

Mill Creek Roofwater Harvesting Westside Elementary School

Historically, during post-European settlement, the Mill Creek watershed (Russian River) harbored livestock grazing, crop farming, fruit and grape cultivation, and mill establishments. The effects of intensive logging, which left a significant legacy, can still be seen in the watershed. The Mill Creek watershed is completely privately owned, and landowners pursue a diverse mixture of land uses. Over time, wine grape growing has expanded and is now the predominant land use.

Although there is excellent salmonid rearing habitat in the upper portion of the watershed, the lower reaches consistently experience a lack of water reliability during the dry season, which affects fish and human water users alike. Due to this impairment and the great potential for coho salmon recovery, Mill Creek is a focus watershed for coho recovery.

West Side Elementary School and its primary water source (a groundwater well) sit adjacent to Felta Creek, a major tributary to Mill Creek. Felta Creek is home to juvenile coho salmon, which reside in pools that consistently dry out during the summer.

The school's need for water peaks during the driest times of the year, which are also the most critical months for juvenile coho survival. A 30,000 gallon rainwater catchment system was designed and constructed to offset the school's demand on its near-stream well with the goal of keeping more water in the creek during the critical summer months.

The school harvests water from the classroom rooftop during the rainy season, stores it in a six-tank system, and uses it for garden irrigation during the dry summer and fall months. The water is pumped and pressurized using energy captured through solar panels. Students and visitors are encouraged to learn how collaborative efforts such as this can make a difference in the watersheds where we live.

This project was completed in July 2018 with funding from the National Fish and Wildlife Foundation, State of California Department of Water Resources, and North Coast Resource Partnership.

More information:

<http://cohopartnership.org/projects/rainwater/>

<https://sonomarc.org/programs/water-resources/>



Project Partners: West Side Elementary School, Russian River Coho Water Resources Partnership, Sonoma Resource Conservation District, Trout Unlimited, California Sea Grant, Occidental Arts and Ecology Center, National Fish and Wildlife Foundation, State of California Department of Water Resources, City of Humboldt, North Coast Resource Partnership, Simon Michael Electric, Week's Drilling and Pump, FastSigns