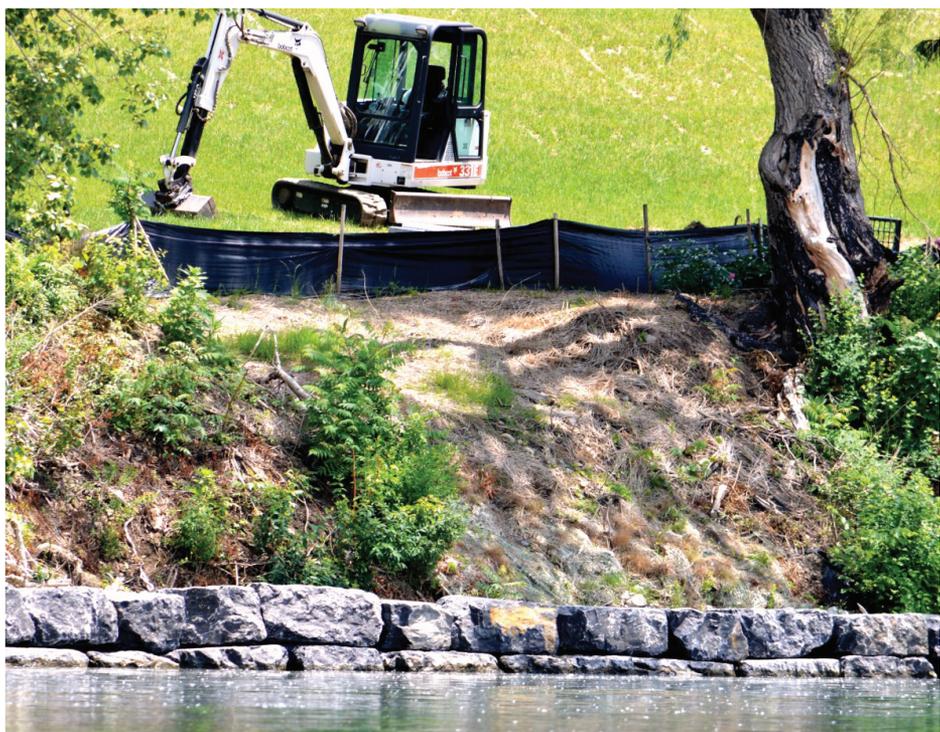


Soil Erosion: Permits and Policies

for the Skaneateles Lake Watershed

A resource for contractors, homeowners, landowners,
municipalities, and other watershed stakeholders.



Cornell Cooperative Extension
Onondaga County

This booklet and other CCE Onondaga programming in the
Skaneateles Lake Watershed is funded by the City of Syracuse Water
Department.

1. What Homeowners Can Do

Homeowners can help protect water quality by implementing practices to prevent soil erosion, water run-off, and minimize negative impacts on Skaneateles Lake. Vegetation buffers are one of the easiest and most inexpensive ways to protect shorelines.

Methods	Site Conditions	Basic idea
Re-Vegetation	Low to moderate erosion	Replant native vegetation and apply mulch to ensure stabilization near shorelines
Live Staking	Slopes with light erosion	Drive the cuttings of woody plants, like willows and dogwood, into soil to cause growth and sprouting; lay temporary mulch between cuttings
Contour Wattling	Slopes with light erosion	Lay live bundles of stems and branches into trenches and cover with soil to cause growth and sprouting
Brush Layering	Badly eroded slopes	Dig holes into the side of the slope and insert plant cuttings at an angle so that roots grow into the slope
Brush Matting	Badly eroded slopes	Create a "mattress" of live plant cuttings on an eroded area to take root and grow
Erosion Control Matting	Moderate slopes along roads or waterways	Lay a sheet of special three-dimensional biodegradable erosion-control fabric to an overexposed slope and plant grass seeds throughout the matting, then cover with soil

Each method described above is low-cost; erosion control matting is the highest cost method listed. Methods are listed in order from most easy to construct; re-vegetation is the easiest method; erosion control matting is the most difficult method.

