



Department of
Environmental
Conservation



Permitting 101

Tips for Submitting Better Applications

Molly Farrell, NYSDEC Region 6, Division of Permits
Great Lakes 101: Better Permit Applications
December 9, 2022

Topics To Be Covered

1. Human services and ecosystem services
2. DEC considerations when making permitting decisions
3. DEC Jurisdictions
4. General vs. Individual Permits
5. What to include in your application
6. Permitting considerations



Ecologically Speaking, What is a Shoreline?

An area of transition between upland habitats and open water.

Shorelines are not stagnant. Sediment is constantly shifting in the near-shore environment, accruing in one spot and depleting in another.



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Blending Human and Ecological Needs

It is possible to have a natural looking, functional shoreline.

Human needs can be balanced with ecological functions, creating habitat for both people and wildlife.



Do You Need a Permit?

Before beginning any shoreline project, call the DEC to ask if you need a permit.

Our jurisdiction varies from site to site, so it never hurts to give us a call during the early stages of designing a project, even if you are pretty sure you do not need a permit.

Call....Your regional DEC office and ask for the Division of Permits



General Rules Of Thumb

1. If you need heavy equipment, you likely need a permit
2. If you are grading soil or rock, you likely need a permit
3. If you are building something that is supported by pilings larger than 12 inches in diameter, you likely need a permit
4. If you are adding fill of any kind, you likely need a permit
5. If you are in or near a wetland, you likely need a permit.

Before designing a project, give us a call. We can help determine what is jurisdictional and guide you thru the permitting process.



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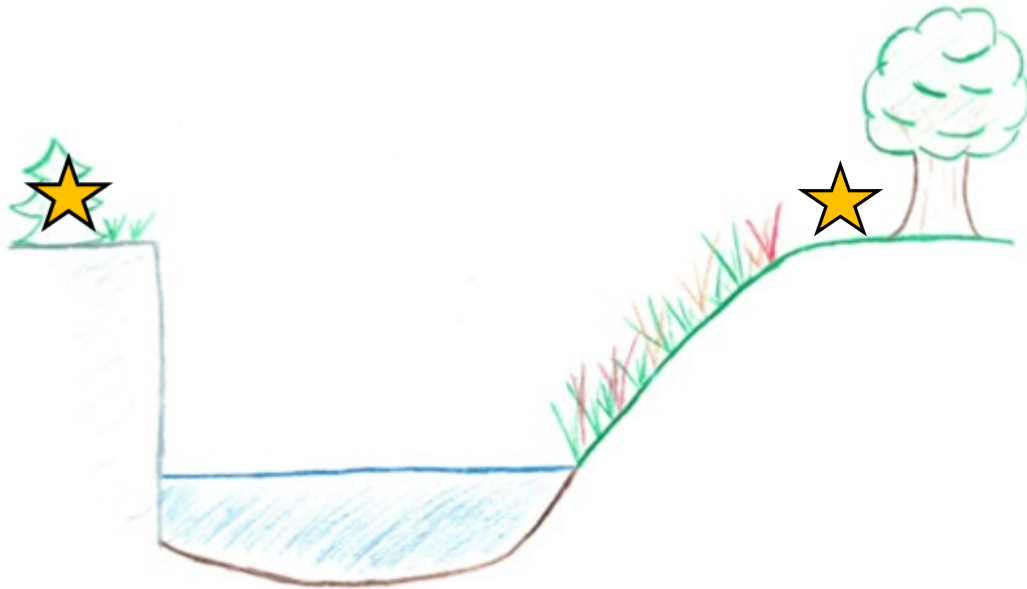
Fundamental Questions

1. Did the applicant give us enough information to begin reviewing their proposal?
2. Is the project jurisdictional?
3. What are the project goals?
4. Is the project **reasonable** and **necessary**?
5. What are the environmental impacts of the project?
6. Does the project meet permitting standards?



