

Shoreline Stabilization Application Checklist

This document is intended for guidance in submitting a permit application; please refer to the Shoreline and Streambank Stabilization Rule text for complete rule language and requirements.

- ___ Submit a completed *Shoreline Erosion Protection-Fast Track Permit* application form.
- ___ Submit a completed *Erosion Intensity Scoresheet* for new installations (not required for maintenance of an existing improvement that has not degraded to a natural state).
- ___ Submit a \$10.00 application fee payable to MCWD. **Check only. MCWD cannot accept cash or credit cards.**

___ Provide detailed photographs of the project site, showing the existing condition of the entire shoreline and stabilization zone (20 feet inland of ordinary high water elevation [OHW]). It is recommended to submit photos that correspond to each of the 20' baseline stations with enough perspective to be able to identify the area of the shoreline the photo is showing. If photos are taken at too close of a scale, it is difficult to tell what area of the shoreline is being displayed, and additional photos may be requested.

___ An 11" x 17" **site plan/survey** showing:

- Location of the OHW, existing shoreline, 100-year high water elevation and property lines;
- Elevation contours of the upland within 20 feet of the OHW;
- Location of shoreline stabilization zone and access corridor;
 - Access Corridor** means a corridor equal to 30 percent of the total shoreline length to a maximum of 30 feet.
 - Stabilization Zone** means the area of land paralleling the shoreline or streambank and extending 20 feet inland from all points along the ordinary high-water mark of the shoreline.
- Location of existing trees and shrubs within the shoreline stabilization zone and an indication of whether they are to be removed* or retained;
 - *Clear cutting is prohibited except within the access corridor, and native vegetation shall be preserved outside of the access corridor as much as practicable and, where removed, shall be replaced with other vegetation that is equally effective in retarding runoff and preventing erosion
- Plan view of locations and lineal footage of the proposed shoreline stabilization treatment;
- Location of an upland baseline parallel to the shoreline with stationing (example):
 - Baseline origin and terminus must be referenced to three fixed features;
 - Perpendicular offsets from the baseline to the OHW shall be measured and distances shown on the plan at 20-foot stations;
 - The baseline shall be staked in the field by the applicant and maintained in-place until project completion.

___ A **cross section** detailing the proposed shoreline treatment which includes the following information:

All Types:

- Must be drawn to scale, with the horizontal and vertical scales noted on the drawing;
- Must show the existing bank, ordinary high water and 100-year high water elevations;
- Must show the distance waterward of the treatment placement (hard armoring inert material, such as riprap, shall be placed no more than 5 feet waterward of the OHW);
- Must provide a description of the underlying soil materials that will support the treatment;
- Must show the finished slope. Finished stabilization slopes shall be 3:1 or less where practical and feasible. Finished slopes greater than 2:1 shall be considered retaining walls.

___ **Structural** (example):

- Riprap shall not extend higher than the top of the bank or 2 feet above the 100 year floodplain elevation, whichever is lower;

- Must show the transitional layer design and placement, with material specifications. The design shall incorporate the following:
 - Granular filter at least 6” deep meeting the requirements of Mn/DOT 3601.B;
 - Geotextile filter fabric between the underlying soil material and the granular filter meeting the requirements of Mn/DOT 3733;
 - Riprap material shall be durable stone meeting the size and gradation requirements of Mn/DOT class III or IV riprap (18-24” maximum). Toe boulders shall be at least 50% buried and may be as large as 30 inches in diameter;

- Identify locations and types of plantings to be located between boulders or upland where feasible and practical.

_____ Biological and Bioengineering Stabilization:

- A plant list with common and scientific names, seed mix specifications, quantities and origin of all material. Live plantings incorporated into the shoreline or bank shall be native aquatic and/or native upland vegetation known to occur in the North Central Hardwood Forest eco-region of Minnesota (refer to the Minnesota Department of Natural Resources “Lakescaping for Wildlife and Water Quality” and the Minnesota Pollution Control Agency “Plants for Stormwater Design”);
- Specification of the methods, schedule and party responsible for ensuring establishment and maintenance of the vegetation for the three years following installation or construction. The plan shall include the control of invasive species and replacement of vegetation as necessary;
- If wave barriers are utilized, they shall be located within the 3 foot water depth or less and may not create an obstruction to navigation. Wave barriers shall be removed within 2 years of the installation.

_____ Bioengineering Stabilization:

- Detail the location of all hard armoring inert material, such as riprap, to be utilized.
- Provide a written narrative explaining how the use of hard armoring inert material such as riprap has been minimized to the extent practical and feasible.

_____ Provide a detailed erosion control and site stabilization plan for the proposed project which includes:

- Identify on a plan sheet the proposed access route for all land based application;
- Identify the location of any material stockpile locations;
- Provide a comprehensive stabilization plan for any disturbed areas on site;
- Identify on a plan sheet the floating silt curtain for any work below the normal water level (required for all land-based installations).

Note: Once the permit application has received approval, you will need to provide the following:

- Maintenance Declaration for bioengineering or biological stabilization practices;
- Financial assurance in the form of a Letter of Credit, Performance Bond, or check in the amount of \$100.00 per lineal foot. Templates for the Letter of Credit and Performance Bonds can be found at: <http://www.minnehahacreek.org/templates.php>.

In addition to the information requested above, applications that involve aquatic plantings or removal of aquatic or emergent vegetation (such as water lilies or cattails) may also require a permit from the Department of Natural Resources.