

Could It Happen Here?

A response to the Codornices Creek Rainbow Trout Kill

On April 3, 2019, around 10:00 a.m., a recycling truck in Berkeley filled with cardboard caught on fire. First responders acted accordingly and put out the fire using a fire retardant surfactant foam. This action put into motion what ended up being a catastrophic kill of over 100 fish. The surfactant foam drained into the neighboring storm drains, which dump directly into Codornices Creek, home to rainbow trout and steelhead populations. It is still uncertain whether these populations can recover.



Dead Rainbow Trout in Sausal Creek Photo credits: Rob Leidy

Could it happen to the Sausal Creek Watershed? Actually, FOSC has seen two [fish kills](#) in its recent history. In 2008, the illegal dumping of paint solvent down a storm drain resulted in the loss of 11 rainbow trout. Then, in 2010, EBMUD discharged water previously used to disinfect a newly installed drinking water pipeline into the storm drain without testing for residual chloramine. The result was the loss of 25 rainbow trout in Sausal Creek.

In light of the recent Codornices incident and our own history of trout kills, FOSC reached out to Kristin Hathaway, watershed manager for the Oakland Public Works, Watershed and Stormwater Management Division (WSMD). Hathaway has over 21 years of experience in this division and extensive experience working with FOSC and Oakland watersheds. She managed the 2016 Sausal Creek Restoration in Dimond Park and, more recently, partnered with FOSC on the Sausal Creek Erosion Control Project in Dimond Canyon. Together we discussed the April 3 incident and the City of Oakland's response protocol.

First, what led to the Codornices Creek incident? Susan Schwartz, executive director of Friends of Five Creeks in Berkeley, documented the incident in the [Friends of Five Creeks newsletter](#), noting several important factors. First, there was a delay in notification of the appropriate agencies. The release of the fire retardant surfactant foam took place at 10:00 a.m., but California Fish and Wildlife and Berkeley's Environmental Health Division were not notified until late afternoon (around 3:00 p.m.). According to Hathaway, the Codornices incident prompted a review within WSMD regarding their preparation for and current protocol should a similar event take place within Oakland watersheds. The Oakland Fire Department (OFD), WSMD, and Oakland's

Environmental Services Division are all currently undergoing discussions to review and coordinate communication and response actions for such an event.

When the foam retardant was released in Codornices Creek, neighboring storm drains were not covered to protect the creek from the pollutant runoff. This has called into question what, if any, protocol is in place for such an event: Are emergency response teams educated about the direct connection between storm drains and the ecosystems affected, and are they trained to respond in an appropriate and timely fashion to protect fragile ecosystems? Schwartz suspects a possible lack of understanding from several government agencies about how the foam impacted the creek's health. Hathaway clarified that the specific foam surfactant used by the Berkeley fire response team is rarely used by OFD in similar incidents. The OFD policy prioritizes the use of water rather than foam. We reached out to OFD for further insight on current procedures for fragile ecosystems but were unable to get a final comment before publication.



Rainbow Trout in Sausal Creek

Ultimately Susan Schwartz calls for a no-blame investigation following such events. The goal of an investigation is to quickly adapt and improve systems rather than engage in unproductive finger pointing. Hathaway responded to this call for action by stating that the WSMD's current protocol is to debrief and review procedures for improvements, including communications. Hathaway stated, "[WSMD] takes very seriously the protection of Oakland's creeks and water quality. We're taking steps to both meet our regulations and make sure that we have what we need in place. The silver lining [of the Codornices incident] is that it brought attention to making sure we have the appropriate standard procedure in Oakland."

For Codornices Creek, there is still some hope for the recovery of the steelhead/rainbow populations. On September 10, there were observations of a few live trout in the creek

during a survey by the California Fish and Wildlife Department. Unfortunately, soon after, on the afternoon of September 11 and 13, a large quantity of an unknown surfactant was dumped into Codornices Creek. [Schwartz writes](#).

“This was probably soap, but any such "wetting agent" destroys the waterproofing that trout need to breathe and pass nerve signals. The foam had reached the area where fish survived by Sept. 16, when early rain washed another slug of toxins, accumulated during the dry summer, into the creek. On Sept. 18, a major water main break muddied the creek for hours and, despite efforts, sent some drinking water down the creek with untreated chloramines, which are toxic to aquatic life. We may not know until next year's survey whether trout survived in this, our area's only trout stream.”

What can the public do?

- Report problems in a creek. In Oakland, call 311 or check the FOSC web page for assistance on how to report an issue: <https://www.sausalcreek.org/report-creek-problems>. Creek problems have been resolved because of our vigilant FOSC community. We count on your monitoring of Sausal Creek and immediate reporting to maintain a healthy watershed.
- Avoid pesticides, fertilizers, changing car oil, and using soap outdoors. The runoff from these products will enter Sausal Creek through nearby storm drains. **Only rain down the storm drain!**

The water contamination and resulting loss of rainbow trout and steelhead in Codornices Creek is a forceful reminder that both our individual actions and partnership with the City of Oakland are needed to help prevent a similar catastrophe from occurring in Sausal Creek or any of our urban watersheds.

--Becca Sanchez, Edited by Anna Marie Schmidt