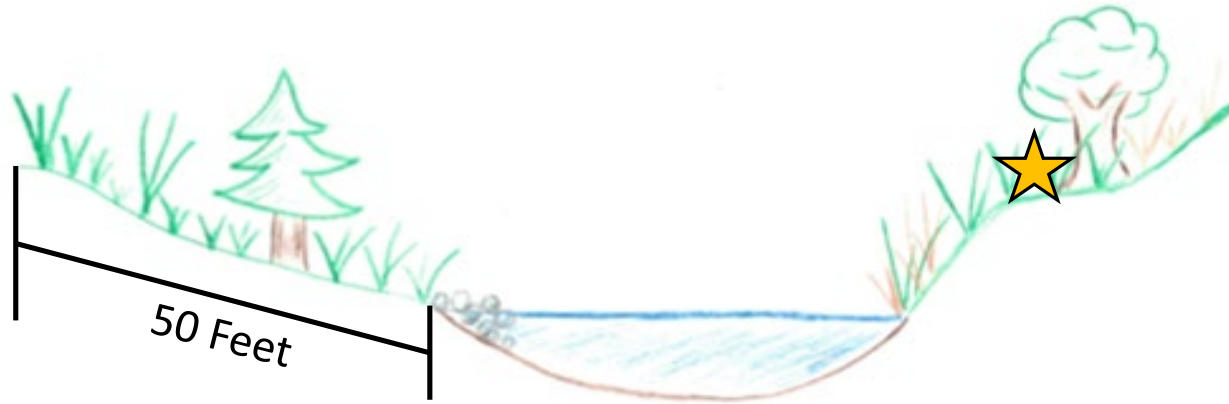
Jurisdictional Line: St. Lawrence River

Our jurisdiction extends to the top of the bank. What that means, varies from site to site.



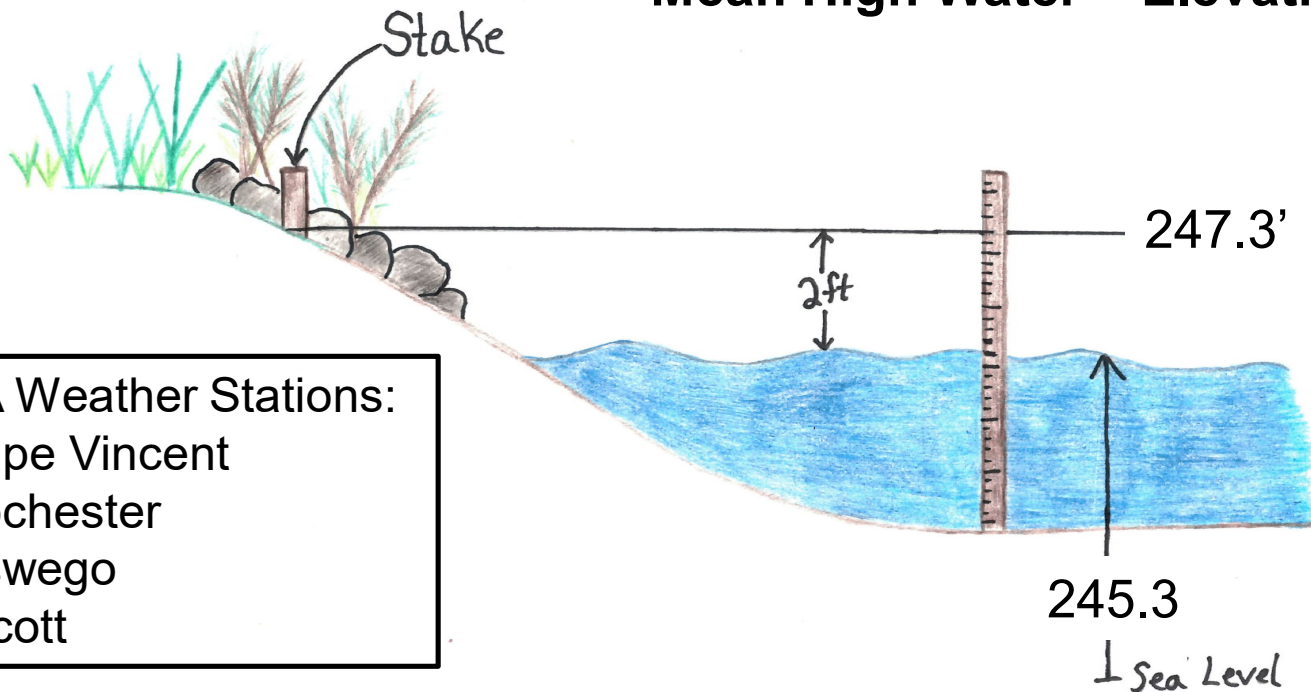
Jurisdictional Line: St. Lawrence River

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Jurisdictional Line: Lake Ontario

