

impacting the red-legged frog and other species, and identify changes that could be made to alleviate or reduce impacts. The District provided \$10,000 in seed money to facilitate preparation of the HCP. By May 1999, 13 participants had formed an independent group to fully fund the plan and hire a consultant to prepare the HCP.

Riverbank Restoration and Revegetation Projects

District staff serve as stewards of the Carmel River, working to establish a stable river channel flanked by lush vegetation that will provide protective habitat for wildlife and a barrier against erosion. In 1999, staff focused on working with private property owners to repair streambanks damaged by high flows that occurred in 1998. In addition, improvements were made at District restoration sites.

All Saints Restoration Project Completed

In December 1999, the first phase of the All Saints Restoration Project was completed. This project encompasses 2,000 feet of the Carmel River along 15 privately owned properties and included grading the channel bottom, installing granite rip-rap to guard against erosion and constructing log/rock deflectors at critical bends in the river channel. Staff also began to revegetate the streambanks and floodplain areas with native riparian plants.

Assisted Property Owners with Riverbank Repairs

District staff provided inspection, oversight, and technical assistance at river repair sites. In addition, staff reviewed completed projects for compliance with permit conditions. The District also supplied approximately 1,300 willow pole cuttings to property owners for use in their stream bank revegetation efforts.

Applied for Long-Term U.S. Army Corps Permit

In May 1999, the District applied to the U.S. Army Corps of Engineers for a long-term permit. This permit would authorize the District to undertake riverbank restoration projects and routine maintenance activities for a specified period of time, and allow the District to oversee projects undertaken by private landowners.

Repaired deDampierre South Irrigation Well

The deDampierre South well is used in the summer to irrigate vegetation planted in riverbank restoration sites. The well was damaged by floodwaters in 1998, and repaired in 1999. The District was awarded a \$12,000 grant from the Federal Emergency Management Agency to fund the full repair of the irrigation well.

Propagated Plants from Seeds collected in Carmel River Area

In an ongoing effort to improve natural vegetation along the Carmel River, District staff collect seed from native streamside trees and shrubs for propagation by a local nursery. When the seedlings are large enough, they are transplanted at the District's restoration sites. In 1999, approximately 261 native riparian seedlings such as dogwood, currant, sycamore, box elder and elderberry were planted.

Monitored Growth of Streamside Vegetation

The District monitors the long-term effects of groundwater pumping on vegetation in the Carmel River basin. During the dry season, District staff took weekly measurements of leaf moisture stress and soil moisture and conducted annual surveys to document height, growth rate and survival of plants in District restoration projects.



The All Saints Restoration Project presented the District with a unique opportunity to involve eighth grade students from All Saints Day School in the plan to revegetate and irrigate a section of the restoration project area that is owned by the school.