control Project Request FY 2000
Riverside County Flood Control District**

AREA	DESCRIPTION	AMOUNT
SANTA ANA RIVER at NORCO BLUFFS	Construction-General	\$2,200,000
SANTA MARGARITA and MURRIETA CREEK SUB-BASIN	Feasibility Study - Flood Control	\$232,000
	Preconstruction Engineering & Design	\$100,000
SAN JACINTO RIVER	Reconnaissance Study - Flood Control & other purposes	\$100,000
SANTA ANA RIVER – MAINSTREAM	Construction-General	\$23,000,000
PRADO DAM	Construction-General	\$5,000,000

Santa Ana River At Norco Bluffs: The Santa Ana River passes along the northerly border of the city of Norco. The southerly bank of the river is a bluff, varying from 46 to 96 feet above the streambed. Atop the bluff is a residential neighborhood. In the floods of January and February 1969, flow impingement on the riverbank undermined the toe of the slope, causing severe bank sloughing. The bluff retreated 50 to 60 feet to the south. No improvements were lost, but the threat became apparent. The floods of 1978 and 1980 caused another 30 to 40 feet of bluff retreat, and the loss of a single family residence.

Santa Margarita, Murrieta Creek Sub-Basin: Murrieta Creek passes through the cities of Murrieta and Temecula in southwest Riverside County, then confluences with Temecula Creek to form the Santa Margarita River, which flows into San Diego County, through the Camp Pendleton Marine Base, and into the Pacific Ocean. Murrieta and Temecula experienced severe flood damage in January 1993, estimated in excess of \$10 million dollars, from Murrieta Creek overflow. Camp Pendleton also suffered extensive flood damage, estimated at \$88 million, to facilities and aircraft due to Santa Margarita River overflow. For the past several years, a coalition of local citizens, community leaders, environmentalists, and developers have worked closely with the District to identify solutions to the flooding problems within the Murrieta Valley. A U. S. Army Corps of Engineers Feasibility Study addressing flood control, environmental enhancement, and recreation for Murrieta Creek was initiated in April 1998.

San Jacinto River: The 730-square mile San Jacinto River watershed drains into Lake Elsinore in western Riverside County. The San Jacinto River originates in the San Jacinto Mountains and passes through the cities of San Jacinto, Perris, Canyon Lake and Lake Elsinore. The river is an important regional resource that provides water supply, wildlife habitat, drainage and recreation values to the region. The only major flood control structures on the river are levees in the city of San Jacinto built by the Corps of Engineers in the early 1960s. In the 30-mile reach of the river between Lake Elsinore and the city of San Jacinto, only minor channelization exists. The river is characterized by expansive overflow areas, including the Mystic Lake area (Riverside County Flood Control and Water Conservation District, 1999). The San Jacinto River has caused major flooding damage to agricultural areas and rendered Interstate 215 and several local arterial transportation routes impassable.

Santa Ana River Mainstem Project: The Water Resources Development Act of 1986 (Public Law 99-662) authorized the Santa Ana River Mainstem project, which includes improvements and various mitigation features, set forth in the Chief's Report to the Secretary of the Army. The Boards of Supervisors of Orange, Riverside, and San Bernardino Counties continue to support this critical project as stated in past resolutions to Congress. Significant construction has been completed on the lower Santa Ana River Channel and on the San Timoteo Creek Channel. Construction activities on Oak Street Drain and the Mill Creek Levee have been completed. Seven Oaks Dam construction is complete. For FY 2000, appropriations were requested by the Riverside County Flood Control and Water Conservation District (1999) to address various endangered species issues, as well as maintenance and construction projects along the Santa Ana River Channel.

Prado Dam: The Prado Dam portion of the Santa Ana River Mainstem project continues to advance to an eventual construction start (Riverside County Flood Control and Water Conservation District, 1999). Engineering design for the dam embankment and outlet works is approximately 90% complete. Design work has been initiated on the various interior dikes included in the project, and additional design contracts are ready to be let for the balance of engineering work necessary prior to construction.