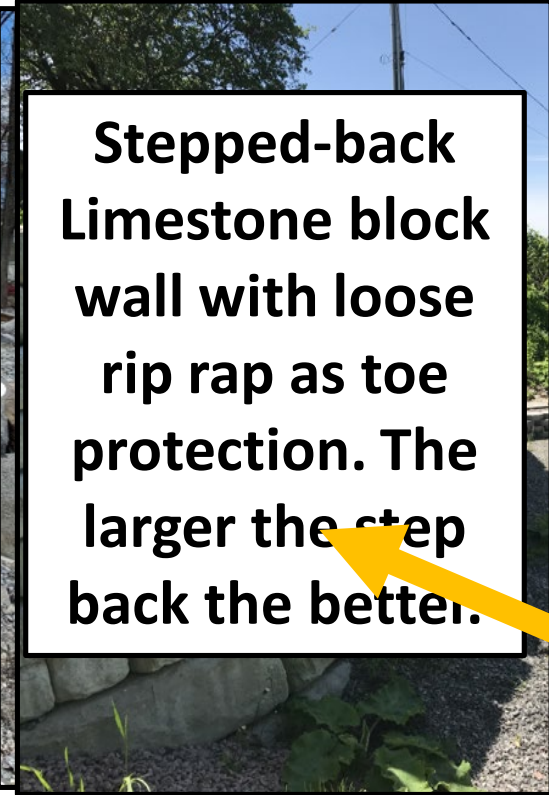
Mean High Water = Elevation 247.3



NOAA Weather Stations:

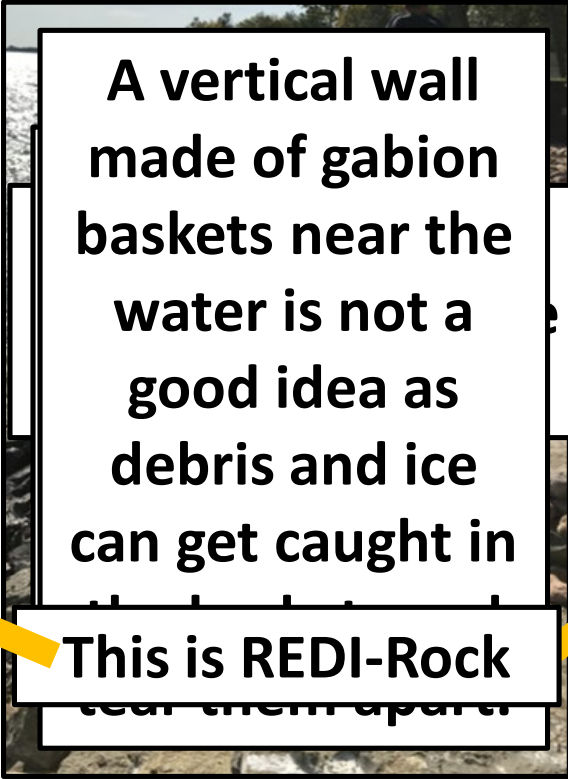
1. Cape Vincent
2. Rochester
3. Oswego
4. Olcott

Traditional Shoreline Management Structures: Terminology



Stepped-back
Limestone block
wall with loose
rip rap as toe
protection. The
larger the step
back the better.

A photograph showing a stepped-back limestone block wall. The wall is constructed from large, irregular limestone blocks. At the base of the wall, there is a layer of loose rip rap (smaller stones). The wall is set back from the shoreline, and there is a clear step-back in its design. A yellow arrow points from this text box to the REDI-Rock structure in the third image.



A vertical wall
made of gabion
baskets near the
water is not a
good idea as
debris and ice
can get caught in

A photograph showing a vertical wall made of gabion baskets. The wall is constructed from wire mesh baskets filled with stones. It is located near the water. A yellow arrow points from this text box to the REDI-Rock structure in the third image.

