

Visit The Website:
www.epa.gov/region09/unitedheckathorn

For More Information, Please Contact:

Jackie Lane
EPA Community Involvement Coordinator
(415) 972-3236
Lane.Jackie@epa.gov

For Site Information, Please Contact:

Rachelle Thompson
EPA Site Manager
(415) 972-3962
Thompson.Rachelle@epa.gov



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United States Environmental Protection Agency, Region 9
75 Hawthorne Street (SFD-6-3)
San Francisco, CA 94105
Attn: Jackie Lane (TASC 10/13)

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**Technical Assistance
Services For Communities**

United Heckathorn Co. Superfund Site Richmond, CA

**Community Factsheet:
DDT and Fish Safety Concerns**

The purpose of this factsheet is to address concerns summarized in the 2012 Technical Assistance Needs Assessment that TASC conducted for community members in Richmond, CA. The main topics covered in this factsheet include what has happened at the site, what are the health effects of DDT and what are the current fish advisories.

**What Cleanup Actions Have Happened at
United Heckathorn?**

The 20-acre United Heckathorn Superfund site is a former pesticide formulation, packaging and shipping facility located on the Lauritzen Channel in the Richmond Inner Harbor of the San Francisco Bay (see Figure 1). The facility operated from the 1940s to the 1960s, during which time pesticides (primarily dichlorodiphenyltrichloroethane, or DDT) were released into site soil and the Lauritzen Channel.

Between 1990 and 1998, the EPA removed 3,300 cubic yards of DDT-contaminated soil from the site and capped the upland area with concrete to prevent erosion. The EPA also dredged 107,000 cubic yards of contaminated sediment containing three tons of DDT from the Lauritzen Channel and the Parr Canal. The EPA continues to monitor fish, mussels, sediment and water at the site, and conducted Five-Year Reviews, which analyze the protectiveness of the cleanup, in 2001, 2006 and 2011. Despite these early cleanup efforts, there is still DDT in the sediment in the Lauritzen Channel above the cleanup goal. EPA is currently conducting a Feasibility Study to evaluate options for further action at the site. For more details, visit www.epa.gov/region09/unitedheckathorn.

This factsheet is provided by the United States Environmental Protection Agency (EPA) Technical Assistance Services for Communities (TASC) program, which is implemented by independent technical and environmental consultants. This factsheet is funded by EPA's TASC program. Its contents do not necessarily reflect the policies, actions, or positions of the EPA.



