



Region 9: Innovative Programs

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The Challenge:

Looking for gold in California streams and rivers is a recreational activity for thousands of state residents. Many gold enthusiasts simply pan gravels and sediments. More serious recreational miners may have small sluice boxes or suction dredges to recover gold bearing sediments. As these miners remove sediments, sands, and gravel from streams and former mine sites to separate out the gold, they are also removing mercury.

This mercury is the remnant of millions of pounds of pure mercury that was added to sluice boxes used by historic mining operations between 1850 and 1890. Mercury is a toxic, persistent, and bioaccumulative pollutant that affects the nervous system and has long been known to be toxic to humans, fish, and wildlife. Mercury in streams can bioaccumulate in fish and make them unfit for human consumption.

The Solution:

Taking mercury out of streams benefits the environment. Efforts to collect mercury from recreational gold miners in the past however, have been stymied due to perceived regulatory barriers. Disposal of mercury is normally subject to all regulations applicable to hazardous waste.

In 2000, EPA and California's Division of Toxic Substance Control worked in concert with other State and local agencies to find the regulatory flexibility needed to collect mercury in a simple and effective manner. These groups agreed to test two different mechanisms for collecting mercury during the summer of 2000. One approach was to add mercury to the list of materials that are collected at regularly scheduled or periodic household hazardous waste collection events sponsored by local county agencies.

Another mercury collection approach was to set up collection stations in areas where mercury is being found by recreational miners. One possibility would be to advertise a fixed location where people could bring mercury on a specific date and time. Another was to create a mercury "milk run" where state, local, or federal agency staff would come to locations specified by individuals or organizations such as suction dredging clubs, and pick up mercury that had been collected.

The Results:

In August and September, 2000 the first mercury "milk runs" collected 230 pounds of mercury. Not only was mercury received from recreational gold miners, but others such as retired dentists, also participated by turning in mercury that was in their possession. A Nevada County household waste collection event held in September 2000 collected about 10 pounds of mercury. The total amount of mercury collected was equivalent to the mercury load in 47 years worth of wastewater discharge from the city of Sacramento's sewage treatment plant or the mercury in a million mercury thermometers. This successful pilot program demonstrates how recreational gold miners and government agencies can work together to protect the environment. In the summer of 2001, State agencies planned to extend the program to six counties and include collection of mercury at summer mining fairs.

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