

## Connecting Round Valley Students to Town Creek Restoration

In 2021, the Eel River Recovery Project (ERRP) was awarded a Department of Water Resources (DWR) Urban Streams Restoration Program (USRP) grant to do work in Covelo in northeast Mendocino County. The Town Creek Restoration and Education Project originally was aimed at intensively treating one site by building a large-scale bioengineering structure with imported boulders and large wood. It has now changed to a low-tech approach using mostly living willow and fully involving students from nearby schools and the community.

Until the mid-1980s, the Round Valley County Water District (RVCWD) was allowed to use heavy equipment to excavate excess gravel from Mill Creek and its tributaries Town, Grist and Short creeks to maintain flood capacity. Since the cessation of channel clearance, berms that confined the flow have been washed out and major bank erosion has taken place. A site on Town Creek below Airport Road has acute bank erosion problems. The channel has widened to 300 feet and has long-term potential to re-route and create major problems for Covelo.

In 2019, the RVCWD requested that ERRP consider filing for a DWR USRP grant to treat the Town Creek Airport Road site. After landowners confirmed the need and willingness to participate, ERRP recruited BioEngineering Associates to design and build a project to remedy bank erosion and create improved fish habitat. Once the project opened, DWR requirements for perpetual easements and deed restrictions were not acceptable to the landowners and the project changed to planning and permitting only.

Eric Austensen of Streamline Engineering joined the ERRP team in late 2022. He pointed out that there needed to be system-wide flood planning because channel constraints downstream of the restoration site could back up floodwaters and promote continuing aggradation and flood risk. He also offered a design alternative that would use no imported large rock or large wood, and instead will use only willow and stream aggregate. A major thrust of the project is involving students from nearby Round Valley Elementary School (RVES) and Round Valley High School (RVHS) in a meaningful way.



**Pat Higgins (l), ERRP Outreach Coordinator Lourance Hall, and educational consultant Viviana Field.**

ERRP Outreach Coordinator Lourance Hall and educational consultant Viviana Field are working closely with RVES teachers and classes. Viviana is leading projects that focus on art with younger students (K-3), and building a watershed model with middle-school students. The artwork and model will be on display at the Covelo Library Commons as part of the 2023 Earth Day celebration, which will include a hosted open house on Friday, April 21.

Lourance has established excellent working relationships with RVHS teacher. Classes have had presentations from ERRP Managing Director and fish biologist Pat Higgins and restoration specialist Chris Tebbutt. High school students will help with restoration planning and implementation as part of school projects, in association with Future Farmer of America (FFA) programs.

Pat Higgins and Chris Tebbutt have been friends for 30 years. and during that whole time, Chris and his wife Stephanie have been restoring Anderson Creek that runs through their organic farm near Boonville, using willow and deep-planted cottonwoods.

When Pat asked Chris if he would help teach students (and the community) about deep planting cottonwoods as part of a Town Creek demonstration restoration project, he jumped at the chance. He and Stephanie would bring native willow and cottonwood poles from Anderson Valley to Covelo, if we could get an excavator operator. Lourance connected ERRP with expert excavator operator Chance Hart and plans were made with landowner Jimmy Durall to plant an area 60 feet by 20 feet. Stephanie and Chris arrived with enough cottonwood and willow poles to span the 350 width of the parcel, and when they asked for permission, Jimmy gave the OK!



**Jimmy Durall orients Stephanie Tebbutt (l) and equipment operator Chance Hart.**



**Jimmy Durall looks on approvingly as Chris directs planting of second cottonwood.**

After delaying the project for a week due to snow at the restoration site, the deep planting of cottonwood and willow was successfully carried out on Friday, March 10. The clouds parted, revealing snow-covered hills, rainbows formed in the morning mist and later in the afternoon it was tee-shirt weather. More than a dozen classes from RVES and RVHS came to watch as 15 foot long cottonwood and willow poles were deeply planted. Deep planting allows roots to sprout and extend down into the water table, making it unnecessary to irrigate them.

Students pitched in by helping stage the poles in a small pond in the pasture to keep them wet. They shoveled aggregate that the excavator had left on grassy areas into the holes where trees were planted. Students were also taught about willow planting, including gathering willow cuttings, shoving sprigs in the eroding wet banks, and pounding stakes into wet areas of the gravel bar on the stream margins. In total more than 3 dozen willow and cottonwood poles and 125 willow stakes were planted.



**Lourance Hall passes out willow cuttings to RVES 2<sup>nd</sup> graders, while teacher Casey Cann looks on.**



**Stephanie Tebbutt directs RVHS students deep planting willow stakes.**

The use of willow and cottonwood is inexpensive and could be employed by riparian landowners anywhere in Round Valley without a permit, if they are not operating in the channel. The RVCWD believes this approach could be exported and mimicked at other sites as the District, ERRP and RVIT plan and implement restoration across the Round Valley floor. Students will be taught how to use the Avenza Maps Ap as they map where cottonwoods are with the assistance of ERRP contractor Noel Soucy of Soucy Biologique. They will also make a map of where car bodies and truck tires have been used to stabilize banks in the past so that these can be removed and the riparian zone restored. Noel will turn GPS data into maps and posters for display at schools or at community meetings. The maps will be included in the project's Final Report, which will be used to help secure future funding. For more information, call Lourance Hall at 707 972-3637 or see the ERRP website ([eelriverrecovery.org](http://eelriverrecovery.org)) or Facebook page ([www.facebook.com/EelRiverRecovery/](http://www.facebook.com/EelRiverRecovery/)).