



## Technical Services Work Plan

### Ashland Lakefront Site, Ashland, WI



**November 01, 1999**

#### **Introduction**

In this work plan, the Technical Outreach Services for Communities (TOSC) Program outlines a project to provide technical assistance and educational services to citizens of Ashland, Wisconsin, and other interested parties concerning the Ashland Lakefront Site. The site is located on Chequamegon Bay, near 301 Lake Shore Drive, in Ashland. This proposal is submitted pursuant to Ashland-area citizens groups' request that TOSC address environmental and health concerns at the site (see list of groups below).

The TOSC program facilitates community involvement in environmental decision making through educational and technical assistance services, and is funded under a grant from the U.S. Environmental Protection Agency. TOSC is housed in the Great Lakes & Mid-Atlantic Center for Hazardous Substance Research, which comprises three universities: The University of Michigan, Michigan State University and Howard University.

TOSC program services seek to build community understanding of site contamination problems and thereby empower citizens and local government to participate more effectively in the decision making process. In the program's view, *educational opportunity* is key to that empowerment. Working collaboratively with citizens, TOSC faculty design educational workshops that address key questions and concerns. Additionally, TOSC provides technical assistance services, targeted at reviewing documents and providing professional opinion on site cleanup work. TOSC faculty generally teach and conduct research in environmental engineering and sciences, hydrogeology, and toxicology.

TOSC program representatives Dr. Kevin Olmstead, Kirk Riley and Michael Lang met with project stakeholders on July 12 and 13, 1999. During those meetings, the TOSC program was introduced and comments and concerns regarding the Ashland site were discussed. Michael Lang was in Ashland from August 14 to 17, meeting with project stakeholders, collecting more information on the site, and working on an agreement between TOSC and the community.

Separate agreements were signed by the Ashland/Bayfield County League of Women Voters on October 08, 1999, and the Lake Superior Alliance on October 15, 1999, with TOSC to provide technical services for the entire community.

#### **Site History**

The Ashland waterfront site was created by placement of fill materials into Chequamegon Bay, on Lake Superior. The fill consisted of wood slabs, pieces and sawdust from lumber operations, along with household and construction waste, mixed with earthen fill. A manufactured gas plant (MGP) operated on a bluff above the site from 1880s to 1947. The site is approximately 10 acres, with half of the area offshore under water.

Widespread volatile organic compounds (VOC) and semi-volatile organic compounds (SVOC) contamination has been identified on the site, along with high concentrations of polycyclic aromatic hydrocarbons (PAHs) at a "tar dump" at the base of the bluff. Contamination has been identified in the sediments in Lake Superior. The contamination extends into the shallow aquifer at a depth of 26 feet and into a deep aquifer beneath the manufactured gas plant. Contaminated sediments extend to a depth of 12 feet or more.

### **Current Status of Project**

During exploratory work by Northern Environmental Technologies (NET) on the water front for the expansion of the City's waste water treatment plant in 1989, the groundwater and soil were found to be contaminated with creosote and coal tar compounds. The City notified the Wisconsin Department of Natural Resources (WDNR). In 1994, the WDNR commissioned Short Elliot and Henderson (SEH) to characterize the extent of the contamination at the site. The reports that SEH has produced include: Remedial Investigation (July 1994), Sediment Investigation (July 1996), Baseline Human Health Risk Assessment (June 1998), Ecological Risk Assessment (October 1998) and Remediation Options (December 1998).

NSP commissioned Dames & Moore to characterize the extent of the contamination at the site and review and comment on the SEH reports. The reports that Dames and Moore have produced include: Site Investigation (August 1995), Baseline Human Health Risk Assessment (March 1999), Ecological Risk Assessment (March 1999) and Remediation Options (March 1999). On June 7, 1999, WDNR issued comments on the March 1999 D&M report.

Most recently the US EPA has been asked to "score" the site to determine if it should be on the National Priorities List (NPL). WDNR, along with NSP and other stakeholders are building a decision matrix, which will be used to develop the site remediation plan.

### **Citizen Concerns**

During the July 11<sup>th</sup> and 12<sup>th</sup> meetings, TOSC staff members met with various citizens groups, and other persons not affiliated with any group, to discuss how TOSC operates and community interest in working with TOSC. (TOSC also met with representatives of the Wisconsin Department Natural Resources, the City of Ashland and Northern States Power Co.) The groups included the Ashland/Bayfield County League of

Women Voters, Green Onion Resource Center, Alliance for Sustainability, Inland Sea Society, Lake Superior Alliance, and Bay Area North Guard. TOSC also met with representatives of the Great Lakes Indian Fish and Wildlife Commission (GLFWIC), Bad River Band of Chippewa Indians and Red Cliff Band of Chippewa Indians. The Sigurd Olson Institute also attended meetings in its role as assistance provider and educational resource in the cleanup of the Ashland waterfront.

During our discussions, the groups expressed a variety of concerns about the Ashland site. The concerns focused on promoting community understanding of the site investigation, the risks posed by the site (both to public health and the environment) and options for developing and carrying out remedies to the contamination. The following questions/concerns were expressed, and provide a basis for developing educational and technical assistance services that TOSC may provide.

