OEHHA Releases Draft Advisory on Mercury in Fish in Tomales Bay

SACRAMENTO -- The California Environmental Protection Agency’s Office of Environmental Health Hazard Assessment (OEHHA) is seeking public comment on a draft fish advisory concerning elevated levels of mercury in fish in Tomales Bay in Marin County.

“Mercury levels in the fish at Tomales Bay are a reflection of the rich mineral ores in California’s Coast Range and the mining activity that has taken place over the years,” OEHHA Director Dr. Joan Denton said. “The public should still enjoy fishing at Tomales Bay, but we recommend that people – especially women of childbearing age and children – carefully monitor how much fish they eat.”

A fact sheet and a draft report containing the proposed advisories and OEHHA’s evaluations of potential health threats in the fish posed by methylmercury (the most prevalent and toxic form of mercury in fish) are available for viewing and downloading on OEHHA’s Web site at www.oehha.ca.gov.

OEHHA will hold a public workshop on the draft Tomales Bay advisory at 6:30 p.m. on May 17, to discuss and receive public comments on the draft evaluation and proposed advisory. The workshop will be held at the Dance Palace, 503 B Street, Point Reyes Station. Written comments on the draft advisory can be sent until June 9 to Dr. Margy Gassel in OEHHA’s Pesticide and Environmental Toxicology Section, 1515 Clay Street, 16th floor, Oakland CA 94612. OEHHA will review all comments, make any appropriate revisions and issue a final advisory.

The draft advisory contains proposed guidelines for consumption of fish and shellfish from Tomales Bay. One set of proposals is for women of childbearing age and children age 17 and younger, who are particularly sensitive to methylmercury. A second set of proposals is for women beyond their childbearing years and men. Until a final advisory is issued, OEHHA recommends that the public follow the advice in the draft advisory.

The draft advisory replaces an interim advisory issued in December 2000 by Marin County Department of Health and Human Services, in cooperation with OEHHA. The county advisory was based on fish and shellfish samples taken in 1999 by the San Francisco Bay Regional Water Quality Control Board. Samples taken since the county advisory have provided additional information on mercury levels in Tomales Bay fish and shellfish.
The draft advisory recommends that women of childbearing age and children age 17 and younger refrain from eating all sharks (including brown smoothhound sharks, Pacific angel sharks and leopard sharks), while limiting consumption to one meal a month of bat rays; or one meal a week of California halibut, redtail surfperch, pile surfperch, shiner surfperch or red rock crab; or three meals a week of jacksmelt.

Women beyond childbearing years and adult men should limit consumption to one meal a month of brown smoothhound sharks or leopard sharks; or one meal a week of Pacific angel sharks or bat rays; or three meals a week of California halibut, redtail surfperch, pile surfperch or red rock crab. Jacksmelt and shiner surfperch can be eaten daily provided that no other fish are eaten.

The draft advisory does not apply to commercial oysters, clams and mussels from Tomales Bay, as elevated levels of mercury have not been found in commercially grown shellfish in the area.

The principal source of mercury in Tomales Bay is believed to be the Gambonini mercury mine, which operated from 1968 to 1972 about six miles upstream from Tomales Bay. Water-quality studies have suggested that mercury-containing drainage from the mine entered Walker Creek, which flows into Tomales Bay. Remediation work at the mine has focused on reducing runoff from the mine into Walker Creek.

After entering rivers, streams, and estuaries mercury accumulates in the sediment. Bacteria convert the inorganic mercury to the more toxic methylmercury, which fish take in from their diet. Methylmercury can accumulate in fish to concentrations many thousands of times greater than mercury levels in the surrounding water.

Women can pass methylmercury on to their fetuses through the placenta, and to infants through breast milk. Excessive exposure to methylmercury may affect the nervous system in children, leading to subtle decreases in learning ability, language skills, attention and/or memory. These effects may occur through adolescence as the nervous system continues to develop. In adults, the most subtle symptoms associated with methylmercury toxicity are numbness or tingling sensations in the hands and feet or around the mouth. Other symptoms at higher levels of exposure could include loss of coordination and vision problems.

The Office of Environmental Health Hazard Assessment is one of six entities within the California Environmental Protection Agency. OEHHA's mission is to protect and enhance public health and the environment by objective scientific evaluation of risks posed by hazardous substances.