LaPorte County Soil and Water Conservation District

LaPorte Healthy Shores Initiative Application

LAPORTE HEALTHY SHORES INITIATIVE

Applicant Name(s): _____

Mailing Address:

_____

_____

Property Location *(if different from above)*:

_____

_____

Name of Lake: _____

Home Phone: _____ Other Phone: _____

Email: _____

This project was made possible by:

Clean Water Indiana

Check project type(s):

❑ Glacial Stone Re-facing or New Glacial Stone Seawall
Max Grant $1,000

❑ Natural Shoreline Buffer
Max Grant $500

❑ Bioengineered/Joint Planting
Max Grant $1,200

Total Length (in feet) of Project: _____

Total Estimated Project Cost: $ _____

HSI Grant Amount Requested: $ _____

Source of Cost Estimate: _____

(Examples: Contractor, Guidance Manual)

Anticipated Project start date (month/year): _____

Anticipated Project Completion Date (month/year): _____

❑ **Include at least 2 digital or printed photos** of the proposed project site.

Project Description (You may attach additional pages if necessary):

_____

_____

_____

_____

_____

_____

_____

_____

LaPorte Healthy Shorelines Initiative Agreement

In requesting grant assistance from LaPorte County Soil and Water Conservation District, I hereby certify that:

- ❑ I am the owner of the property.
- ❑ I agree to provide at least 25% of the total project cost. I understand that reimbursement will be paid upon completion of the project before the agreed upon completion date – as well as approval of the final report.
- ❑ I understand that permit costs and sales tax are not eligible for reimbursement.
- ❑ I agree to submit a final report with photos and maintain the project for a minimum of ten (10) years and will reimburse funds to LPCoSWCD if I fail to do so.
- ❑ I agree to place a Healthy Shoreline sign (provided by LPCoSWCD) along my lakefront for at least one boating season.
- ❑ I agree that photos of my project may be used for promotional purposes by LaPorte County SWCD in print and electronic media.

Signature of Property Owner: _____

Printed Name of Property Owner: _____Date: _____

Submit Application & Photos to: NMessacar@LaPorteCounty.org
or
LaPorte County SWCD, 2857 W. State Road 2, Suite B, La Porte, IN 46350

Stone Re-Facing of Existing Seawalls

Stone re-facing is simply adding layers of glacial stone in front of an existing seawall (e.g. concrete, steel, railroad ties) to create a more natural shoreline. This minimizes the negative effects of an inflexible vertical seawall.

How does re-facing my seawall help promote healthy lakes?

- Near-vertical seawalls reflect wave energy, which can cause scouring of the lakebed, increased turbidity, and habitat loss for lake organisms. Refacing the seawall with glacial stone provides a "flexible" surface that absorbs wave energy, provides habitat, and creates a more natural-looking shoreline.
- Glacial stones deter muskrats from damaging your shoreline and lawn.

What special considerations are there with re-facing a seawall?

- Stone re-facing of an existing seawall **does not require a permit**, provided it meets the requirements outlined in Indiana Code (see Permitting Information section for more information)

Estimated cost: Approximately $45-50 per linear foot.

Bioengineered Seawalls

"Bioengineering" is a technique that uses structural materials along with plantings to create a natural shoreline that effectively controls erosion. It is effective because the root systems of the plants used are very extensive and work to hold rocks, soils, and other plant roots in place when exposed to erosive wave action. The greatest benefit of using bioengineering materials is long-term stability. More information and photos are available at www.in.gov/legislative/iac/20120404-IR-312120154NRA.xml.pdf

Types of Bioengineering Protection:

1. **Joint plantings** involve the use of native wetland vegetation with glacial stone. The vegetation is installed into the spaces between the rock where they will eventually root and sprout. Once established, the vegetation creates a root mat under the rocks. This technique can be a relatively permanent resolution to recurring erosion from high velocity wind and waves and is a common design along lake shorelines.
2. **Coir logs** made of coconut fiber are placed to stabilize the shoreline, large tree roots and logs may be installed to deflect water flow, and both live stakes and seeds are planted.

How does a bioengineered seawall help promote healthy lakes?

- A well vegetated shoreline improves water quality by filtering nutrients and pollutants, capturing sediment from runoff and preventing shoreline erosion. Less erosion leads to clearer lake water.
- Many of the plant species used in bioengineered shorelines also provide habitat for wildlife and will deter nuisance wildfowl such as Canada Geese and Mute Swans from your lawn.
- Woody plant species, which are often used in bioengineered shorelines, also help maintain the cooler water temperatures essential to some fish and invertebrate species.

What special considerations are there with a bioengineered seawall?

- A permit is required to install a bioengineered seawall.
- Fencing may be installed around the project for 1-2 years to protect young plants from deer or waterfowl.
- Herbaceous plantings should not be mowed or pruned.
- Exotic plants such as Purple Loosestrife should be eradicated from the project area.
- Properly constructed projects will be self-sustaining and require minimal maintenance.
- Bioengineered seawalls are especially effective in protecting steep and highly vulnerable shorelines.

Estimated cost: Approximately $100/linear foot.

