



United Heckathorn Superfund Site

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(Revised October 2002)

Review of United Heckathorn Superfund Site Finds Additional Action Necessary

Five-Year Review Completed

The U.S. Environmental Protection Agency (EPA) reviews Superfund sites to determine whether the remedy at a site is protective of human health and the environment and is functioning as designed. EPA reviewed the United Heckathorn Superfund Site last year, five years after the first cleanup action occurred. The Five-Year Review report

was completed in September 2001 and is available on the EPA Region 9 website: <http://www.epa.gov/region09> and at the site repositories listed on the back page.

The Five-Year Review concluded that part of the remedy is working and part of the remedy is not. The concrete barrier covering most of the site is functioning as designed: it prevents erosion and exposure to contaminated soils. However, the other half of the

remedy, the dredging of Lauritzen Channel and Parr Canal, has not kept the Lauritzen from being contaminated with unacceptable levels of pesticides. Because concentrations of pesticides in the channel are above cleanup goals, EPA will take additional actions at the site. The first step is a new round of studies to determine the source or sources of the contamination. Initial studies took place in February and March of this year.

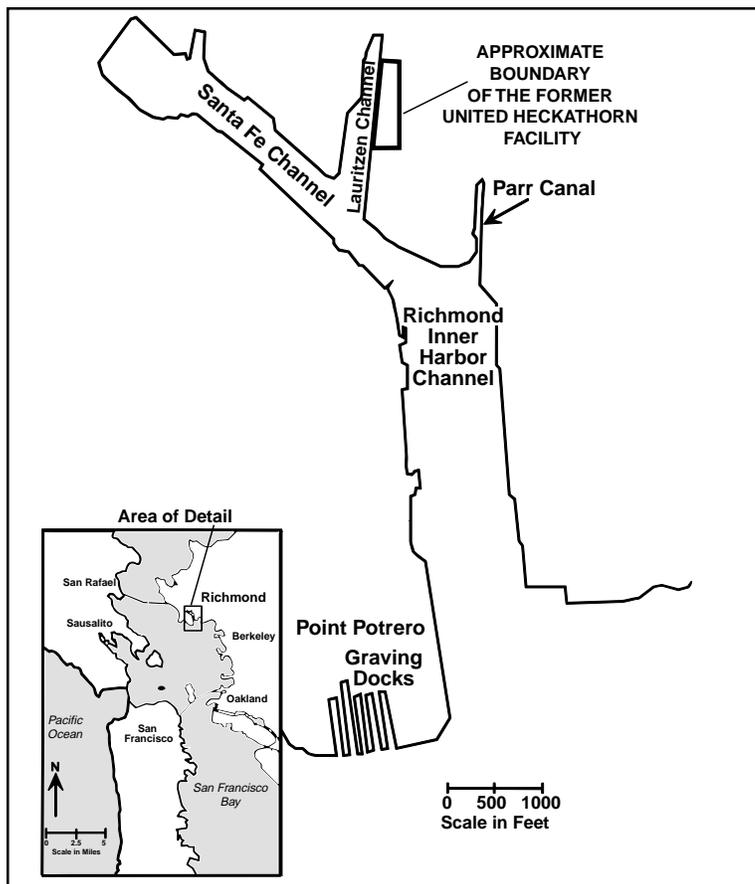


Figure 1: Location of United Heckathorn Superfund Site

Fishing Advisory Still in Effect

In 1994, the California Department of Health Services issued an advisory against consuming any resident bottom fish, such as White Croaker, from Richmond Harbor. Fish in the harbor are exposed to multiple contaminants, including polychlorinated biphenyls (PCBs). Signs prohibiting fishing are posted in the vicinity of Parr Canal and Lauritzen Channel. Please take these signs seriously!

Cleanup Actions

During the 1980s and early '90s, the property owners and EPA removed over 3,500 cubic yards of the most highly contaminated soils from the site and had them disposed in hazardous waste facilities. These removal actions eliminated the "hot spots" before a cleanup plan was developed.

Cleanup of the site proceeded in two steps. The first step was dredging Lauritzen Channel and Parr Canal. The work began in 1996 and was completed in 1997. Approximately 107,000 tons of sediment were removed from the waterways and transported to disposal facilities. After the dredging was completed, samples were taken to confirm that the contaminated sediments had been removed.

The second part of the remedy consisted of capping with a concrete cover the area where the pesticide processing facilities had been located. The cap was installed to prevent erosion of the remaining onsite soils and includes a drainage system to collect surface runoff. Cap construction began in 1998 and was completed in 1999.

Post-Remediation Monitoring

Upon completion of the remedial actions, EPA began a five-year monitoring program. Every year water samples and mussels were collected and analyzed for pesticide levels. Analyzing mussels gives an indication of the amount of pesticides that can bioaccumulate in a living organism.

Table 1 on page 3 shows the pesticide concentrations in water samples. Note the increase in pesticide concentrations the first year after dredging. At the time of the five year review, EPA concluded that cleanup goals had not been achieved. Although the concentrations are still above cleanup goals, they are lower than preremediation levels.