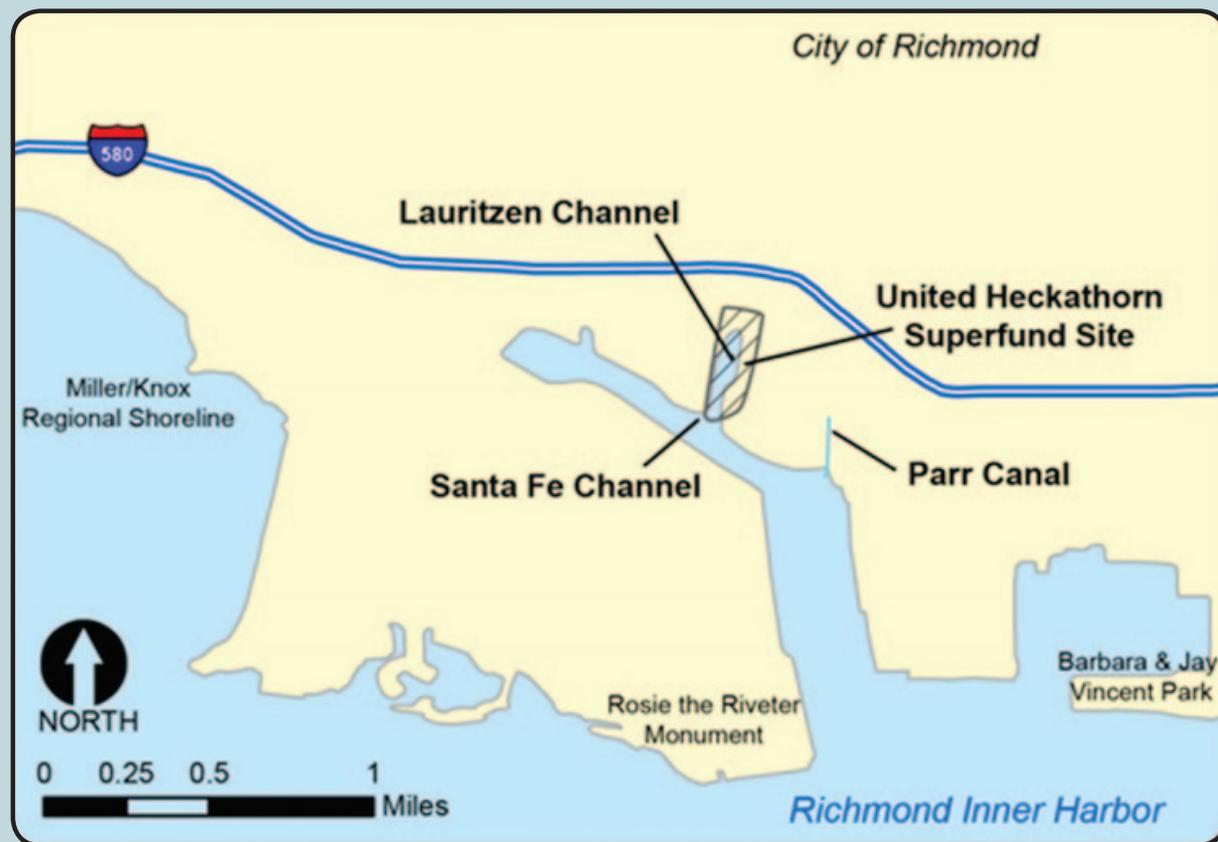


Figure 1. Lauritzen Channel in Richmond, CA and proximity to Richmond parks which are common fishing areas.

What is the Current Fish Advisory for the Lauritzen Channel?

In 2011, OEHHA issued an updated fish advisory for the Lauritzen Channel. The advisory recommends that no one eat fish from the Lauritzen Channel.

Other Fish Advisories in the San Francisco Bay

The broader advisory for the San Francisco Bay including the Richmond Inner Harbor recommends certain limits on fish consumption because of other contaminants (metals and polychlorinated biphenyls) that are unrelated to the United Heckathorn Superfund Site. The advisory identifies fish species that are safe to eat frequently, species that are safe to eat once a week, and species that should not be eaten. The advisory is different for women of childbearing age and for children. For more information about the fish advisory and for fish advisory translations, visit http://oehha.ca.gov/fish/nor_cal/2011SFbay.html.

How Much DDT is in Fish in the Lauritzen Channel?

In 2008, the EPA sampled fish in the Lauritzen Channel. DDT concentrations in Lauritzen Channel fish ranged from 39 to 11,000 micrograms per kilogram ($\mu\text{g}/\text{kg}$). One microgram per kilogram is equal to one pinch of salt in ten tons of potato chips.

Because of high contamination in the Lauritzen Channel, the advisory recommends that no one eat fish from the Lauritzen Channel. The channel is fenced off to restrict public access.

How Much DDT is in Fish Outside of the Lauritzen Channel?

The EPA also sampled fish outside of the Lauritzen Channel in 2008. Average DDT levels in individual fish species in the Santa Fe Channel, Parr Canal and the Inner Richmond Inner Harbor ranged from 38 to 408 $\mu\text{g}/\text{kg}$, 3 to 59 times lower than in the same species in the Lauritzen Channel. To know what the recommended consumption for fish is in these areas, visit http://oehha.ca.gov/fish/nor_cal/2011SFbay.html.

How Does DDT Enter My Body?

DDT can enter your body when you eat contaminated foods or soil particles, drink contaminated water or breathe contaminated air or soil particles. Because DDT leaves the human body via urine, feces or breast milk, breastfeeding infants may also get DDT from mothers who have been exposed. Mothers can also pass DDT on to their infants during pregnancy.

In the water, DDT is taken up by fish. Because of its chemical properties, DDT tends to be highly concentrated in the fatty areas of fish and accumulates up the food chain. As a result, when you eat contaminated fish, the DDT in the fish can collect and accumulate in your body.

What are Health Effects of DDT?

Eating fish contaminated with DDT does not make people sick right away. The more contaminated fish you eat, the more DDT builds up in your body over time. Health problems associated with increased exposure to DDT include effects on the nervous system, such as tremors and seizures. Because DDT is passed to infants during pregnancy and lactation, and children are more susceptible to harmful chemicals due to their lower body weight, women of childbearing age and children are more sensitive to the harmful chemicals and should be especially careful. For more information about DDT and your health, visit <http://www.atsdr.cdc.gov/tfacts35.pdf>.

References

Information contained in this fact sheet is from the National Pesticide Information Center, the Agency for Toxic Substances & Disease Registry and the California Office of Environmental Health Hazard Assessment.