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Major flood project completed on Lower Guadalupe River in San Jose

By Paul Rogers
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San Jose's main river, which has flooded 15 times since World War II, has become significantly safer following the completion of a flood-control project that also allows people to hike or ride bicycles directly from downtown San Jose to the edge of San Francisco Bay.

The Santa Clara Valley Water District gave final approval this week on a \$32 million project that upgraded flood protection on the lower Guadalupe River.

The work, begun in 2003, raised levees and flood walls up to three feet along 6.5 miles of the river from Interstate 880 to Alviso, where it empties into the bay. The district also spent an additional \$16 million to raise the Highway 237 bridge over the river by six feet, allowing more water to flow under in heavy winter storms.

"We were trying to find a balance between the river in its natural state and the need for more capacity for flood conveyance," said Katherine Oven, deputy operating officer for the water district.

"Forty years ago, for these kinds of projects, you just lined the banks with concrete."

Instead, crews left the main channel of the river intact for fish, with a swath of trees and other vegetation at least 20 feet wide on each side. Beyond

the vegetation, they created two overflow channels so that in heavy storms, sediment can drop out there. Once a year, water district crews will dredge and remove vegetation in the overflow channels, maintaining river capacity.

The goal is to prevent the errors of the past.

The lower Guadalupe River flows past Mineta San Jose International Airport, thousands of homes, condos and apartments, and technology companies including Cisco Systems, Brocade and Samsung. The last flood control project there was completed in 1983.

Engineers thought then that the river had protection against a 100-year flood, the kind of flooding so bad that it has a 1 percent chance of happening in any year.

But to their dismay, in 1995 during heavy winter storms, so much water roared down the lower Guadalupe that it nearly poured over the banks. That disaster was averted when the river flooded upstream near downtown San Jose instead, submerging 150 homes, prompting rescues in rowboats and forcing the San Jose Sharks to call off a game, the only National Hockey League game ever postponed due to rain.

The 1995 storm was considered to be only a 25-year flood event, making it clear that the river could not handle a 100-year event.

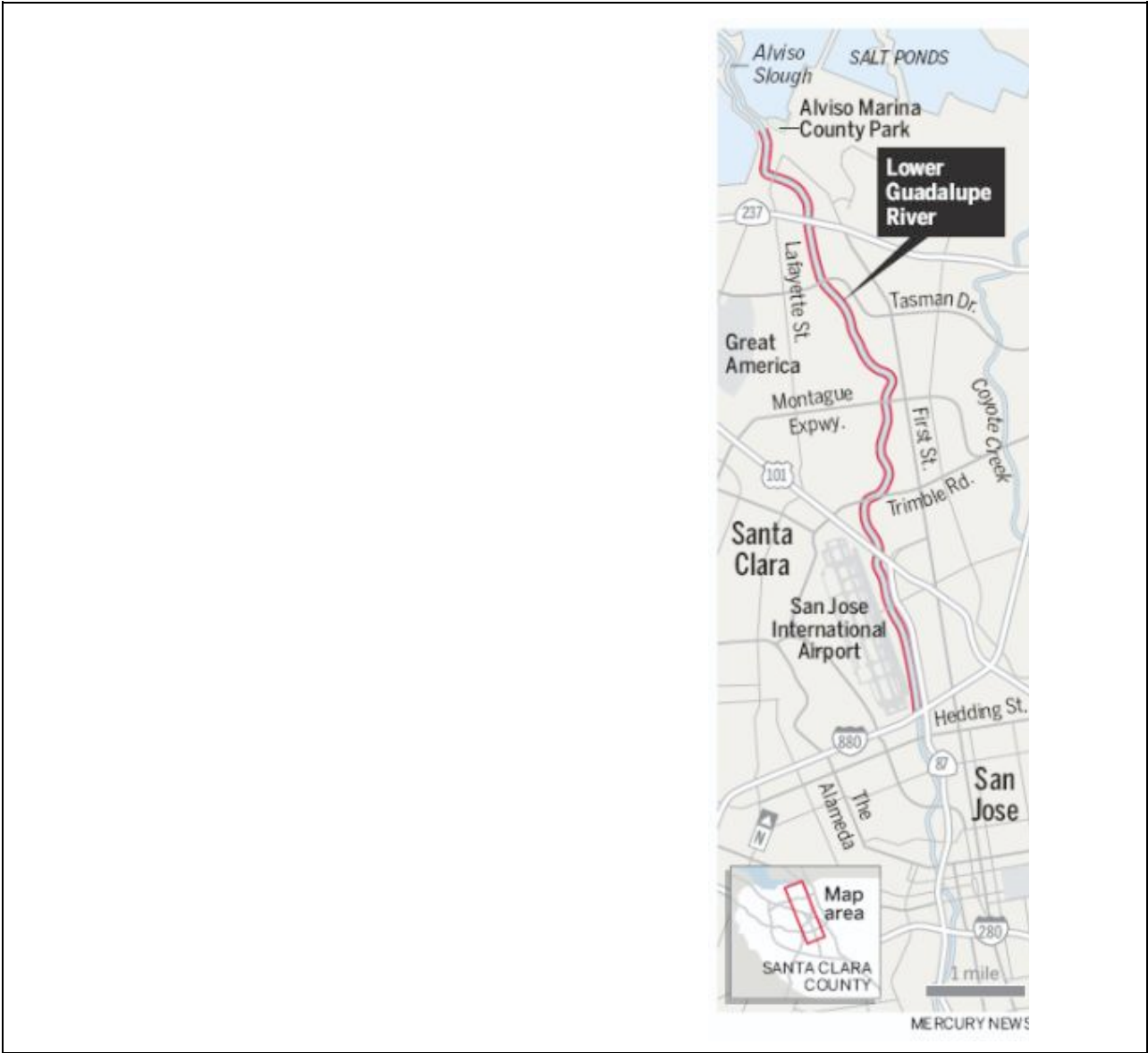
So much sediment and plant growth had built up in the lower river in the 1980s and early 1990s that the channel lost 40 percent of its carrying capacity. The new project, along with its two extra sediment channels and access roads for crews to remove sediment, should alleviate that problem, said Ngoc Nguyen, senior project manager for the water district.

