






## Shoreline Activities, Environmental Impacts, and Jurisdictional Authority




There are many different types of shoreline activities that flow from riparian property rights. These activities are regulated by the DNR through its public water (PW), aquatic plan management (APM), and aquatic invasive species (AIS) rules, the local government through its shoreland ordinance, or by both. Generally, the DNR has jurisdiction for activities that are below the ordinary high water level (OHWL) and the local government for activities on land above the OHWL. However, in the near shore area where activities may take place both below and above the OHWL, regulations from both jurisdictions will be involved. Local shoreland ordinances are assumed to be consistent with minimum state standards.



### Jurisdictional Authority



- DNR only – Activities below the OHWL
- DNR and local government – Activities in shoreline area, below and above OHWL
- Local Government only – Activities above the OHWL regulated by the shoreland ordinance (assumed to only meet minimum state standards)

Shoreline Activities	Environmental Impacts	Jurisdictional Authority & Regulation Summary	Local Best Practices (voluntary)
<p><b>Aerating water in winter</b></p> 	<ul style="list-style-type: none"> <li>Helps prevent fish winterkill, improves water quality and protects shorelines from ice damage.</li> <li>Creates safety hazard for lake users and wildlife.</li> <li>Creates water currents that disturb aquatic vegetation and sediment.</li> <li>Increases property owner risk for safety incidents.</li> </ul>	<p><a href="#">DNR permit required.</a> Permit conditions address design, installation and system operation. A \$250 fee and \$500,000 liability insurance required.</p>	<ul style="list-style-type: none"> <li>Educate property owners of risks and DNR permit requirements</li> </ul>
<p><b>Removing aquatic plants</b></p> 	<ul style="list-style-type: none"> <li>Destroys habitat for fish, reptiles, and water fowl needed for nesting, food, and protection from predators.</li> <li>Increases opportunities for invasive species.</li> <li>Increases wave action and shoreline erosion.</li> </ul>	<p>Control of invasive species within an ENTIRE lake requires a permit through DNR's <a href="#">invasive APM program</a>. Control of native emergent, submergent, and floating leaf aquatic vegetation may require a permit through DNR's <a href="#">APM program</a>.</p>	<ul style="list-style-type: none"> <li>Educate property owners about benefits of aquatic vegetation and encourage its protection.</li> </ul>

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<p><b>Constructing boat storage structures over water</b></p> 	<ul style="list-style-type: none"> <li>• Destroys aquatic habitat from propeller action.</li> <li>• Increases opportunities for invasive species.</li> <li>• Encroaches on and privatizes public space.</li> </ul>	<p>Minnesota law prohibits new structures. Structures that existed in 1979 may be repaired and replaced with a <a href="#">DNR permit</a>.</p>	<ul style="list-style-type: none"> <li>• Encourage removal of structures or relocate them on land.</li> </ul>
<p><b>Installing boat Ramps</b></p> 	<ul style="list-style-type: none"> <li>• Destruction of aquatic habitat from ramp and access activity.</li> <li>• Creates opportunities for invasive species introduction.</li> <li>• Accelerates nutrient laden runoff into surface waters.</li> </ul>	<p><a href="#">DNR rules for construction</a>. No permit required if rules are followed.</p> <p>Local shoreland ordinances may allow boat ramps.</p>	<ul style="list-style-type: none"> <li>• Limit on waterbodies with an existing public access ramp.</li> </ul>
<p><b>Installing sand blankets (beaches)</b></p> 	<ul style="list-style-type: none"> <li>• Destruction of aquatic habitat, especially fish spawning areas due to sand movement underwater.</li> <li>• Displaces natural riparian vegetation/habitat causing further erosion problems.</li> <li>• Erosion &amp; sedimentation into water from excavation on slopes.</li> <li>• Creates easy access for geese to enter lawns &amp; riparian areas resulting in goose feces affecting public health and water quality.</li> </ul>	<p><a href="#">DNR rules for installation and maintenance</a>. No permit required if rules are followed and sand does not cover emergent aquatic vegetation.</p> <p>Local shoreland ordinances require a land alteration permit for moving more than 10 cubic yards of material in the shore impact zone (50% of structure setback)</p>	<ul style="list-style-type: none"> <li>• Limit to lakes with sand bottoms.</li> <li>• Limit amount and frequency of sand fill.</li> <li>• Erosion control during construction.</li> </ul>

