

ARROYO MOCHO: Environmentally Enhanced Flood Control Channel Anticipates Future Fish Passage

DUBLIN, CALIFORNIA



Photo Station 4: from Vulcan Bridge viewing east (Mar '04)



Photo Station 5: from northeast end viewing southwest (Jan. '04)

Photo Source: Davis Environmental Consulting (2005)

What was done and why?

To accommodate the combined flood waters of the Arroyos Mocho and Las Positas, the Zone 7 Water Agency widened and deepened a 640 m (2,100 ft) reach of Arroyo Mocho, between the existing confluence and El Charro Road. The new channel configuration is similar to a newly constructed channel in Arroyo Las Positas, with a meandering low-flow channel, flood terraces, and access roads. The Arroyo Mocho channel was graded with a 24-m (79 ft) channel bottom and a total width of 75 m (246 ft). To match grades with the existing downstream reach of Arroyo Mocho and the upstream reaches of the Mocho and Las Positas, restoration included removal of an existing concrete confluence drop structure and replacement with a new, fish-passage friendly drop structure. Construction began in April 2003 and was completed in January 2004.

Who was involved?

The project was sponsored by the Alameda County Community Development Agency, Zone 7 and the project design and monitoring participants included Davis Environmental Consultants, Restoration Resources, Ruggeri Jensen and Azar & Associates, Graham Matthews & Associates, and Alameda County Community Development Agency, Zone 7.

Where can I see the restoration project?

This site is situated north of the Livermore gravel pits and south of Interstate 580 (37.6940N; 121.8490W) in the town of Livermore, California. Project details can also be viewed at: http://landscape.ced.berkeley.edu/~kondolf/NRRSS/Arroyo_Mocho/

Why is this a model project?

This is a model project because forward thinking was focused on ensuring fish passage through the site even though many fish passage barriers currently exist downstream of the project site. This approach allows for a project by project improvement in habitat value within creeks, while maintaining the desired level of flood control and protection. As the downstream fish barriers are removed, the cumulative length of fish-accessible creek dramatically increases.

For more information on these projects, please contact:

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