

Dutch Slough project threatened by past mercury mining

Remediation must occur before project

Starting as a trickle on the eastern slopes of Mount Diablo, Marsh Creek meanders through Brentwood and Oakley and empties into the San Joaquin River at Big Break. Along the way, Dry Creek, Sand Creek,

IT'S ALL IN THE PLANNING



KEVIN ROMICK

Deer Creek, Curry Creek and Round Valley Creek serve as tributaries. The Marsh Creek Watershed covers approximately 75,000 acres.

Marsh Creek Trail winds its way from the rivers edge in Oakley for 6.5 miles to Creekside Park in Brentwood. Projected to extend an additional 8 miles to Round Valley Regional Park, the trail connects the Delta to the foothills of Mount Diablo where nature appears undisturbed. In addition, even though much of Marsh Creek is now channelized, it still supports spawning salmon, rich bird life, and a small population of river otters. Winter provides an excellent opportunity to view geese, ducks and other waterfowl.

Seasonal strolling pleas-

anties, however, can often be marred by stark reality. Unfortunately, besides providing the origin for a calm walk, the creek is also a source for poisoning the Delta.

The discovery of gold in 1849 brought hordes of gold seekers to California. Those arriving first were lucky, rushing into the foothills to virtually pluck the nuggets from the creek and river bottoms. Gold seekers arriving later had to work harder to remove the gold from its hiding places.

One method of extracting gold from creek beds and rock is known as amalgamation. The principle of amalgamation is extraction of gold from the pulverized ore by mercury. In amalgamation, the pulverized rock was washed over plates covered with mercury. Because gold has a high affinity for mercury and bonds easily with it to form an amalgam (a mixture of elements), the gold would adhere to these plates, while other materials washed away. Workers would then scrape the amalgam off the plates and heat or smelt it to vaporize the mercury (which could be collected and reused) leaving the gold.

A century ago, the Coast Ranges of California were the site of the world's second largest mercury mines. Over 100,000 tons of mercury was dug out of the mountains and then transported into the Sierra Nevada for

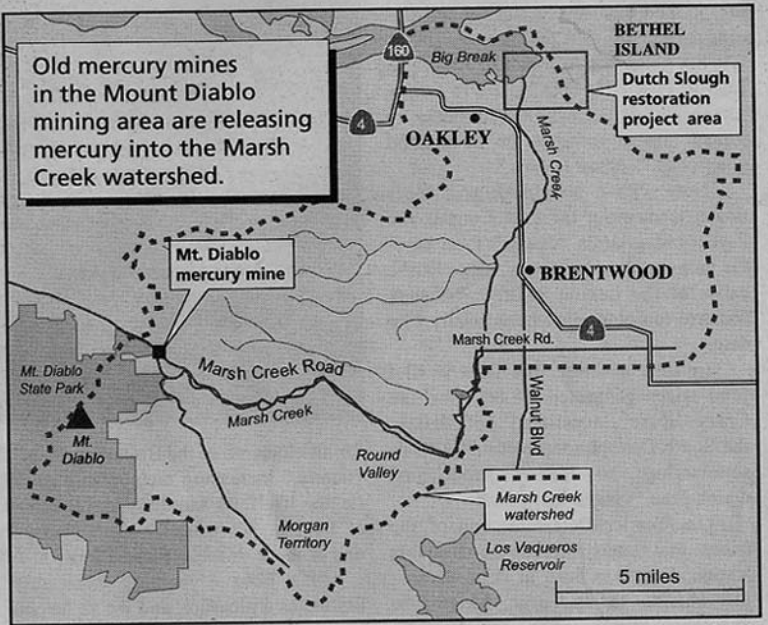
miners in the Gold Rush to extract the yellow metal. Mercury has been mined on the northeastern flank of Mount Diablo off on and on since 1863.

A man named Welch discovered cinnabar (cinnabar contains mercury) at what is known as the Ryne Mine in 1863. In 1933, it was discovered that black metacinnabar was found in the area known

as the Mount Diablo Mine and it also contained mercury. Mining continued through the Second World War and finally creased in 1958. Unfortunately, studies have shown that the old mercury mines in the Mount Diablo mining area are releasing mercury into the Marsh Creek watershed.

This toxic quandary presents a problem to CALFED and the marsh restoration project at Dutch Slough. One of the major goals of the project is to restore the Dutch Slough properties to a fully functioning, self-sustaining

see Romick page 13A



Source: Natural Heritage Institute, GreenInfo Network
Debra Janis/Press Graphic

OAKLEY PRESS

January 16, 2004

12A

EDITORIALS, LETTERS & COMMENTARY
OPINION

Romick from page 12A

ecosystem that includes a mosaic of habitat types including shallow water, emergent marsh, intertidal marsh, seasonal wetlands and flood plains.

The dilemma faced by CALFED in the restoration process is that microbial processes in the restored wetlands can convert mercury into a more dangerous form – methylmercury – fish can absorb methylmercury from their food and directly from water as it passes over their gills and pass it on up the food chain.

To prevent further delay in the Dutch Slough restoration project and avert increased mercury levels in the Delta, a remediation plan for the Mount Diablo Mercury Mine has to be put in place before wetlands are constructed downstream. Ongoing research in the Marsh Creek watershed has found that 80 percent of the downstream mercury could be traced to a single pile of exposed tailings at the abandoned mercury mine site.

At the August 2003 meeting of the California Bay-Delta Authority, resolution 03-08-09 was introduced, which would authorize the director to sign an interagency agreement with the Central Valley Regional Water Quality Control Board (RWQCB) to perform site assessments and develop permits for high priority inactive mine sites. The Mount Diablo site is a high priority because there is public interest in remediation of this mine site to protect Marsh Creek.