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<p><b>Grading &amp; removing Ice ridges</b></p> 	<ul style="list-style-type: none"> <li>Increases erosion and nutrient loading into surface waters during grading/removal.</li> <li>Displaces natural vegetation &amp; habitat, limiting species movement to/from the water and along shore (when removing old ice ridges)</li> </ul>	<p><a href="#">DNR rules for grading and site stabilization</a>. No permit required if rules are followed.</p> <p>Local shoreland ordinances require a land alteration permit for moving more than 10 cubic yards of material in the shore impact zone (50% of structure setback)</p>	<ul style="list-style-type: none"> <li>Require grading/removal quickly during first season.</li> <li>Require erosion control.</li> <li>Require restoration of riparian buffer</li> <li>Require permit.</li> </ul>
<p><b>Installing docks &amp; platforms</b></p> 	<ul style="list-style-type: none"> <li>Propellers and jet engines: <ul style="list-style-type: none"> <li>Destroy aquatic habitat</li> <li>Create opportunities for invasive species</li> <li>Stir up sediment and release phosphorous spiking algae growth.</li> </ul> </li> <li>More mooring spaces increases traffic &amp; crowding of surface waters.</li> <li>Increase in boat speeds and wakes causes shoreline erosion.</li> <li>Large docks encroach on and privatizes public space.</li> <li>Excessive facilities affects shoreline character.</li> </ul>	<p><a href="#">DNR rules for design, size and installation</a>. No permit required if rules are followed.</p> <p><u>Number</u> of mooring spaces is unregulated for residential riparian property, <b>but</b>,</p> <p>Local shoreland ordinances regulate number of spaces for non-riparian lots in residential subdivisions, all lots in residential PUDs, and lodging uses (campgrounds, resorts, hotels).</p>	<p>Adopt local surface water regulations under Minn. Statute 86B to regulate and limit:</p> <ul style="list-style-type: none"> <li>The number of mooring spaces for restaurants, bars and other non-lodging commercial uses.</li> <li>Access to dock space for non-riparian owners through access easements and dock rentals by riparian residential property owners.</li> <li>Boat speeds in areas where boat wakes are causing shoreline erosion.</li> </ul>
<p><b>Installing rock riprap and walls</b></p> 	<p><u>Riprap and Walls</u></p> <ul style="list-style-type: none"> <li>Displaces natural vegetation &amp; habitat, limiting species movement to/from the water and along shore.</li> <li>Erosion and nutrient pollution risk during construction.</li> <li>Excessive riprap and walls affect shoreline character.</li> <li>Rocks heat untreated runoff, particularly a problem on small shallow lakes &amp; bays.</li> </ul>	<p><a href="#">DNR rules for installation and maintenance of riprap at and below OHWL</a>. No permit required if rules are followed.</p> <p>Local shoreland ordinances limit riprap height to 3 feet above and 10 feet landward of OHWL.</p>	<ul style="list-style-type: none"> <li>Above OHWL, limit riprap use to demonstrated erosion problem that cannot be controlled through the use of vegetation, slope stabilization, biomat, or similar bioengineered means.</li> <li>Require permit &amp; coordinate riprap permit approval with DNR review and permit approval (in some situations).</li> <li>Require erosion control practices during construction.</li> </ul>

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	<p><u>Retaining walls (at OHWL)</u></p> <ul style="list-style-type: none"> <li>• Cause wave action that scours lake bed creating sterile aquatic environment.</li> <li>• Are barriers to wildlife movement (e.g. turtles, ducks, small mammals)</li> </ul>	<p>Retaining walls at or below OWHL are prohibited by DNR rules except by permit in rare situations.</p>	<ul style="list-style-type: none"> <li>• Develop design standards and require permit for walls above OWHL.</li> </ul>
<p><b>Installing impervious surfaces in near shore areas</b></p> 	<ul style="list-style-type: none"> <li>• Increases erosion, nutrient pollution, and water temperature due to rapid runoff into surface waters.</li> <li>• Reduces infiltration and groundwater recharge.</li> <li>• Displaces natural vegetation &amp; habitat, limiting species movement to/from the water and along shore.</li> <li>• Affects shoreline character.</li> </ul>	<p>Local shoreland ordinances discourage impervious surface in near shore areas, <b>but</b></p> <p>Do not limit walkways, patios, access paths and impervious surface in near shore areas.</p>	<ul style="list-style-type: none"> <li>• Prohibit/limit impervious surface in near shore areas.</li> <li>• Use vegetated swales to slow and infiltrate runoff.</li> </ul>
<p><b>Removing riparian vegetation</b></p> 	<ul style="list-style-type: none"> <li>• Displaces natural vegetation &amp; habitat, limiting species movement to/from the water and along shore.</li> <li>• Increases erosion and nutrient pollution due to rapid runoff into surface waters.</li> <li>• Affects shoreline character.</li> </ul>	<p>Local shoreland ordinances:</p> <ul style="list-style-type: none"> <li>• Prohibit intensive removal or clearcutting in the near shore area.</li> <li>• Allow selective cutting to create views from principal structures and for shore recreation areas.</li> </ul>	<ul style="list-style-type: none"> <li>• Require a riparian buffer defined with specific standards.</li> <li>• Require riparian buffer restoration as condition of permit approvals (building, variance, CUP).</li> <li>• Require a permit for cutting or removal.</li> <li>• Develop measurable specifications for selective removal.</li> </ul>

Shoreline Activities	Environmental Impacts	Jurisdictional Authority & Regulation Summary	Local Best Practices (voluntary)
<p><b>Redeveloping small nonconforming lots with larger homes</b></p> 	<p>Developments often approved with variances that allow:</p> <ul style="list-style-type: none"> <li>• Increased impervious surface.</li> <li>• Decreased OHWL setbacks.</li> <li>• Loss of vegetation.</li> </ul>	<p>Local shoreland ordinances regulate:</p> <ul style="list-style-type: none"> <li>• Impervious surface limits</li> <li>• OHWL setback</li> <li>• Vegetation cutting/removal</li> </ul>	<ul style="list-style-type: none"> <li>• Develop variance review guidance for evaluating environmental impacts along with recommended related and proportional mitigation. Guidance to be used for staff reports and BOA or planning commissions in making variance decisions.</li> </ul>
<p><b>Installing water-oriented accessory structures</b></p> 	<ul style="list-style-type: none"> <li>• Displaces natural vegetation &amp; habitat, limiting species movement to/from the water and along shore</li> <li>• Affects shoreline character.</li> <li>• Increases risk of structure loss due to flooding when constructed in flood prone areas.</li> </ul>	<p>Local shoreland ordinances allow one structure if more than 10 feet from OHWL and no more than 10 feet high and 250 square feet.</p>	<ul style="list-style-type: none"> <li>• Increase minimum setback.</li> <li>• Design standards to reduce visibility.</li> </ul>