



## Delaware Deepening Dredging Up Toxic Sediments

### Fact Sheet #2 — Delaware Deepening Dredging Up Toxic Sediments

The Army Corps of Engineers is proposing to deepen the main navigation channel of the Delaware River from the Ocean to Philadelphia an additional five feet. Dump the Delaware Deepening is a coalition of environmental, civic and health organizations opposed to the project. Many of these organizations have expressed concern that dredging the main channel and using economic loading practices (which allow sediment laden water to overflow from dredge ships into the River) would reintroduce toxics into the water column and the food chain -- toxics which are now held captive on the River floor by the sediments.

Two recent studies suggest that deepening the Delaware River's main channel may resuspend and reintroduce toxics into the Delaware River system.

Rick Greene, Delaware Department of Natural Resources and Environmental Control, conducted an independent review of the data collected for the project. Greene focused on the potential for reintroducing toxic sediments into the River during dredging operations.

Historically the Corps has represented that according to their data levels of toxins in River bottom sediments are not high enough to pose any adverse environmental impact. Using Corps data, Greene has reached very different conclusions.

Greene found that the Corps' data showed that among the areas to be dredged (especially the bends to be widened) there are **toxic "hot spots"**.

According to Greene's studies, the Corps improperly used mean values (averages) to assess the level of toxics in River sediments. The result was that toxic "hot spots" were hidden in the numbers. Toxics found in these areas include : Antimony, Arsenic, Copper, Lead, Mercury and Zinc.

The Main Channel Deepening Project as proposed requires disposing of 22 million cubic yards of dredged disposal sediments at 8 existing sites and 4 new sites (called confined disposal facilities or CDFs). Some of the new sites will be managed for wetland and wildlife habitat.

Dr. Thomas Fikslin with the Delaware River Basin Commission (DRBC) conducted an unrelated study of the overflow from confined dredge disposal areas associated with other dredging projects in the estuary. These

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areas receive sediments and water from the dredge operations. Sediments settle out in the area and the water is returned to the estuary. **According to Dr. Fikslin's findings, these disposal facilities can be a significant source of toxic pollution for the Delaware River.**

Dr. Fikslin analyzed data from two existing dredge spoils disposal facilities -- Money Island and Fort Mifflin. According to his findings, these sites are a significant source of toxic pollution to the Delaware River. Among the toxics discharged to the River during the de-watering process are Cadmium, Lead, Copper, Zinc and total suspended solids. In some instances, the discharge concentration exceeds the DRBC's acute and/or chronic criteria, although the DRBC criteria are for dissolved metal.

According to Dr. Fikslin the two disposal facilities are the eighth largest discharger to the estuary and in the case of lead discharge more lead than all 78 point source dischargers to the estuary combined.

Dr. Fikslin also found that the CDFs are a source of DDE to the River, and a potential source of PCBs that have been documented in the sediments of the estuary. According to Dr. Fikslin: his preliminary evaluation "indicates that CDFs have the potential to impact aquatic life through acute and chronic toxicity, and human health through the bioaccumulation of organic compounds such as PCBs and DDX."

The Corps has responded with studies of their own. While they do not deny Mr. Greene's findings regarding toxic hot spots or the accuracy of Dr. Fikslin's studies they believe that the concerns raised by can addressed with engineering controls.

Contrary to claims by the Army Corps of Engineers toxic contamination resulting from the proposed main channel deepening project is a serious concern. At the very least the Corps must be required to hire an independent consultant to review their studies, findings and conclusions and to conduct additional studies needed to provide a full and honest assessment of the threats this project poses to the Delaware River, its aquatic ecosystems and human populations.