SHORELINE EROSION PROTECTION

ON INLAND LAKES AND STREAMS

Michigan law requires that a permit be applied for and received from the Department of Environmental Quality (DEQ) before conducting certain activities in inland lakes and streams. These activities include dredging, filling, constructing or placing a structure on bottomlands, constructing or reconfiguring a marina, interfering with the natural flow of water, or connecting a ditch or similar waterway to an inland lake or stream. The construction of shoreline protection is a common project that requires a permit from the DEQ.

The type of shoreline protection selected for a site should consider the cause and amount of erosion on-site, and include only the minimal amount of hardening necessary to address the erosion. Shoreline hardening eliminates vegetation and other habitat that is important for fish and wildlife and the filtering of pollutant runoff. The DEQ permitting process ensures that potential negative impacts to the public trust, riparian rights, and the environment are avoided and minimized as much as possible.

This Fact Sheet answers the following questions:

Do I need a permit to control shoreline erosion on my property?

What is bioengineering and why is it a best management practice?

What type of shoreline protection is right for my property?

How do I apply for a permit for shoreline protection?

Michigan Department of Environmental Quality

Water Resources Division

www.Michigan.gov/WRD

Do I need a permit to control shoreline erosion on my property?

A permit is required to install or replace shoreline protection on inland lakes or streams, including:

- *New vertical walls* (e.g., steel, vinyl, or rock). Vertical walls are not recommended because they eliminate fish and wildlife habitat, lower water quality, and can cause erosion on neighboring properties, but they may be justifiable in certain high energy situations where there is limited space.
- *Seawall replacements*. Seawall replacements can be reviewed through an expedited permit process if certain criteria are met, including minimizing the footprint and including toe stone. Maintenance of a previously permitted seawall does not need a permit if it is in place and in kind with no design or materials modification, is only of the seawall facing or sheeting or support piling, and does not encompass more than 25 percent of the length. Seawall cap maintenance or replacement can be done on previously permitted seawalls without a permit.
- *Riprap*. Riprap shoreline protection can be reviewed through an expedited permit process if certain criteria are met including using properly-sized field stone or rock.
- *Bioengineering*. Bioengineering practices, which are considered a preferred best management practice, can be reviewed through expedited permit categories.

What is bioengineering and why is it a best management practice?

Bioengineering uses a combination of native plantings and natural or biodegradable materials to mimic or enhance a natural shoreline. It prevents erosion and restores shorelines, while protecting fish and wildlife habitat and lake health. More information on the types and benefits of bioengineering is available on DEQ's **shoreline protection** Web site.

What type of shoreline protection is right for my property?

The type of shoreline protection should be selected based on site specific factors including the cause and amount of erosion and wave energy occurring on-site, and include only the minimal amount of shoreline hardening necessary.

How do I apply for a permit for shoreline protection?

Applicants should use the DEQ Joint Permit Application:

- Permit applications should be submitted through the MiEnviro online permit application system.
- Information on the permit application process and how to submit an application in MiEnviro is available at **www.Michigan.gov/JointPermit**.
- Expedited permit categories are available that have lower permit application fees and shorter processing time frames.

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