

BAY AREA

New plan to cut mercury release into bay

- Jane Kay, Chronicle Environment Writer

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State officials are cracking down on mercury pollution in San Francisco Bay, issuing a plan Friday to reduce the toxic metal in storm water runoff and from old mines and the Central Valley.

After a decade of study, the San Francisco Bay Regional Water Quality Control Board is requiring cities and counties to cut mercury releases by 40 percent over the next 20 years to make the bay clean enough to produce fish that are safe to eat.

The scientists believe that it will take 120 years for the bay's mercury levels to return to pre-Gold Rush days, before the mining of both mercury and gold sent tons of the poison into watersheds and the bay.

Tom Mumley, division chief for planning at the regional water board, called the bay's mercury mess "an unfortunate legacy."

"Even if we stopped all new increases, which obviously isn't possible, it would still take three or four decades for the bay to recover," Mumley said. "It takes a long time for all the mercury to leave the bay. That's just Mother Nature."

Tighter limits on mercury will come, in part, as a result of new conditions on permits that cities and counties must get to operate sewage treatment plants, release storm water runoff into the bay and clean up mine wastes. Much of the new mercury that enters the bay washes off city streets.

"We aren't even sure what the biggest sources are to the bay -- our initial investigation didn't show one big source," said Geoff Brosseau, executive director of the Bay Area Stormwater Management Agencies Association, which encompasses 90 cities and counties.

Under the new plan, mercury in urban storm water runoff must be cut by half in two decades.

Brosseau said consumers could help by taking their fluorescent light bulbs, which contain mercury, for proper disposal, and by exchanging mercury thermometers for digital ones. Consumers can call (800) 253-2687 for locations.

Mercury falling from air pollution on streets is hard to control, Brosseau said. About 90 percent comes from as far away as coal-fired power plants in Asia.

The Santa Clara Valley Water District is one of the agencies responsible for cleaning up mercury from the now-closed New Almaden Quicksilver Mine, the biggest contributor to mercury in the Guadalupe River watershed.

The district is completing a \$1 million study to figure out the cheapest, most effective way of eliminating mercury in wastes. The new plan requires a 95 percent reduction in mercury from the watershed over 20 years.

A nationwide program to go after entrenched water pollutants such as mercury, PCBs and DDT, dates back 25 years. After decades of delay, fights between industry and environmentalists and court battles, the Bay Area is starting to attack its worst pollutant by setting "total maximum daily loads" for mercury.

Mercury damages neurological systems, particularly in the fetus and young child, and can impair learning and physical development. In adults, it can cause tremors and anxiety and affect memory.

Most of the bay's mercury lies embedded in sediments at the bottoms of creeks and bays, contaminating fish and other aquatic species. Leopard shark, striped bass, white sturgeon, California halibut, white croaker and shiner surfperch all carry mercury in their tissue. The California Environmental Protection Agency has issued health warnings for sport and subsistence anglers.

Recovery from mercury pollution occurs differently around the bay, said Michael Connor, executive director of the San Francisco Estuary Institute in Oakland.

"Near the deeper, fast-moving channels, the mercury-laden sediments can flush out of the Golden Gate over 50 to 100 years. In the wetlands at the shallower edges of the bay, cleaner sediments coming down the watersheds eventually bury the dirty sediments to depths below which organisms can live," Connor said.

According to the new plan, about 2,685 pounds of mercury enter the bay every year. The following are some of the sources and the proposed cuts over the next 20 years:

- Erosion of sediment accumulated on the bay floor, 1,012 pounds, which is expected to decrease over time.
- Runoff from the Central Valley watershed, 968 pounds, which must be cut by 33 percent.
- Urban storm water runoff, 352 pounds, which must be cut by 50 percent.
- Guadalupe River watershed, including the New Almaden Quicksilver Mine above San Jose, 202 pounds, which must be cut by 95 percent.

The regional water board must accept the new mercury plan, then send it to the State Water Resources Control Board and the U.S. Environmental Protection Agency for approval. The finished product may come out in nine months.

On Tuesday, there will be a public meeting on contaminants in the bay and cleanup alternatives. It will be held at the Lawrence Hall of Science in Berkeley from 9 a.m. to 4 p.m. The new plan to control mercury will be discussed in the afternoon.

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