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The river now has 100-year flood protection, not only in the lower reaches, but also downtown. In 2005, the water district, the city and the Army Corps of Engineers completed a \$350 million project along the river from Interstate 280 to I-880. At its center was the creation of the Guadalupe River Park & Gardens adjacent to HP Pavilion.

Additionally, the water district broke ground in July on a \$256 million effort to provide 100-year flood protection along the upper river for six miles, from Interstate 280 near the Children's Discovery Museum south to Blossom Hill Road near Highway 85. That work is expected to be done by 2016.

A key feature of the downtown and lower river work is the completion of an unbroken trail along the levees, funded by the city and running nine miles from downtown to Alviso.

A 2007 study found that nearly 1,000 people use the Guadalupe River Trail system every day, and of those, nearly 40 percent are commuting to and from work.

"It's exciting to see that trail growing year by year. People want to be out, being healthy, they don't want to sit in traffic. They are more concerned about air pollution, their own health, global warming, all these issues," said Greg McPheeters, vice president of the Silicon Valley Bicycle Coalition.

Many residents of Alviso, San Jose's lowest-lying neighborhood, would like to see more work done on the river. They have advocated for years that a thick stretch of vegetation be cleared near Alviso's Gold Street Bridge.

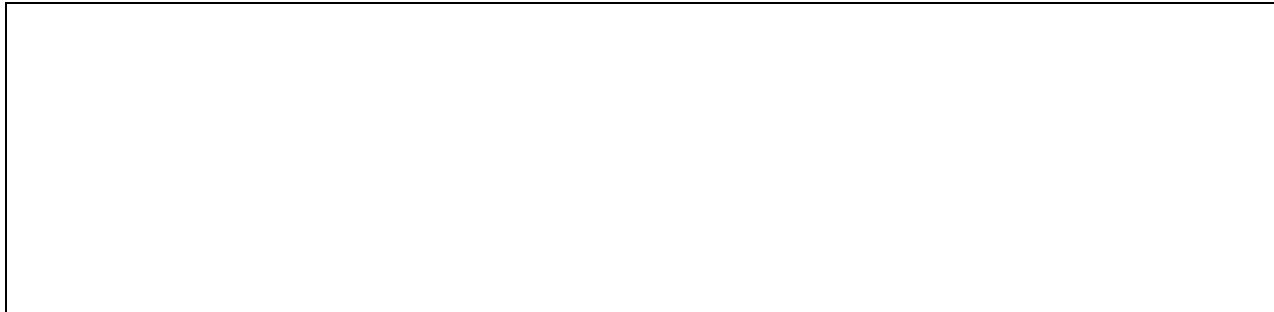
Although water district engineers say Alviso now has 100-year flood protection, residents fear the vegetation in the channel will cause a flood. They want it removed to reopen San Jose's waterfront to

kayaks, canoes and small boats.

"If removing vegetation and silt is good for downtown San Jose, it should be good for Alviso," said Dick Santos, an Alviso resident who sits on the water district board.

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