This is REDI-Rock

A photograph showing a REDI-Rock structure. It is a vertical wall made of gabion baskets, similar to the one in the second image. It is located near the water. A yellow arrow points from this text box to the REDI-Rock structure in the third image.



Permit Types

Permit Types:

1. Water Quality Certifications
2. Protection of Waters
3. Freshwater Wetlands
4. Coastal Erosion Hazard Area (CEHA)

To find more information on different permit types, google “NYS DEC Do I Need A Permit?”.



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401 Water Quality Certifications (WQC)

1. For projects that may result in a discharge into waters of the US.
2. Triggered when a project is authorized by the Army Corps under Section 404.
3. Some projects are covered under blanket WQCs.
4. We can't issue a WQC until we know which Nationwide Permit Army Corps is using.
5. The bottom line....they are complicated.



Streams, rivers, lakes or ponds

**You will need to apply for an Article 15
Protections of Waters permit and a Water
Quality Certification**



Types of Article 15 Permits

1. **Stream Disturbance** – DEC has jurisdiction over the bed and banks of Class AA, A, B, C(T) and C(TS) streams
2. **Excavation and Fill** – if you are placing fill in or removing fill from a navigable water of the US or a wetland that feeds into a navigable water of the US, you will need a permit
3. **Dams and Impoundment Structures**
4. **Docks, Moorings, and Platforms** – DEC may have jurisdiction if your structure is not over State-owned land under the water.



Freshwater Wetlands

You will need to apply for an Article 24 Freshwater Wetlands Permit. Depending on your location, you may also need an Article 15 Protections of Waters permit and a Water Quality Certification



Rules of Thumb for Article 24 Permits

1. There are many activities that are restricted in wetlands.
2. There are significant changes coming to NYS wetland regulations.

One key thing to remember...you cannot build a house or install a septic system in a regulated wetland or the 100' adjacent area of that wetland.



Two Primary Pathways to a Permit

1. General Permits – Cover a fixed list of authorized activities. If all the regulatory agencies agree to the list of authorized activities, the applicant only needs to apply to DEC using a simple form.

2. Individual Permits – The applicant sends the same application to multiple regulatory agencies and cannot begin work until each agency has responded.



Great Lakes Erosion Control General Permit

1. Repair existing structures that were damaged in storm events
2. Place loose rip rap in front of an existing vertical structure
3. When a structure is in jeopardy, you can place new rip rap on up to 100 linear feet of shoreline
4. Remove debris
5. Repair/in-kind replacement of existing docks



Great Lakes Erosion Control General Permit

6. Living shoreline projects along no more than 200 linear feet of shoreline. These projects cannot expand waterward of the existing shoreline.
7. Minor grading of bank slopes

The 2020 Great Lakes Erosion Control Permit is valid until May 7, 2025. Applicants apply to the DEC for authorization to use the GP.



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Rules of Thumb

1. If you are replacing an existing erosion protection structure, the structure must still be functional. If a structure has completely collapsed, you cannot replace it under the GP.
2. Limited ability for waterward expansion. You must work with the shoreline as it is now. When replacing a structure, you need to stay within the footprint of the existing structure
3. No new vertical structures



Why no new vertical structures?

We generally do not like to see new vertical structures on the shoreline unless absolutely necessary. A stepped back wall or loose rip rap is preferred under most circumstances.

If you have a vertical wall that has failed and you would like to replace it, we often will recommend that you consider replacing it with a softer structure or at least a stepped back wall.

BUT WHY?



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Hard Structures Impact Shoreline Dynamics



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And Can Exacerbate Rather Than Reduce Flooding and Erosion



So...What Are My Options?

1. **Site vertical structures as far away from the water as possible.**
2. **Construct your vertical structure outside of our jurisdiction.**

Where are our jurisdiction lines again?

On Lake Ontario, that means landward of the elevation 247.3.

For the St. Lawrence River, that means the top of the bank.



Other Considerations

If you are disturbing more than 1 acre of land, you will need to apply for a Stormwater Construction Permit

1. You apply for this online
2. They are issued in Albany

If you are discharging more than 1,000 gallons per day of wastewater, you will need a State Pollutant Discharge Elimination System (SPDES) permit



Preparing Your Application: The Goal

Any member of the public should be able to request a copy and understand what you are doing and why.

