Ottawa River Risk Assessment

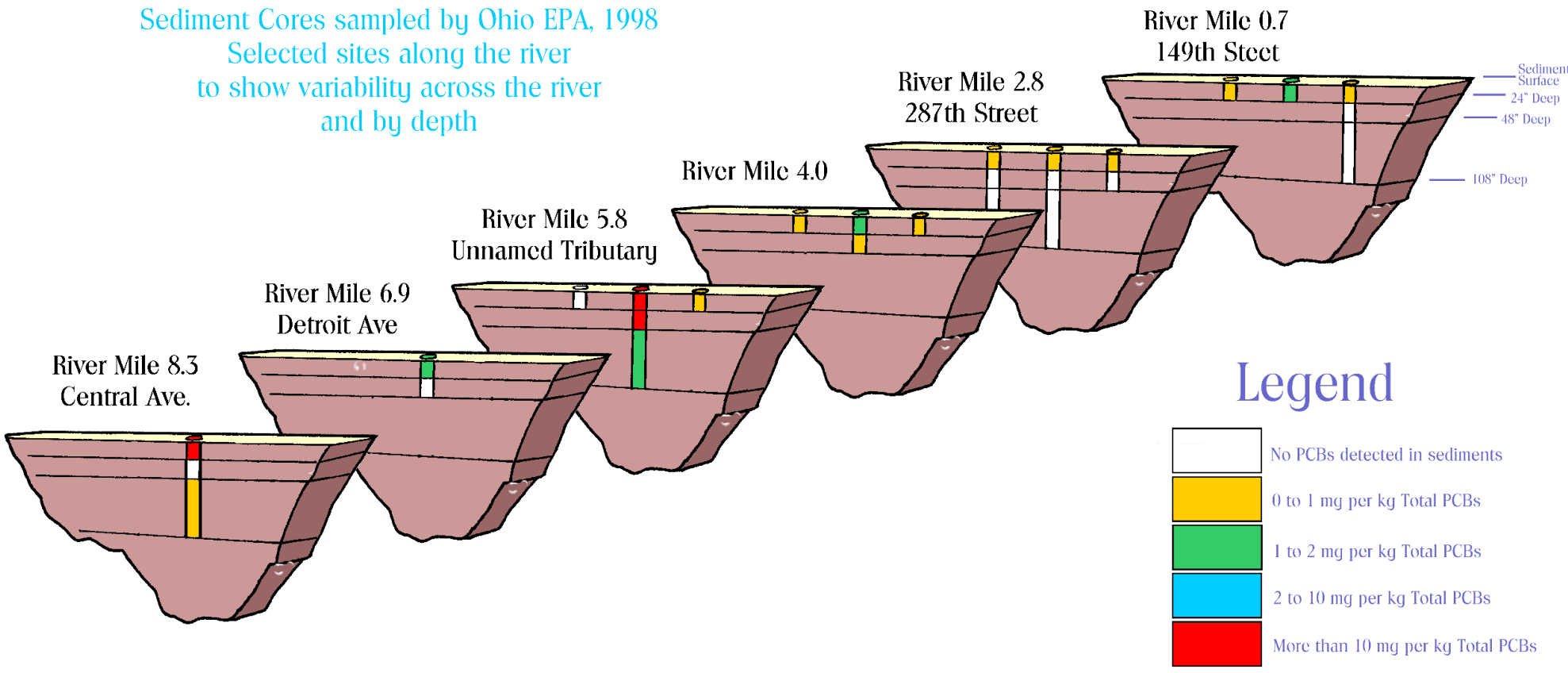
Contaminants have come from many sources along the river. As those sources decrease, our next step is to find out what remediation may be needed for the river sediments themselves. The goals for any remediation should be based on protecting Human and Ecological Health.

What contaminants are in the sediments? Which pose the greatest risks, and where are they located? What parts of the riverbed should have the highest priority for remediation, and to what depth?

The Ottawa River Risk Assessment will help us answer these questions and identify the next steps to restoring the river to fishable and swimmable conditions. The Risk Assessment is funded by a grant from the US EPA Great Lakes National Program Office. It is being conducted by Ohio EPA, TMACOG, and the Ottawa River Remediation Team with Limno-Tech Inc. as the primary contractor.

Ottawa River Sediments

Sediment Cores sampled by Ohio EPA, 1998
Selected sites along the river
to show variability across the river
and by depth



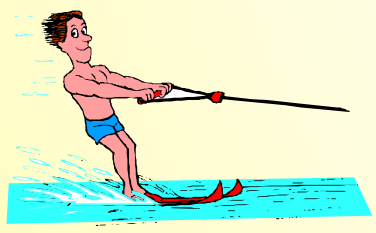
Profiling the Sediments

Over the past decade Ohio EPA and other agencies have conducted extensive sediment sampling from the mouth to the University of Toledo. Tests include PCBs, metals, semi-volatile organics, among others.