Further Investigations

Before assessing what additional actions to take at the United Heckathorn site, EPA needs to determine the source or sources of the current contamination. Is the current contamination the result of incomplete dredging? Could it be suspended sediments from the dredging that have now settled? Is there another, unidentified source such as an underwater outfall pipe draining into the channel? These questions must be answered before additional actions are taken.

In February and March of this year, water and sediment samples were taken to help answer these questions. In March, a dive team surveyed the left bank of the channel and took samples of sediments and soils from the embankment. EPA received the results from the sediment and soil samples in May. High levels of DDT were found in sediment near the former United Heckathorn Building 1, which is also an area that had been excavated in the '90s. Further investigation around this area will occur this summer.

Site History

The United Heckathorn Superfund site is located in Richmond Harbor in Contra Costa County, California (see Figure 1). The site is in an industrial area dominated by petroleum and shipping terminals. From 1947 to 1966, several operators, including the R.J. Prentiss Company, Heckathorn and Company, United Heckathorn, United Chemetrics, and Chemwest Incorporated (collectively referred to as "United Heckathorn") used the site to formulate and package pesticides. No chemicals were manufactured on site. United Heckathorn would receive technical grade pesticides from chemical manufacturers, grind them in air mills, mix them with other ingredients such as clays or solvents, and package them for final use in liquid or powder formulations. Although many pesticides were handled by United Heckathorn, DDT accounted for approximately 95 percent of its operations.

United Heckathorn went bankrupt and vacated the site in 1966. Between 1966 and 1970 the United Heckathorn buildings were demolished and cleared from the site. In the 1970s, the site was used primarily for bulk storage. In 1981, the Levin Metals Corporation purchased the property and, as stated above, operates a bulk shipping facility at the site.

In 1980, the United Heckathorn site was inspected and sampled by the California Department of Health Services. Chlorinated pesticides and metals were detected in soil samples, and the area was designated a State Superfund site in March 1982. In March 1990, EPA placed the site on its Federal National Priorities List and in August of that year took over the investigation and cleanup of the site.

Table 1: Comparison of total DDT and Dieldrin Remedial Goals with Concentrations in Water Samples Before and After Dredging (Water Concentration in nanograms per liter (ng/L))

Location	Cleanup Goal	Before Dredging (a)	After Remediation Monitoring Results			
			1998 (Yr 1)	1999 (Yr 2)	2000 (Yr 3)	2001 (Yr 4)
Total DDT						
Richmond Inner Harbor	0.59	1	0.65	14.4	2.56	ND ^(b)
Lauritzen/ Mouth	0.59	no sample	42.6	4.61	27.9	2.88
Lauritzen/ End	0.59	50	103	62.3	83.7 ^(c) 1773	142
Santa Fe/ End	0.59	8.6	11	19.2	3.70	2.51
Dieldrin						
Richmond Inner Harbor	0.14	<1	0.65	0.62	1.57	ND
Lauritzen/ Mouth	0.14	no sample	8.18	0.48	8.96	0.46
Lauritzen/ End	0.14	18	18.1	12.5	83 ^(c) 625	8.49
Santa Fe/ End	0.14	1.8	2.47	0.37	2.11	0.46

- (a) Preremediation water concentration is the average of samples collected in October 1991 and February 1992 for the Ecological Risk Assessment
- (b) ND None detected
- (c) Three water samples were collected from each station. One sample from Lauritzen/End sampled much higher than the other two. The average concentration for Lauritzen/End is shown with (the first number) and without (the second, larger number) this anomaly.

Mailing List

EPA is creating a new mailing list of individuals and organizations who wish to be informed and involved in the new developments at United Heckathorn. After completing these new investigations, EPA will seek public input to assist in design and selection of a new remediation plan for the Lauritzen Channel. If you would like to be on our mailing list, please complete and send us the coupon, or leave the information on our Superfund toll-free number 1-800-231-3075, or email the information to EPA at Lane.Jackie@epa.gov.



To Participate/Mailing List Coupon

If you would like to be on our mailing list, please complete and return this coupon to:

Jackie Lane (SFD-3)
 Community Involvement Coordinator
 U.S. EPA, 75 Hawthorne Street
 San Francisco, CA 94105

NAME _____

ADDRESS _____

CITY _____ STATE/ZIP CODE _____ PHONE _____

ORGANIZATION/AFFILIATION _____

COMMENTS _____

United Heckathorn Superfund Site Update

For More Information

If you have questions or comments regarding the United Heckathorn Superfund Site, please contact:

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You may also call EPA's toll-free Superfund hotline and leave a message that will be forwarded to the appropriate EPA staff. The hotline number is **1-800-231-3075**.

Site Repositories

Richmond Library
325 Civic Center
Richmond, CA 94804

Superfund Record Center
95 Hawthorne Street
San Francisco, CA 94105



Printed on 30% Postconsumer



Recycled/Recyclable Paper

U.S. Environmental Protection Agency, Region 9
75 Hawthorne St.
San Francisco, CA 94105
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