1. Make sure your storyline is clear. Why are you doing this project? What is the goal?
2. Keep your plans simple. They are not construction plans.
3. Include dimensions for all proposed structures
4. Include the location of existing structures and the distance between those structures and any proposed work
5. Include the Ordinary High-Water Mark on all plans



All Applications Need:

1. A complete application form. Be sure to clearly answer all the questions. If you are unsure of something, call us.
2. Clear, current, COLORED site photos that show where the proposed work will occur.
3. Clear overhead plan drawings that show the length of the shoreline, dimensions of all proposed structure and the distance between those structures and existing structures.
4. Clear cross-sectional plan drawings of all proposed structures.
5. A location map.



All Applications for Dredging Also Need:

1. A location map that shows where the dredge spoils will go
2. The cubic yards of fill to be removed
3. The square footage of the dredge area
4. The current depth to the river or lake bottom
5. The proposed depth to the river or lake bottom after dredging



All Wetland Applications Also Need:

1. A DEC delineation. You can call our office and ask for a biologist to come delineate your wetland. There is no fee for the delineation.
2. Plan drawings need to show where the wetland boundary AND the 100' wetland buffer is.
3. There are fees associated with Article 24 wetland permits that must be paid before we can issue the permit. The fees range between \$50 and \$200.



Just to Reiterate.....

Before beginning any shoreline project, call the DEC to ask if you need a permit.

Our jurisdiction varies from site to site, so it never hurts to give us a call during the early stages of designing a project, even if you are pretty sure you do not need a permit.

Call your Regional DEC Office and ask to speak to someone in the Division of Environmental Permits.



Any Questions?



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Thank You

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Coastal Erosion Hazard Area Permitting

Tips for Submitting Better Applications

Beth Geldard, P.E., Western Flood Hub, Division of Water
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Article 34 Coastal Erosion Management Permit

Purpose and intent is to:

- Promote and preserve the natural protective features
- Limit development

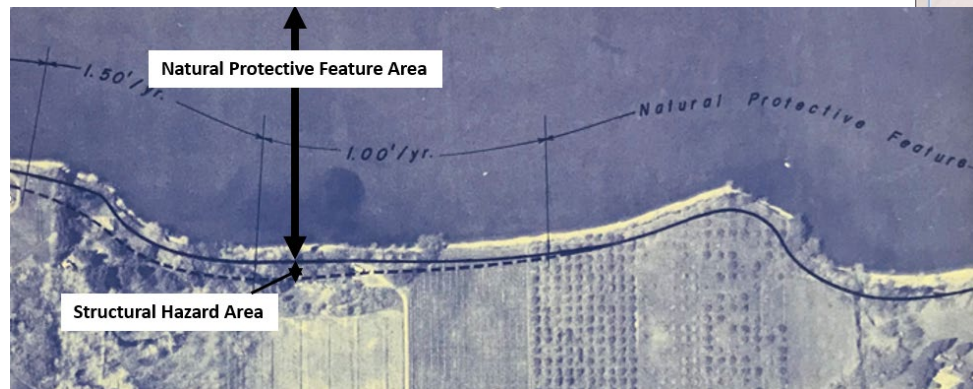
A permit can only be issued provided that the proposed regulated activity:

- Is reasonable and necessary
- Considers alternatives to the proposed activity
- Will not likely cause a measurable increase in erosion
- Prevents or minimizes adverse effects



Coastal Erosion Hazard Areas

- Nearly all activities conducted within a mapped Coastal Erosion Hazard Area require permits from DEC



All Coastal Erosion Hazard Area maps can be downloaded at <https://www.dec.ny.gov/fs/projects/coastal/>



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Erosion Protection Alternatives