Brush Layering



2. What Contractors Can Do

Consultants can perform environmental impact statements, ecological surveys and construction monitoring. Effective bluff stabilization will require technical assistance.

Hard approaches should be considered only where erosive forces are severe, and **softer approaches would not be effective structurally.**

	Where it works	Basic idea
Stone Rip-Rap	Stable soil	Lay a layer of stones along a slope face or bank to protect against wave action; base of stone layer is below lakebed and ends above mean high water
Vegetated Rip-Rap	Stable soil	Rip-rap prevents erosion from wave action while the plant roots bind the earth
Vegetated Gabion Mattress	Moderate slopes to resist wave action, ice, and surface erosion	Mattress shaped cage is filled with rocks and branches or cuttings are inserted through rocks into the cage
Vegetated Cribbing	Non-vegetated slopes with a lot of backfill and little wave action	Interlock planks along the bank and plant vegetation between the planks
Slope Grading and Terracing	Steep shoreline with erosion	Grade or terrace the slope to reduce steepness and decrease erosion; plant vegetation to stabilize soil



Vegetated Rip-Rap—The stones prevent erosion along the shoreline from wave action while the vegetation roots into the soil, binding it into place.

3. Do you have regulated waters on your property (wetlands, lakes, waterways, bogs, fens, streams)?

Do you own a wetland by this definition?

U.S. EPA wetland definition: (Section 404 of the Clean Water Act) Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life and saturated soil conditions.

Yes

Do you own a regulated waterway other than a wetland?

Yes

Depending on the activity, you may need a permit by the U.S. Army Corps of Engineers. A permit is required if the proposal is to place any amount of fill in ANY WATERWAY.

Note:* You may be responsible for having a delineation on your property. NYSDEC and U.S. Army Corps of Engineers can provide details.

Yes

All construction (regulated or non-regulated) below 863.27' (Syracuse datum) above sea level

Is your wetland 12.4 acres or greater, or
Does the activity affect a 100 ft. buffer around a wetland, or
Does the activity affect water quality of any waterbody

Yes

Need permit by NYSDEC

(see Joint Application)

Joint Application Form: Agencies

You must apply for and obtain separate Permits/Determinations from each involved agency PRIOR to proceeding with work.

In general, all activities affecting streams, waterways, waterbodies, wetlands, coastal areas and sources of water supply REQUIRE:

APPLICATIONS TO

1. NYS Department of Environmental Conservation

Check all permits that apply:

- | | |
|--|---|
| <input type="checkbox"/> Stream Disturbance | <input type="checkbox"/> Coastal Erosion Management |
| <input type="checkbox"/> Excavation and Fill in Navigable Waters | <input type="checkbox"/> Wild, Scenic and Recreational Rivers |
| <input type="checkbox"/> Docks, Moorings or Platforms | <input type="checkbox"/> Water Supply |
| <input type="checkbox"/> Dams and Impoundment Structures | <input type="checkbox"/> Long Island Well |
| <input type="checkbox"/> 401 Water Quality Certification | <input type="checkbox"/> Aquatic Vegetation Control |
| <input type="checkbox"/> Freshwater Wetlands | <input type="checkbox"/> Aquatic Insect Control |
| <input type="checkbox"/> Tidal Wetlands | <input type="checkbox"/> Fish Control |
| | <input type="checkbox"/> Incidental Take of Endangered/Threatened Species |

2. US Army Corps of Engineers

Check all permits that apply:

- Section 404 Clean Water Act
- Section 10 Rivers and Harbors Act
- Nationwide Permits(s) - Identify Number(s):
- _____
- _____

Preconstruction Notification -

Y / N

3. NYS Office of General Services

Check all permits that apply:

- State Owned Lands Under Water
- Utility Easement (pipelines, conduits, cables, etc.)
- Docks, Moorings or Platforms

4. NYS Department of State

Check if this applies:

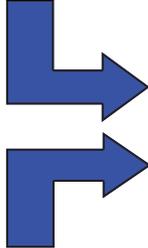
- Coastal Consistency Concurrence

This chart is not all inclusive, please see the full application at:

http://www.dec.ny.gov/docs/permits_ej_operations_pdf/jointapp.pdf

4. What are the Rules and Regulations

Land disturbance activities which expose more than 5000 square feet of soil and are within **environmentally sensitive areas** (see below for definition).



