



**A**s a steward of our nation's coastal and marine environments, NOAA addresses immediate and long-term environmental threats through its Office of Response and Restoration (OR&R). Scientists are on call around-the-clock to provide the U.S. Coast Guard and other emergency responders with critical information to help minimize environmental damage caused by oil and hazardous chemical spills. Environmental experts assess ecosystems compromised by historic or ongoing contamination and work with other organizations to conduct remediation, restoration, and monitoring of critical natural resources.

### Protecting and Restoring the Great Lakes' Coastal and Marine Areas

NOAA trust resources in the Great Lakes region include coastal areas and wetlands that support numerous salmon, trout, and eel fisheries and the Saint Lawrence Estuary, which is home to Beluga whales and other marine mammals. The U.S. and Canada have identified forty-three "areas of concern" in the Great Lakes region with severe environmental degradation. Threats to the Great Lakes include contamination by hazardous substances and invasive species which threaten ecosystems and impede



*Tug Seneca aground in Lake Superior, 2006*

safe transportation along hundreds of miles of navigable waters. The area map on the reverse page shows key response and restoration activities in the past year.

### Emergency Response

During a storm in December 2006, the tug *Seneca*, carrying 1,900 gallons of diesel fuel and 50 gallons of lubricating oil, grounded in three feet of water approximately 21 miles off Grand Marais in Lake Superior. The grounding occurred near a critical habitat of the piping plover, an endangered species. NOAA provided scientific assistance, including weather and trajectory information, to minimize damage if any oil was released into the environment.

### Assessment and Restoration

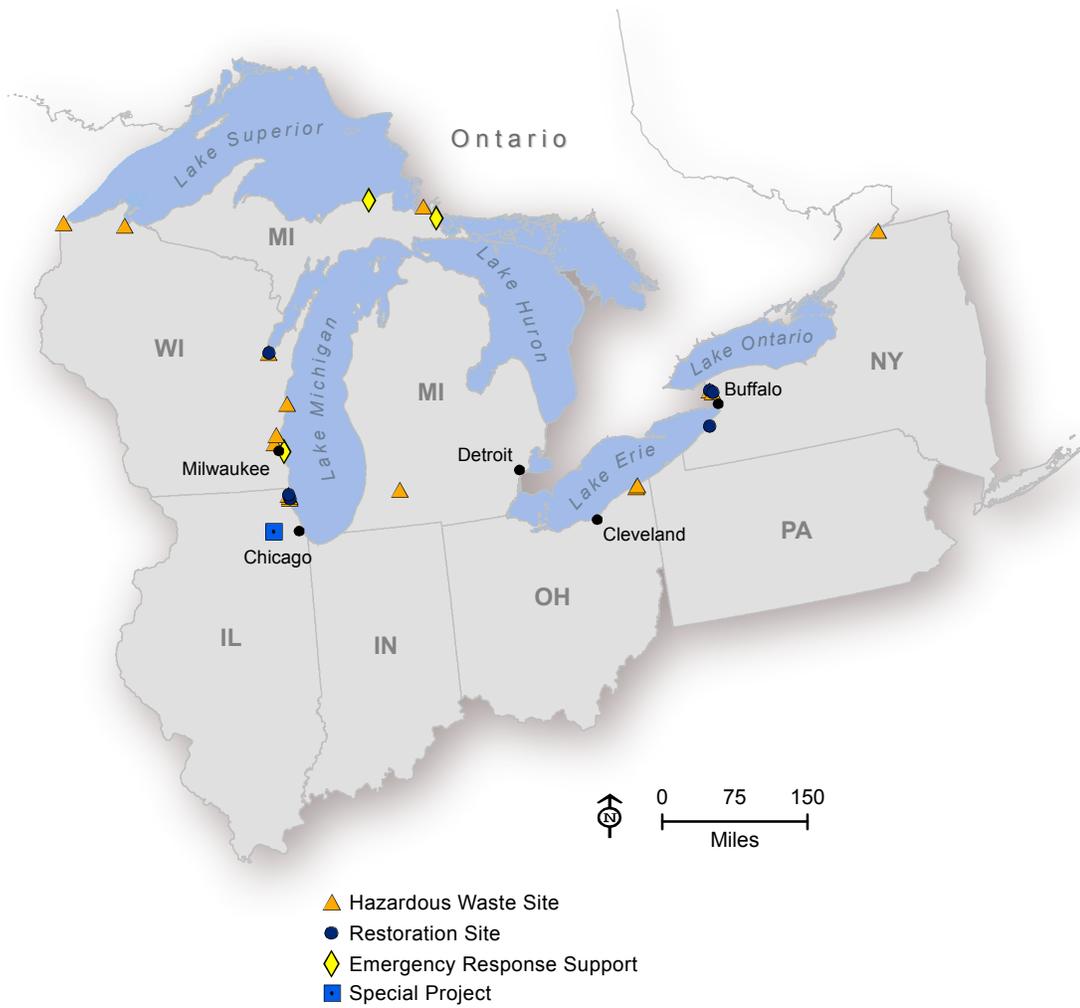
Paper manufacturing operations over many years have resulted in chronic polychlorinated biphenyl (PCB) contamination of the Fox River and Green Bay area. The river and bay provide diverse habitats for a wide variety of fishery resources and opportunities for recreational boating and fishing. Water and sediments are so contaminated that citizens are advised to limit or avoid consumption of fish caught in Fox River or Green Bay. NOAA provided extensive assistance to the U.S. Environmental Protection Agency for effective cleanup and monitoring of contaminated sediment; and participated in planning for thousands of acres of wetland restoration, including 4,788 acres in Wisconsin and 1,500 acres in Michigan.



*Fox River industry, photo courtesy US EPA*

### Research

NOAA collaborates with other federal, state, and local programs to develop innovative approaches to protecting marine and estuarine environments through research and synthesis of information. The Coastal Response Research Center (CRRC) brings together the resources of a research-oriented university and the field expertise of OR&R to conduct and oversee basic and applied research, conduct outreach, and encourage strategic partnerships in spill response, assessment, and restoration.



*NOAA's Office of Response and Restoration—Protecting our Coastal Environment*

For further information about NOAA's Office of Response and Restoration,  
 please call (301) 713-2989 or visit our Web site at  
[response.restoration.noaa.gov](http://response.restoration.noaa.gov)

Banner photo courtesy of EPA, National Park Service, Indiana Dunes National Lakeshore

