

# The lessons of Malakoff Diggins

Lucy D'Mot, Sacramento Bee, 10-9-11

D'Mot has made it her mission to visit the 70 state parks slated for closure next year. The Bee will share a number of D'Mot's dispatches in its Sunday travel pages

Mother Nature would take many millennia to create the likes of the huge, colorful cliffs at Malakoff Diggins State Historic Park, 11 miles north of Nevada City.

These sheer bluffs were carved in just a few decades by streams of water shot from powerful cannons, washing away piles of dirt and gravel.

Gold miners used hydraulic mining, employing flumes and ditch systems, as they eroded and sifted the soil for the precious ore. As much as 100,000 tons of gravel per day would disappear. Entire mountains were lost.

The mining companies built a 7,847-foot tunnel that went right through the bedrock to serve as a drain.

Farms along the south Yuba River were flooded and destroyed. Silt flowed all the way to San Francisco Bay, impairing navigation on the Sacramento River and parts of the bay. River channels closed to steamboat traffic.

But because residents prospered from mining operations, they simply built their levees higher to hold off floodwaters.

In 1875 Marysville flooded. Because the town was surrounded by high levees, the floodwaters swept in and filled the area as if it were a giant bowl. Many residents lost their property or their lives.

Legal battles between mine owners and downstream farmers wended their way through the courts and the Legislature, with the first environmental law in the nation – the Sawyer Decision – finally ending the hydraulic mining in 1884. The conclusion did not come before the destruction of much farmland and the severe flooding of the town of Marysville.

Today, scientists continue to study the possible long-term effect of the mercury that was introduced into the ecosystem and water as part of the mining process. More than 125 years since the cessation of hydraulic mining, very little life has grown back on those water-blasted mountains. The gouged hillsides and choked streambeds will be visible long into the future.

The U.S. Geological Survey suspended recreational gold dredging five years ago since their annual studies continue to find higher-than-acceptable mercury levels in both the water and the fish, said senior park aide Debbie Pfanner. USGS scientists found that present-day suction dredging can be problematic if used as a management tool to remove mercury from the environment.

In a USGS report in January, research scientist Charles Alper wrote: "There are elevated concentrations of methylmercury, a toxic form of mercury easily taken up in the food web, in invertebrates collected from the study area compared with invertebrates from another site relatively unaffected by historical gold mining operations.

"Laboratory studies also showed that fine-grained, mercury-laden sediment from the South Yuba River-Humbug Creek area can produce toxic methyl-mercury when even very small amounts are mixed with organic-rich sediment from downstream areas such as Englebright Lake and the Sacramento-San Joaquin River Delta."

Despite such scars in the area, spring and summer hikers at Malakoff Diggins will leave with memories of the beautiful orange paintbrushes, the light golds of the Sierra sunflowers, the peekaboo of white in the lavender harlequin lupine and the intense violet of the Sierra onion. They and other wildflowers flourish here.

The park also boasts a waterfall as part of a 2.5-mile round-trip hike that shows off plenty of wildflowers as well as strange, orange-colored murky ponds, with frightened critters plopping into the muck every time they heard us approach.

At the waterfall, cool your feet in the stream, take some pictures, explore a cave and relax for awhile before returning to your car.

What will happen when we no longer can visit Malakoff Diggins? The buildings and grounds will no longer be maintained. The trails will become overgrown. Malakoff is off the grid. There is no electricity, and all facilities and maintenance are handled with generators.

You may still be able to sneak in a perfect summer day here since the hard date for closure of the 70 state parks is July 1. Temperatures on this visit were in the mid-80s and the day was sunny. Yet we saw only six other vehicles.

While it will be sad to lose the beauty and history of any state park, the lessons of Malakoff Diggins are best learned by seeing. With the closure of this park, the devastation can be neatly tucked away. Schoolchildren will only be able to read about the destruction rather than seeing it firsthand.

Not only did greed lead to ecological shortsightedness that generations today are still paying for, but with the park's closure it may continue. With gold at or near an all-time high, it seems likely that unauthorized dredging for gold will occur, and the decades of mercurial poisoning of the environment will continue.