Sample collection involved taking sediment cores to give us a three-dimensional picture of contaminants. Where the river was wide enough, three cores were taken at each cross section. Depending on sediment depth, cores went as far down as 108". In 1998, OEPA collected 180 sediment cores.

The Risk Assessment includes consolidating the 1998 data with other years and identifying data gaps. OEPA is filling the gaps this summer/fall.

The graphic above shows Total PCB concentrations at six cross-sections.



What is a Risk Assessment?

Risk Assessment identifies potential adverse effects to humans or ecosystems resulting from exposure to environmental hazards. To protect human and ecological health, remediation should be prioritized for the greatest risk. The key points to understanding risk are hazard and exposure.

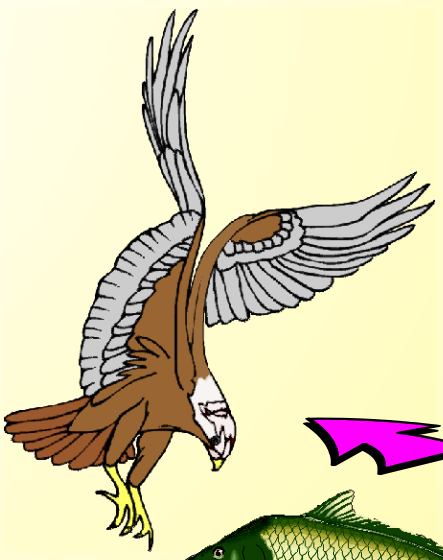
Hazard

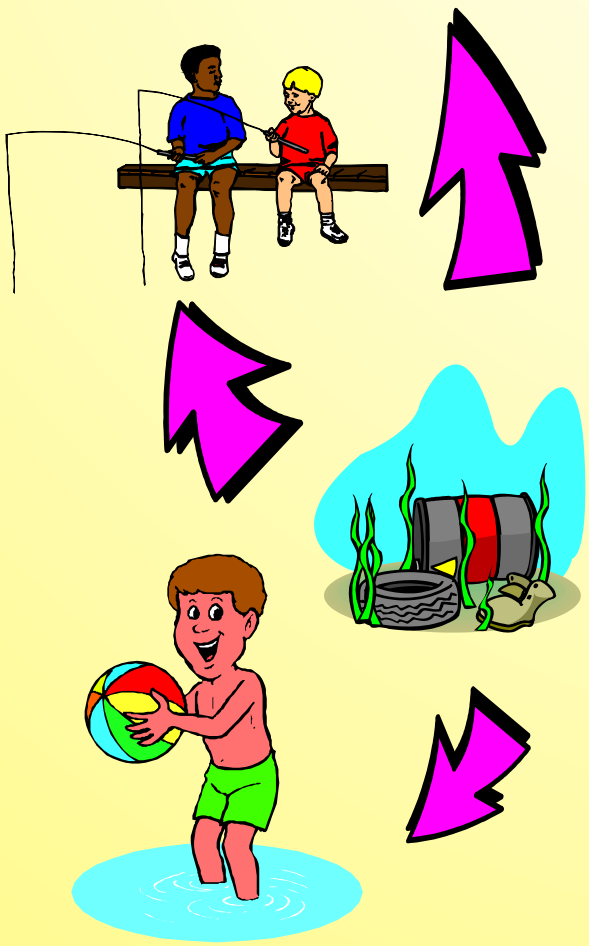
There are thousands of potentially hazardous chemicals that may be found in the environment. Some are toxic, some are carcinogenic, or both. Some chemicals are far more toxic than others, posing greater health risks.

Exposure

- What is the likelihood that a given contaminant will come in contact with humans, fish, insects, or birds? What pathway can the chemical follow?
- Can it harm people by exposure to eyes or skin? Will humans ingest it with river water or mud?
- Will the chemical enter the ecosystem through the food chain, from insect larvæ, to fish, to birds?

The Ottawa River Risk Assessment will account for potential hazard and likely exposure pathways based on extensive sediment data. It will help State, Federal, and Local agencies set priorities for sediment remediation that will protect human and ecological health.





Risk Assessment Timeline

Task	Completion Date
Consolidate data from existing sources and identify gaps	May 2000
Collect data to fill gaps in consolidated database.	Fall 2000
Consolidate new data with existing information.	November 2000
Ecological Risk Assessment	November 2001
Human Health Risk Assessment	November 2001