

# Ashland Lakefront Sediment Remediation

## PERMANENT ENGINEERED SHORELINE

### What is a permanent engineered shoreline?

A permanent engineered shoreline is a desirable cleanup option for the near shore sediments. The option could be designed as an extension of the Kreher Park to support the City of Ashland's redevelopment plans by providing additional lakefront shoreline and community gathering spaces and safely contain dredged sediments preventing their re-entry into the waterway.

This option could be enhanced by:

- Using mass removal technologies
- Treating or disposing contaminated sediments
- Pumping and treating groundwater
- Require monitoring to ensure that contaminants are contained

A permanent engineered shoreline is an attractive option considering the unique conditions at the site, including the selected containment remedy for the on-land portion.

Permanent engineered shorelines are:

- Implementable and proven and have been successfully used at 40+ sites in the Great Lakes
- Protective of the environment and can be completed faster and more cost-effectively than any dredging option, with less disruption to the community and fewer risks to safety and human health
- An extension of containment already in place at Kreher Park
- The only option that would allow for planned extension of Kreher Park and which would complement the City of Ashland's redevelopment plans





## Permanent Engineered Shoreline Concepts

By constructing all or part of the outer perimeter of the Permanent Engineered Shoreline as a bulkhead wall, a new vertical shoreline would be established that could be designed to accommodate access and docking by vessels and public boats. Similarly, a boat ramp could be incorporated to augment the Prentice Avenue boat ramp at a similarly accessible point.

The grounds of Kreher Park could be extended outward over the surface of the area as enhanced public space, with options to include walking paths, native plantings, festival grounds and shoreline promenade, thus improving public access to this portion of the Chequamegon Bay shoreline.

Because the existing usable land area at Kreher Park is limited, additional land area gained through the construction could be used to site a community building, or an educational installation.

Some or part of the surface could be built to a lower range of elevations that allow for occasional or frequent inundation by lake water and configured to provide near-shore habitat area and function.

The Permanent Engineered Shoreline could be fashioned to represent a public example of industrial cleanup and environmentally sensitive remedial planning, which would dovetail with the area's sustainability initiatives.

