

CONSERVATION CORNER

July 16, 2016

By Mel Odemar, VP Conservation Granite Bay Flycasters

THE CANTARA LOOP SPILL

In June of this year we had a club fishout on the upper Sacramento River, one of our favorite fishing venues. The Upper Sac, as it is commonly referred to, is a 41 mile stretch of high quality trout habitat consisting of pools, runs, riffles, cascades, and pocket water. The River is known for its wild native trout population and an abundance of invertebrate life that supports it. However, this was all temporarily destroyed by a single catastrophic event.

Twenty five years ago, on the night of July 14, 1991, a 97-car train climbing out of the Sacramento River Canyon derailed spilling several cars, including a chemical tanker, into the upper Sacramento River at a sharp bend of track known as the Cantara Loop. The tanker ruptured spilling more than 19,000 gallons of metam sodium, a soil fumigant intended for agricultural use that kills nematodes, fungi and weeds. As the metam sodium came into contact with oxygen in the water the toxins began killing all aquatic life. Every living creature in the river downstream from the spill died. Some of the toxins volatilized into the air, creating a toxic cloud above the river as the chemical plume moved downstream. Traveling at just under one mile per hour, the plume entered Shasta Lake on the morning of July 17, 1991.

Wildlife dependent on the river's ecosystem either starved or was forced to move because their food sources were no longer available. Over a million fish, tens of thousands of amphibians and crayfish, and millions of aquatic invertebrates and aquatic plants were destroyed. This destruction also involved alders and cottonwoods. The chemical plume left a 41-mile wake of destruction from the spill site to the entry point of the river into Shasta Lake. Occurring approximately 2.3 miles below Box Canyon Dam, the Cantara spill affected nearly the entire river ecosystem.

The Department of Fish and Game, as lead Trustee for a contingent of state and federal trustee agencies, initiated a Natural Resource Damage Assessment (NRDA) process under federal law to identify the injured resource, and estimate the type and extent of injuries. In 1994 a-out-of-court settlement was settled against Southern Pacific Railroad. The plaintiffs received \$38 million in damages of which \$14 million was deposited in an interest-bearing account to be used for

various programs intended to restore the system and mitigate for the injuries. The account earned over \$3 million in interest.

A 12 year restoration program managed by the Cantara Trustee Council (CTC) was initiated to direct the restoration program. The CTC funded numerous projects including restoration activities, land acquisition and protection, research, and public restoration. The decision was to let the river mostly heal itself, waiting four years until resuming trout introduction. The system had to grow from the bottom up before the trout could again take hold. To do otherwise would release trout into an ecosystem that would not support them.

As catastrophic as this spill was, some good has come from it. Since 1938 until the spill about 25 miles of the upper Sacramento River was regularly stocked with hatchery fish. Although hatchery programs are very popular and provide more fish for the angling public, wild native trout are becoming more valued by a segment of the fishing public, especially for fly fishers, and there is concern that the genetic qualities of trout are being compromised through hatchery inbreeding. A genetic study of Sacramento River trout funded by the Trustee Council established that Upper Sacramento River wild trout were genetically different from Mount Shasta Hatchery trout. Results of the study were instrumental in the development of angling regulations that insured that wild trout were re-established before fish harvesting were permitted. These regulations remain today and have resulted in a premier wild trout fishery.

Other projects that directly benefit the fishing public are the Pollard Gulch River Access Project; Prospect Avenue Fishing Access Project; and Tauhindauli Park and Trail; Cantara Loop land acquisition, and Dunsmuir Park land acquisition.

It is said that the Cantara Spill was an accident waiting to happen. With the newly buttressed Cantara Bridge it is unlikely that this accident will repeat. However, all of us who have fished the upper Sacramento know firsthand how precarious the rail line is as it hugs the banks of the river on a narrow twisting roadbed.

Train derailments are not rare events. The projected traffic of 100 plus car oil trains along the Upper Sacramento, Feather River, and Truckee River pose an increased threat of future catastrophic rail spills. Next time we might not be able to recover as well as has been done with the Cantara Spill.

