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Tools from Nature Used to Shore up Arroyo Banks

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Logs, tree roots and other tools of nature are being used in a federally sanctioned pilot project aimed at battling serious streambank erosion along the Arroyo de la Laguna between Pleasanton and Sunol.

The Arroyo is being severely impacted by runoff from the upstream Tri-Valley watershed, with several feet of streambank eroding each year.

The project is a collaborative effort by local, state and federal agencies to demonstrate a series of “biotechnical” stream restoration practices not often used in a semi-urban area. The idea is to protect the streambank and water quality in a way that also improves and creates wildlife habitat.

There will be a celebration of the restoration project on Mon., Oct. 30. The open house will be 10:30 to 11:30 a.m. or 12:30 to 1:30 p.m. Access is from the Pleasanton Ridge Park parking lot.

To help slow down the water and deflect it back to the Arroyo’s center, while creating healthier habitat, the project uses harvested eucalyptus trees, Christmas trees, root masses from fallen oak trees, rock barbs, and new vegetative plantings.

“We’re using biotechnical restoration practices we’d use in a stream out in the middle of Wyoming, or in very rural areas of California,” said Terry Huff of the U.S.D.A. Natural Resources Conservation Service (NRCS). “In the Arroyo, there are somewhat different flow characteristics due to upstream urban runoff and water releases from the Del Valle reservoir. We believe these soft, environmentally friendly biotechnical practices will work and our national NRCS streams engineering team who has visited the site on two occasions agrees with us.”

If successful, these practices may be utilized in other parts of the watershed with similar issues.

The project is located along a 1,000-foot section of the Arroyo de la Laguna, owned by the San Francisco Public Utilities Commission, about a half mile south of the Verona Road bridge between Pleasanton and Sunol.

The Arroyo is the main tributary to Alameda Creek, the second largest drainage to the San Francisco Bay.

The Arroyo de la Laguna drains approximately 400 square miles of the upper Alameda Creek watershed in the Tri-Valley region, and provides habitat for the California red-

legged frog, the Western pond turtle, migrating song birds, and other local wildlife. The project will also improve habitat for steelhead trout, once downstream barriers to fish migration are removed.

This project demonstrates regional collaboration. The NRCS, in conjunction with the Alameda County Resource Conservation District, is teaming up with the San Francisco Public Utilities Commission, Livermore-Amador Valley's Zone 7 Water Agency, Alameda County Public Works Agency, and the Dublin San Ramon Services District on this $650,000 pilot project. The eucalyptus trees were donated by Four Winds Nursery in Fremont, which removed the trees from Mission Creek during another stream improvement project.

"Alameda Creek is an important public resource that brings together many groups that share responsibility for its protection and restoration," said Tim Ramirez, SFPUC natural areas manager. "We hope to partner with these groups on many more projects involving Alameda Creek."

The collaboration also has included support and advocacy of two area members of Congress, Rep. Pete Stark and Rep. Ellen Tauscher, along with Alameda County Supervisor Scott Haggerty.

The project is located within an area identified in Zone 7's newly adopted Stream Management Master Plan. The plan refocuses flood protection from channelization to upstream detention in a chain of lakes, and includes streambank bioengineering and biotechnical techniques. Zone 7 hopes to learn more from this pilot project. "We're looking at an alternative, more environmentally friendly approach," said Zone 7 Board President Jim Concannon.

The silt reduction will also improve water quality for the downstream Alameda County Water District, which provides drinking water to the Fremont, Newark and Union City Area. District General Manager Paul Piraino said that's because it would allow cleaner water – in greater amounts – to percolate into the groundwater basin in the lower watershed.

Improved habitat could be effective in restoring steelhead trout runs in Alameda Creek and its tributaries by reducing streambank erosion, controlling sediment, creating pool habitat, and restoring riparian vegetation, said Jeff Miller, director of the Alameda Creek Alliance. "It is nice to see numerous agencies cooperating on restoration projects that attempt to restore stream channels using natural materials rather than concrete. This is a welcome trend that is going to vastly improve the wildlife habitat and aesthetics of the arroyos."