Shoreline Protection

Shoreline Protection

Credit: WWMT, Will Hawnni
Seawalls deflect waves and cause scouring of the lake bottom.

Scouring of the lake bottom reduces water clarity.

Sediments that are churned up from the lake bottom often contain phosphorus that can cause nuisance algae growth.

Excessive plant control reduces habitat, impairs water quality and is not healthy for the lake.

Seawalls do not provide habitat for fish or other aquatic life.

The nuisance exotic plant Eurasian milfoil often invades disturbed lake bottoms, such as areas along seawalls.
Moving Homes

- Better long-term solution
- Actual move can be completed in a few days
- Cost: $12,000-$100,000 ($12-$16/square foot)
- List of home movers on EGLE and TOMWC websites
  - Michigan.gov/EGLEHighWater
  - https://www.watershedcouncil.org/home-moving.html

Credit: MLive
## Home Movers in Michigan

<table>
<thead>
<tr>
<th>Contractor</th>
<th>City/State</th>
<th>Contact</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>D &amp; B House Movers</td>
<td>Monroe, MI</td>
<td><a href="http://www.dbhousemovers.com">www.dbhousemovers.com</a></td>
<td>734-497-7956</td>
</tr>
<tr>
<td>Deitz House Moving Engineers, Inc.</td>
<td>Muskegon, MI</td>
<td><a href="mailto:deitzmovers@aol.com">deitzmovers@aol.com</a></td>
<td>231-773-8964</td>
</tr>
<tr>
<td>HD House Movers, LLC</td>
<td>Lake City, MI</td>
<td><a href="https://hdmoversllc.com/">https://hdmoversllc.com/</a></td>
<td>231-229-4213</td>
</tr>
<tr>
<td>J &amp; R Building Movers</td>
<td>Petoskey, MI</td>
<td></td>
<td>231-348-9571</td>
</tr>
<tr>
<td>Lykowski Construction Inc.</td>
<td>South Bend, IN</td>
<td><a href="http://www.lykowskiconstruction.com">www.lykowskiconstruction.com</a></td>
<td>574-291-8858</td>
</tr>
<tr>
<td>Rollaway Movers, Inc.</td>
<td>Grand Rapids, MI</td>
<td><a href="http://www.rollawayhousemovers.com">www.rollawayhousemovers.com</a></td>
<td>616-453-0123</td>
</tr>
<tr>
<td>Talaski Building Movers</td>
<td>Bad Axe, MI</td>
<td></td>
<td>989-269-6008</td>
</tr>
</tbody>
</table>
High Waters, High Water Table
Inland High Water Levels
Wastewater from the home enters the septic tank where solid waste or “sludge” settles out. The liquid waste then flows into a distribution system, usually a drainfield where it is dispersed into the soil.
High water table =

- Septic system failure
- Basement flooding
- Foundation damage
- Drinking water well contamination
- Contamination of inland lakes
- And more

Credit: USGS
Signs of Septic System Failure

Wet areas, lush grass, or foul odors around the drain field.

Sinks or toilets backing up or draining slowly, in spite of using plungers and drain cleaner.

Noticeable algae and plant growth or a distinctly colored patch of bottom sediment.
• **Immediately call the local Health Department.**

• Pump out septic tank

• Reduce water use

• Fence off the wet area around the drain field to minimize contact with wastewater
Septic Operation and Maintenance

1. Have tank inspected and pumped regularly
2. Improve or upgrade system
3. Avoid harsh chemicals
4. Install a vegetative buffer
5. Direct rainwater away from drainfield
6. Construct septic system as far away from shoreline as possible
7. Do not apply fertilizer around a drainfield
8. Limit use of garbage disposal
Drinking Water Wells

- Ensure your septic system is functioning properly
- Casing should extend 12 inches above the ground
- Extend well casing if needed
- Install watertight cap on wellhead
- If water reaches or covers top of well casing, assume well is contaminated
- Have well disinfected and tested by health department
Other Concerns

- Electric currents in waters
- Contamination from basement/garage flooding
- Boating hazards