"Lakescaping" (Lake-friendly landscaping)

A traditional lawn is not very lake-friendly because it is shallowly rooted, provides little habitat for wildlife, and often receives far too much fertilizer. This can lead to erosion and sedimentation problems, excessive algae and aquatic plant growth, loss of wildlife habitat and an increase in nuisance animals such as Canada Geese.

The essence of lakescaping is to create a buffer zone between the lake and your home that restores the natural ecosystem function of a shoreline. This buffer zone could be a simple unmowed strip of land along the lakeshore, or it could become a more complex landscaping project that might involve shoreline plantings and/or the landward planting of native herbaceous and woody vegetation.

An effective buffer zone should be at least 10-15 feet wide, but larger buffers of 25-50 feet are ideal for protecting the lake from sediment and runoff and for providing wildlife habitat. Additional information on lakescaping, including native plant lists, native plant nurseries, and shoreline planting assistance can be found online on the TWF Healthy Shorelines Initiative website at www.tippecanoewatershed.org.

How does lakescaping help promote healthy lakes?

- Lakescaping provides a native plant buffer that filters pollutants and runoff that degrade water quality and cause excessive algae and aquatic plant growth.
- Buffer zones absorb wave action and prevent shoreline erosion.
- Lakescaping restores the ecosystem function of a natural shoreline and provides habitat for a wide variety of wildlife.
- Native plants create a beautiful landscape that requires minimal maintenance once established, leaving more time for leisure and enjoying the beauty of lakeshore life.

What special considerations are there with lakescaping?

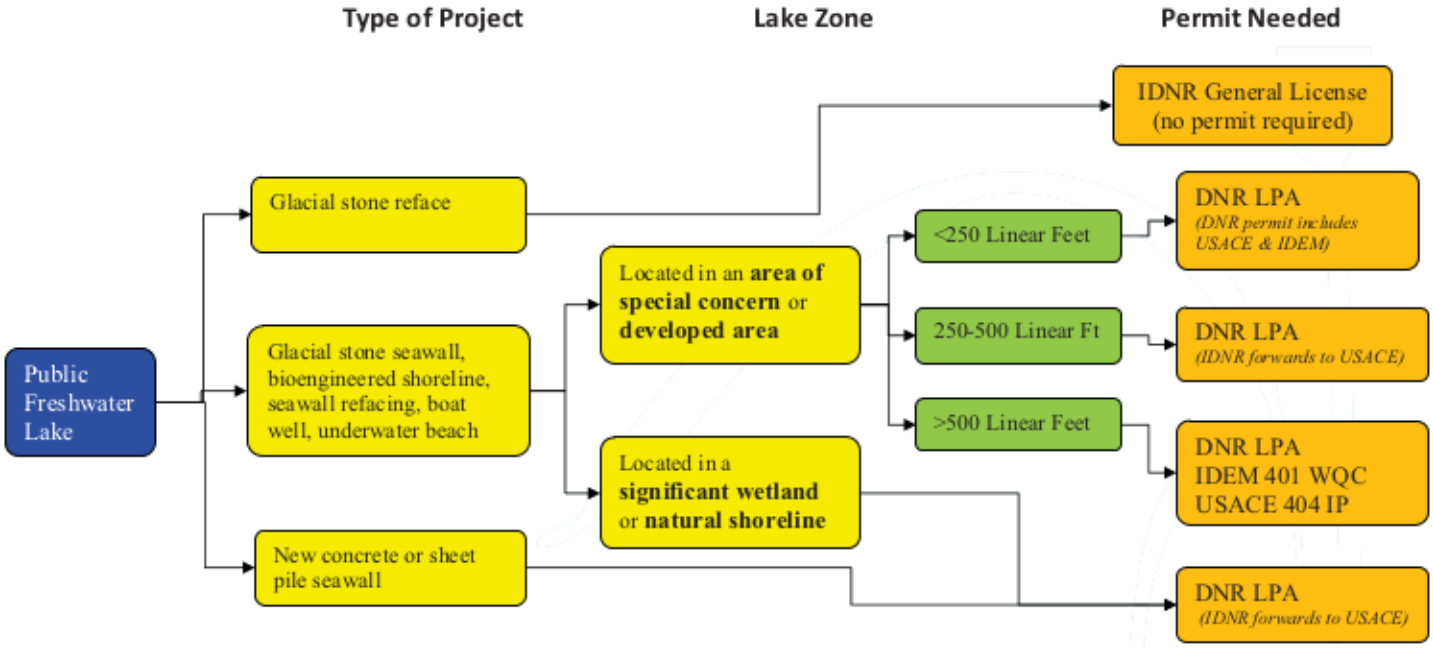
- A permit is not necessary for planting or other landscaping done landward of the shoreline. Alterations to the shoreline itself or lakeward of the shoreline may require a permit and should be discussed with the Indiana Department of Natural Resources.
- Be sure to use plants appropriate to both the soil type and light availability of your property.
- Native plantings, although self-sustaining once established, will need some maintenance during the first growing season.

Estimated cost: Varies widely based on size of project. Depending on the number and type of native plants, they might cost $60 per linear foot.

