

Riprap

The City of Fifty Lakes and the Minnesota Department of Natural Resources (DNR) encourages you to consider planting native vegetation to control shoreline erosion, enhance aesthetic values, and contribute to better water quality in your lake. Both riprap and retaining walls can reduce erosion, but they can be expensive and negatively affect lakes by creating a barrier between upland areas and the shoreline environment. Riprap should only be used where necessary and never to replace a stable, naturally vegetated shoreline.

Riprap Performance Standards:

- The placement of natural rock riprap waterward of the ordinary high water level (OHW) does not require a permit from the city. However, all work done waterward of the OHW shall comply with DNR guidelines.
- The placement of up to 10 cubic yards of riprap landward of the OHW, including associated grading of the shoreland and placement of a fiber blanket, requires a dirt moving permit and shall comply with DNR guidelines. The placement of more than 10 cubic yards of riprap landward of the OHW, including associated grading of the shoreland and placement of a fiber blanket, requires a conditional use permit and shall comply with DNR guidelines.
- Rock riprap landward of the OHW will only be allowed with a permit in situations where bio-engineering practices (vegetation) are not feasible.
- Riprap used for ornamental purposes or for landscaping is prohibited.
- Permits for rock riprap landward of the OHW shall also include requirements to establish vegetative shoreline buffers (landward of the riprap) with a minimum of 10 feet in depth along the shoreline, except for lake or river access areas. Earthen berms can be substituted for vegetative buffers.

What to know:

A row of boulders at the water's edge is not considered natural rock riprap. Rows of stacked boulders function as a retaining wall, and installation would require an individual permit from the DNR. Retaining walls are very damaging to the near-shore environment. Retaining walls cause wave action that scours the lakebed, displacing bottom sediment and creating an extremely sterile environment. The cumulative effect of numerous wall structures on a lake reduces critical habitat for fish and wildlife resources and much of the food chain they depend on. Retaining walls require structural maintenance and are frequently damaged by ice action and undermined by wave action.

Riprap is not maintenance free and does not eliminate ice heaving, but it is easier to return the rocks to their original positions than to repair a wall. Consider planting within the riprap to add color, interest, and diversity. Live cuttings and plant plugs can be planted within riprap to provide additional slope stability and give your shoreline a more natural appearance.

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for more information



City of
Fifty Lakes