Submit Erosion/Stormwater Control Plan (ESCP)

Submit written description of project to the City of Syracuse Water Department

All permits including building, land disturbance or shoreline

See the brochure, Homeowners, Builders and Contractors: Before you build or disturb the land ...

In general, all construction activities in New York State that disturb or expose one or more acres of soil require:

Sites in sensitive areas under 1 acre may also require coverage:

Apply for: NYSDEC (SPDES) General Permit for Stormwater Discharges from Construction Activity:
www.dec.ny.gov/chemical/43133.html

Submit written description of project to the City of Syracuse Water Department and a copy of the application packet to the City at the same time submittal is made to DEC.

Environmentally sensitive areas are defined as:

Land within 300 feet of the lake or watercourse, or
Areas with slopes greater than 15%, or
Within 300 feet of or within areas defined by the NYDEC as wetlands, or
Soils that are highly erodible

Highly erodible soil maps in Onondaga, Cortland and Cayuga County can be found at:

NRCS office, 441 South Salina Street, Syracuse, NY 13202
OR

Contact your local Soil and Water Conservation District:
To determine soil type and properties, and if conditions are HEL (highly erodible land).

5. How to improve your soil

Test your soils:

It is recommended that soil testing be done by a soil lab. Most soil testing labs will provide recommendations for fertilizer application. Home test kits are available but tend to be less accurate.

Contact your local Cooperative Extension Agency for complete soil analysis:

\$15.00 tests include soil pH, lime deficiency, available phosphorous, exchangeable potassium, exchangeable calcium, and magnesium.

Choose the Right Fertilizer

Fertilizers contain three bold numbers on the package (ex: 16-0-8)

New State Law Restricts Phosphorus

Use

Beginning on January 1, 2012, the law:
Prohibits using phosphorus fertilizers, unless establishing a new lawn or a soil test indicates the need for additional phosphorus

No application: December 1st—April 1st



Nitrogen (N)

Phosphorus (P)

Potassium (K)

Lake Superior Duluth Streams.org

This law does not apply to fertilizer for agriculture or gardens

Restricts the application of lawn fertilizer on paved surfaces or within 20 feet of a water body, except:

When applying the fertilizer with a device that has a spreader guard, deflector shield, or drop spread at least 3 feet from the water

Where a vegetative buffer of at least 10 feet exists

Phosphorus (P)

0.67 or lower

Higher than 0.67, only when establishing a new lawn or if a soil test indicates necessary

Additional information can be found on the

New York Department of **Environmental Conservation**
website: <http://www.dec.ny.gov>

Resources and Contacts for the Skaneateles Watershed

City of Syracuse Department of Water
20 W Genesee St., Skaneateles, NY 13152 || (315) 448-8366 || syrgov.net

Cornell Cooperative Extension of Onondaga County
6505 Collamer Road, East Syracuse, NY 13057
(315) 424-9485 || cceonondaga.org

Onondaga County Soil and Water Conservation District
6680 Onondaga Lake Pkwy, Liverpool, NY 13088
(315) 457-0325 || ocswcd.org

Cayuga County Soil and Water Conservation District
7413 County House Rd, Auburn, NY 13021
(315) 252-4171 || cayugaswcd.org

Cortland County Soil and Water Conservation District
100 Grange Pl # 205, Cortland, NY 13045
(607) 756-5991 || cortlandswcd.org

NYS Department of Environmental Conservation (NYSDEC)
Region 7: Stormwater, Dam Safety, Flood Control
615 Erie Blvd. West, Syracuse, NY 13204 || (315) 426-7500

NYSDEC: Division of Water - (518) 402-8111

NYSDEC: Spill Prevention and Response - (800) 457- 7362

NYSDEC: Compliance (Permits) - (607) 753-3095

This booklet was updated in 2020.

Booklet is available for FREE download/print by visiting
<http://cceonondaga.org/resources> and searching 'soil erosion'.



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