Permitting Information

Work completed on the shoreline of a public freshwater lake often requires a permit. Landowners are responsible for obtaining all necessary permits and approvals before installation of the project. To assist you in determining whether your project requires a permit, we have included the following flowchart adapted from the Indiana Lakescaping Addendum. To obtain a Lake Preservation Act (LPA) permit application from the Indiana Department of Natural Resources, go to www.in.gov/dnr/water/4953.htm or call the IDNR Department of Water at (317) 232-4160. Permits cost $100 (which is NOT eligible for reimbursement under the grant) and require public notice to be posted. Permits may take several months to be finalized. With this in mind, we encourage you to begin the permit application process as soon as possible.

Permit Guidelines for Shoreline Restoration Activities on Public Freshwater Lakes



IDEM – Indiana Department of Environmental Management LPA – Lake Preservation Act
DNR – Indiana Department of Natural Resources USACE – US Army Corps of Engineers

By Indiana law, the shoreline along your lakefront property is classified into one of four categories. Similar to zoning regulations, these categories determine the type of material that can be used for seawall construction. The following information provides definitions and examples of the categories and lists their seawall requirements according to Indiana Code. The information and photos come from a brochure created by the Indiana Lakes Management Society, Skinner Lake Homeowners Association, and the Indiana Department of Natural Resources.

"Zoning" Categories Explained

Category 4: "Natural shoreline"…
means a continuous section of unaltered shoreline or water line where the distance between lawful permanent structures [seawalls] is at least 250 feet.

Category 3: "Significant wetland"…
means a transitional area between terrestrial and deep-water habitats containing at least one of the following:

(1) At least 2,500 square feet of contiguous, emergent vegetation or rooted vegetation with floating leaves landward or lakeward of the shoreline or water line. The areal extent of the vegetation is independent of ownership.

(2) Adjacent wetland areas designated by a federal or state agency.

(3) The existence of a species listed in the Roster of Indiana Animals and Plants that are Extirpated, Endangered, Threatened, or Rare.

Category 2: "Area of special concern"…
means an area that contains at least one of the following:

(1) An altered shoreline where bulkhead seawalls are at 250 feet apart.

(2) Bogs, fens, muck flats, sand flats, or marl beaches identified by the IDNR Division of Nature Preserves in the Natural Community Classification System.

(3) More than 625 square feet of contiguous emergent vegetation or rooted vegetation with floating leaves.

Category 1: "Developed area"…
means the upland side or sides of a manmade channel or an area that does not contain any of the following:

(1) An area of special concern.

(2) A significant wetland.

(3) A natural shoreline.

If you plan to install a new glacial stone or bioengineered seawall, you will need to obtain a permit as required by Indiana Law:

312 IAC 11-4-2: A written license under IC 14-26-2 and this rule is required for the construction or placement of a seawall within or along the shoreline or water line of a public freshwater lake.

(b) If a new seawall is to be placed in a **significant wetland** or along a **natural shoreline**, the seawall must be comprised of bioengineered materials.

(c) If a new seawall is to be placed in an **area of special concern**, the seawall must be comprised of either or both of the following:

(1) Bioengineered materials.

(2) Glacial stone.

(d) If a new seawall is to be placed in a **developed area**, the seawall must be comprised of one or any combination of the following:

(1) Bioengineered material.

(2) Glacial stone.

(3) Riprap.

(4) Concrete.

(5) Steel sheet piling.

(e) For a new seawall comprised of glacial stone or riprap, the base of the wall must not extend more than 4 feet lakeward of the shoreline or water line.

(f) The lakeward face of the new seawall must be located along the public freshwater lake's shoreline or water line as determined by the department.

(g) The lakeward extent of bioengineered material must be coordinated with the department before filing the license application.

(h) The director or a delegate may not issue a license for the placement of an impermeable material behind or beneath a new seawall.

(i) Filter cloth placed behind or beneath a new seawall must be properly anchored to prevent displacement or flotation.

(j) Erosion from disturbed areas landward of the shoreline or water line must be controlled to prevent its transport into the lake.

If you plan to re-face an existing seawall with glacial stone, you do not need to obtain a permit, provided you comply with the specifications in 312 Indiana Code 11-3-1:

312 IAC 11-3-1 General licenses for qualified temporary structures; dry hydrants; glacial stone refaces:

(e) In order for the placement of glacial stone on the lakeward side of a seawall that is located within or along the waterline or shoreline of a public freshwater lake to qualify, the glacial stone reface must satisfy each of the following:

(1) The seawall reface must be comprised exclusively of glacial stone.

(2) The reface must not extend more than four (4) feet lakeward of the waterline or shoreline at the base of a lawful seawall.

(3) A walk or structural tie must not be constructed on the existing seawall in combination with the glacial stone reface.

(4) An impermeable material must not be placed behind or beneath the glacial stone.

(5) Filter cloth placed behind or beneath the glacial stone reface must be properly anchored to prevent displacement or floatation.

(6) Erosion from disturbed areas landward of the waterline or shoreline must be controlled to prevent its transport into the lake.