1. What contaminants have been found at the Ashland site and where have they been found? What media (soils, groundwater, sediments) have been affected? How do we know that information (i.e., what site characterization work has been conducted)? How reliable is that information?
2. What ecological and human health impacts (if any) may have resulted (and may continue to result) from the Ashland site? What do the documents say on these issues?
3. How can the community better understand risk assessment, including toxicity assessment and exposure assessment?
4. What do we know about the site from the reports that have been prepared? What do they mean? Can TOSC summarize key documents to help the community understand them?
5. The site has greatly differing geology and affected media. What challenges for cleaning up the Ashland site might they present?
6. TOSC was asked to provide education and discussion services on the different remediation options, including how the technologies/remedies operate, the remedies' applicability to the Ashland site, the benefits and shortfalls of the different remedies, what will be left in the future under each option, and possible alternative options. Are there innovative remedies that should be considered?
7. What are the cleanup standards for the site's primary contaminants? What regulations give rise to the standards? State vs. Federal? Treaty impacts? Conflict of laws? Were the standards chosen properly?
8. Are there similar sites that citizens might examine for lessons in understanding the Ashland site?
9. How will we know if the remedies are working? How long will they take to carry out? What will be the performance standards? What monitoring will take place? If the remediation is not working, what next?

10. What economic and cultural impacts might the site and its cleanup have on the City of Ashland and the surrounding community?
11. What other assistance might be available, for example, from the Great Lakes National Program Office (GLNPO)?
12. Can TOSC build a web site for the dissemination of materials?

### **Proposed Activities**

*The following activities are suggested by TOSC to address the concerns Ashland-area citizens. These are in draft form and will be modified following discussions with the community. In carrying out these activities, TOSC will seek to actively “partner” with other educational resources, in particular Northland College’s Sigurd Olson Environmental Institute.*

#### **1. Conduct a community-wide educational workshop, or series of workshops, which will build citizen understanding of the site characterization work, ecological risk assessment and human health risk assessment.**

Many of the questions that TOSC has received reflect a need to understand the site conditions more completely. Citizens have expressed difficulty understanding the technical documents and want TOSC assistance in “interpreting” them. Citizens have stated that reaching a better understanding will allow them to participate in formulating decisions about the cleanup of the site.

Because of the complexity of the information, the workshop would probably occur in, at a minimum, two meetings.

TOSC would like also to work with community leaders who would actively participate in disseminating knowledge about the Ashland site to others. TOSC would work more closely with these leaders through focused, perhaps daylong workshops. These leaders may include civic, educational and environmental group leaders.

#### **2. Review and comment on technical documents related to the Ashland Lakefront Site.**

TOSC proposes to review documents that the community generally agrees need to have a third-party review conducted and that TOSC has resources to review. TOSC will not review all technical documents, and the extent of TOSC’s comments on any document will depend on the importance of that document to the cleanup process. TOSC proposes to review the following documents prepared by SEH:

Remedial Investigation (July 1994)  
Sediment Investigation (July 1996)

Baseline Human Health Risk Assessment (June 1998)  
Ecological Risk Assessment (October 1998)  
Remediation Options (December 1998).

TOSC may also review the following documents, which were prepared by Dames & Moore:

Site Investigation (August 1995)  
Baseline Human Health Risk Assessment (March 1999)  
Ecological Risk Assessment (March 1999) and  
Remediation Options (March 1999).

### **3. Assist Ashland citizens in staying informed during the development of a site cleanup plan.**

TOSC recognizes the need for citizens to stay informed about the decision making process, including the regulatory framework and opportunities for public comment. TOSC will work closely with the Ashland citizens, the City of Ashland, and WI-DNR in the interest of open communication and information flow.

#### **Additional Activities**

TOSC welcomes suggestions and ideas for additional work and is willing to work with any interested citizens to focus on the issues of greatest concern to the community. TOSC will hold meetings with citizens, as necessary, to present findings of reviews. TOSC will provide written summaries of documents where needed. TOSC will also provide written materials that address key technical issues (e.g., fact sheets on various technologies), while others may be of general interest.

If requested, TOSC will present review findings at public meetings. The meetings will be held jointly by the Ashland-area citizens and the Hazardous Substance Research Center, and advertised and presented to the community.

The GLMAC provides a variety of services through the TOSC program. Consistent with the mission of TOSC and the availability of program resources, additional technical services as requested may be provided. For example, TOSC may speak to area high school science classes, or other youth groups, about the site and site cleanup engineering and sciences. Final decision about additional services shall rest with the TOSC program.



The TOSC program promotes effective citizen involvement in site cleanup projects by providing independent technical expertise to communities. Funded under a U.S. EPA grant, TOSC is housed in the Great Lakes and Mid-Atlantic Center (GLMAC) for Hazardous Substance Research. The GLMAC comprises three leading research universities: The University of Michigan, Michigan State University and Howard University. For more information, contact Kirk Riley at (800) 490-3890 or send e-mail to [tosc@egr.msu.edu](mailto:tosc@egr.msu.edu).