

A New Conservation and Management Plan for the Wild Trout of Sausal Creek



Sausal Creek is one of the few urban creeks in California to support a genetically 'wild' population of rainbow trout. It is truly an Oakland native!

Drawing on the expertise of our staff, board members, and volunteers, Friends of Sausal Creek prepared a plan that describes the status and trends of the fish population, details the threats and stressors affecting the health of the fish, and recommends actions necessary

for decreasing and reversing the harmful effects of human activities, past and present, that continue to imperil the very existence of rainbow trout in Sausal Creek.

The Conservation and Management Plan for Sausal Creek Wild Rainbow Trout was released on June 30th, and **is now available on our website for your consideration.**

Sausal Creek is the ancestral homeland of the Chochenyo-speaking Ohlone who knew rainbow trout as *haamuy*. The colonization of the region that led to the founding of the City of Oakland was devastating to the indigenous people, the redwood forests and oak woodlands where they lived, and also to the rainbow trout. Much of the damage done to the creek is permanent and irreversible; roads were cut into hillsides and criss-crossed the creek, forests and prairies were cleared for commercial, residential, and industrial development; and the creek was wrestled below ground where it was channelized and placed into culverts and tunnels to make way for a thriving metropolis.

Rainbow trout (*Oncorhynchus mykiss*) are actually the same species as steelhead trout, the difference being that the rainbow trout are confined to the creek by man-made, impassable barriers, whereas the erstwhile steelhead trout would swim all the way to the salty Pacific Ocean before returning to spawn in the freshwater of Sausal Creek. Historically, the trout would have matured and experienced a remarkable physical transformation (into steelhead) during their journey to and from the Ocean, but they also possess the ability to successfully reproduce while confined to Sausal Creek and without changing physical characteristics.

Today, the rainbow trout population is sheltered by the pools and riffles of the creek, and they can be observed in deep pools Sausal Creek southwest of State Route 13 in Dimond Canyon. If the fragmented reaches of Sausal creek could ever be restored and reconnected, this species could resume its ancient migration to the Ocean, and its characteristic transformation.

Given the severe modification and fragmentation of the waterway, the trout are now confined to just a few reaches, and this makes them especially vulnerable to a wide array of stressors

because they have nowhere else to go. People dump toxic materials into directly into the creek, and contaminants flow into the stream from pipes (outfalls) connected to stormwater drains. When raining, water flows across streets, down gutters, and into the creek via outfalls. This same drainage pattern applies when people spray-down patios and driveways, wash cars and trucks, or when lawns and landscapes are over-watered. Toxic constituents include trash, plastics, motor oil, soaps and cleansers, paint and solvents, domestic pet waste, fertilizers, herbicides, and pesticides.

At the same time, Impervious surfaces (e.g., sidewalks, streets, and parking lots) have changed watershed hydrology and stream hydraulics, resulting in the degradation of water quality and aquatic habitat, mainly through channel scour and excessive erosion. The removal of the streamside (riparian) forest has reduced canopy cover and shading, thereby increasing instream water temperatures and exposing the fish to predators and illegal fishing, and decreasing invertebrate populations and the availability of diverse prey for fish.

Disturbances that mix the water in otherwise tranquil pools degrade trout habitat by eliminating areas of cooler water; reducing clear water needed for efficient feeding; and suspending fine sediment that may impair the ability of fish to breathe. Common disturbances to the creek, such as romping dogs, rowdy mountain bikers, and enthusiastic hikers, can be detrimental and even fatal to the fish.

The Conservation and Management Plan calls for a dynamic array of actions needed to conserve and restore the creek as a whole, and to benefit the resident rainbow trout in particular. These actions include:

- “Daylighting” and restoring stream reaches buried in underground culverts into more natural stream channels;
- Replacing artificially hardened streambanks with more natural streambanks;
- Removing impassable barriers that prevent the movement of the trout including “drop-structures”, culverts, dams, and problematic road crossings;
- Replacing existing impervious surfaces, e.g., asphalt and concrete, with porous surfaces that allow for the infiltration of rainwater into the soil and groundwater;
- Constructing stormwater detention and biofiltration basins at strategic locations to intercept, retain, and store excess runoff from impervious surfaces;
- Retaining large woody debris and logjams in stream reaches where they do not pose a threat to public safety, infrastructure, and private property; and
- Eradicating and controlling the spread of non-native plants within the watershed, and planting native species in their place.

Against all odds, the native rainbow trout persist in Sausal Creek. These fish are our legacy and responsibility, and we look forward to partnering with agencies at all levels, the private business

community, and neighborhood groups across Oakland to ensure the survival of the species for their sake and ours.

You can help us ensure the survival of this unique watershed resident through the following practices:

- Planting native and installing rain gardens in your landscape
- Trash clean-up
- Do not disturb the rainbow trout populations or their habitat
- Keep your dog on leash near the creek
- Volunteer with FOSC!

[View the Conservation and Management Plan for Sausal Creek Wild Rainbow Trout Here](#)