



The WaterTalks Series is an ongoing program of educational events designed to provide people a place to learn about water-related topics. The program goal is to increase informed participation in water management policy decisions by providing a place for community members to interact with experts who have a diverse range of perspectives and to develop common understanding. Water Talks is a program of the Santa Clara Steelhead Coalition led by California Trout.

Clean Water for Fish, Farms and Families

Dr. Scott Hecht, NOAA, Jenny Newman, LA Regional Water Quality Control Board and Nancy Broschart, Ventura County Farm Bureau



Wishtoyo's Ventura Coastkeeper Program

Southern steelhead need freshwater environments to spawn and rear young. High water quality within those environments is vital to the species' success because 1) clean water supports the presence of aquatic invertebrates, forage fish and other food and nutrients required by steelhead and 2) growth of cover vegetation that shades produces the cool optimal aquatic temperature (4-18°C) required by the species. Streams, rivers, and estuaries are all major steelhead freshwater habitats. However, these zones are surrounded by vast areas of urbanized and farmed land. Runoff from the human-altered areas contains pollution that drains into the freshwater habitats and degrades the water quality. Actions throughout the watershed are critical in order to support a viable steelhead population thriving in clean, cold water.

Dr. Scott Hecht has been with NOAA's National Marine Fisheries Service Office of Protected Resources in Olympia, Washington for the past 14 years primarily for consulting under the Endangered Species Act to determine adverse effects of contaminants on threatened and endangered species including Pacific salmon and steelhead.

Jenny Newman is a Senior Environmental Scientist and TMDL Unit Chief at the Los Angeles Regional Water Quality Control Board.

Nancy Broschart, water policy specialist for the Farm Bureau of Ventura County, has over 20 years of professional water resources experience and manages all Farm Bureau activities related to water quality regulations, supply and policies. In addition to overseeing compliance with the Agricultural Conditional Waiver and Total Maximum Daily Loads in various locations, she participates in groundwater sustainability efforts and grant funding programs to support Ventura County farmers.

Clean Water Act

The federal Clean Water Act (CWA) is an important tool in steelhead conservation by ensuring high quality water is available in all steelhead lifecycle phases.

- The CWA contains water quality standards and other mechanisms that protect aquatic life, human health, and water quality for other beneficial uses, by promoting policies and plans to protect water quality in a larger watershed context.
- The CWA establishes Total Maximum Daily Load (TMDL) pollutant limits on identified water bodies. These limits restrict discharges from existing responsible parties (such as cities or industries) as well as by future proposed projects.

Agriculture Runoff

- Many Santa Clara River TMDLs are a result of agriculture runoff from irrigation. Established TMDLs for the River vary with location and those related to agriculture practices include ammonia, pesticides and nitrogen.
- Techniques to reduce agricultural pollutant runoff on the Santa Clara River include sediment retention, increased biofiltration, reduced irrigation runoff, and reduced nutrient application.
- Agriculture practices are governed under a program developed by the Regional Water Quality Control Board known as the 'Ventura County Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands'. The program contains steps to reduce pollutant discharges in runoff.

Urban and Industrial Storm Water Runoff

- Urban storm water is generated over large, wide-spread areas. Urban storm water typically contains pollutants such as trash, bacteria, pathogens, and heavy metals. For example, low concentrations of dissolved copper, a heavy metal, is a neurotoxicant that directly damages the sensory capabilities of salmonids resulting in lower predator avoidance and decreased survival.
- Santa Clara River TMDLs associated with urban storm water runoff vary with location and include: trash at the lower river reaches, toxicity in the lower and mid-river reaches, and bacteria throughout the river length.
- Storm water quality is improved by projects such as: on site surface infiltration at urban development, green street infrastructure, large and small-scale storm water detention which retains sediment and incorporates natural treatment such as wetlands, and small but widespread use of rain gardens (water saving landscaping).

- With every significant rainfall, millions of gallons of contaminated surface drainage from industrial operations flow into local waterways. Government agencies and water quality experts agree that contaminated storm water accounts for more than half the total pollution entering surface waters each year. The result is impairment of receiving and downstream surface water and groundwater bodies, including impacts to aquatic-dependent wildlife.
- The City of Ventura municipal wastewater treatment plant releases a large daily outflow to the Santa Clara River estuary and this discharge results in water quality impacts.
- Proliferation of home water softening units has resulted in elevated levels of chloride in urban waste water and this constituent has passed through local treatment plants and impacted the Santa Clara River water quality. A TMDL for chloride is identified for mid-river reaches.

CalTrout and Coalition Projects

Wishtojo Foundation is team leader for the Santa Clara River Estuary (SCRE) Habitat Restoration Project. The project will produce 42 acres of habitat benefiting the endangered southern California steelhead and other native fish and birds as well as relocation of McGrath State Beach Campground, Wishtojo's Water Initiative protects and restores California's environment and waters to ensure the state's residents, tribes, and species benefit from clean water, reliable water supplies, rivers with sufficient in-stream flows, and an unpolluted environment. They do so using law, science, restoration projects, watershed monitoring, advocacy, education, and community outreach and organizing.

Caltrout and Sierra Club co-captain the Coastal Clean Up Day on The Nature Conservancy's Santa Clara River Gateway location, enlisting hundreds of volunteers in removal of thousands of pounds of trash from the ecological setting.

Ventura County Integrated Regional Watershed Management Plan

CalTrout is a member of the Watershed Coalition Ventura County (WCVC) which is a consortium of stakeholders engaged in local water resources management, including water supply, water quality, flood management, ecosystem health, and recreation. The WCVC has supported CalTrout, UC Santa Barbara, Santa Clara River Watershed Conservancy and The Nature Conservancy are working collectively to manage invasive species eradication, and restore riparian habitat that benefits associated water conservation and thus volume of instream habitat for steelhead. Increased instream water volume also assists in diluting toxins to lower levels.

Upcoming in the 2017 WaterTalks Series

Land Stewardship

April 27

Invasive Species and the Steelhead

May 25

Connectivity: Fish Passage & In-stream Flows

June 29

Technical Workshop: Regulatory Agency Permit Streamlining

Coming in April

For more information on the 2017 WaterTalks Series contact Nina at ndanza@caltrout.org