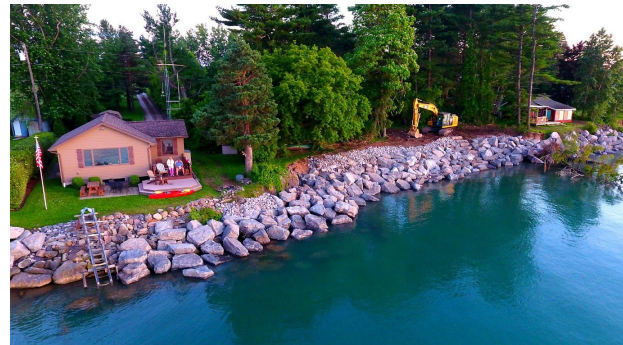
Alternatives



Non-structural erosion protection



Nature-based erosion protection



Hard structural erosion protection



Permit Application Requirements



Information to Include:

- 1) Permit application form (General Permit or Joint Application Form)
- 2) Location map and aerial photo (Google Maps or Bing Maps)
- 3) Stamped and signed survey
- 4) Project description
- 5) Written description of how you meet permit issuance standards
 - a) Why is the project needed?
 - b) Have you considered reasonable alternatives?
 - c) Will your project cause a measurable increase in erosion at the proposed site or at other locations?
- 6) Recent photos of project site



Information to Include (continued):

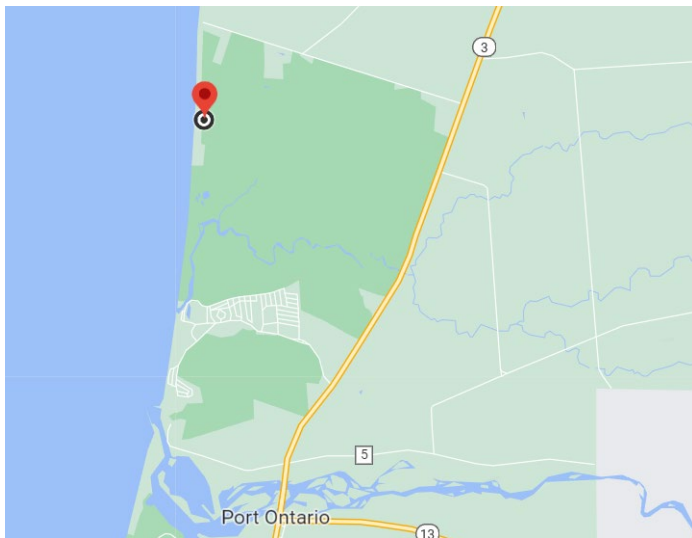
- 7) Description of construction methods and materials
 - Access route
 - Debris/structure removal prior to work commencement
 - Quantity of material to be removed and disposal location
 - Material placement methods
 - Equipment
 - Quantity of material to be used above and below MHWL
- 8) Project plans (site plan and cross-section plan)
- 9) Planting plan
- 10) Long-term maintenance plan



Permit Application Example



Location Map, Aerial Photo, and Survey



Project Description

There is an existing 3 ft high concrete wall that will be replaced with a 11 ft high stone revetment. The remaining top of bluff will be graded and planted with vegetation. The stone revetment will sit slightly closer to the bottom of bluff than the existing concrete wall and all new material placed will be above Mean High Water.



Permit Issuance Standards

Justification: The property has an existing concrete wall that has been overtopped and undermined due to high water and wave action. Prior to 2017, there was 28 ft of land between the house and edge of bluff. The high water has caused substantial erosion and has put the house at risk. The bluff is now near vertical and there is only 14 ft of land between the house and the top edge of bluff. The stone revetment is needed to protect the house from damages caused by erosion.

Alternatives: Due to limited space on the lot and the increased erosion rates, moving the structure landward was not considered a viable alternative. Nature-based solutions that were evaluated included bluff planting, slope grading and a single row of toe stone. These alternatives were evaluated but given the current lake level and recent storm events, these alternatives alone would likely not last long-term. Given the proximity of the house to the eroding edge and the amount of erosion that occurred, a stone revetment along the bottom of bluff with vegetation planted above the stone is the preferred alternative.

Adverse Impacts: The property to the south has an existing stone revetment that the proposed revetment will tie into. The property to the north has an unprotected, natural shoreline. The revetment will only be placed immediately in front of the house and will not extend to the north property boundary to minimize adverse effects to the north adjacent shoreline. The north end section will be sloped into the bluff to further minimize adverse impacts.



Site Photos



Looking to the South



Looking to the South



Looking to the North



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Construction Methods and Materials

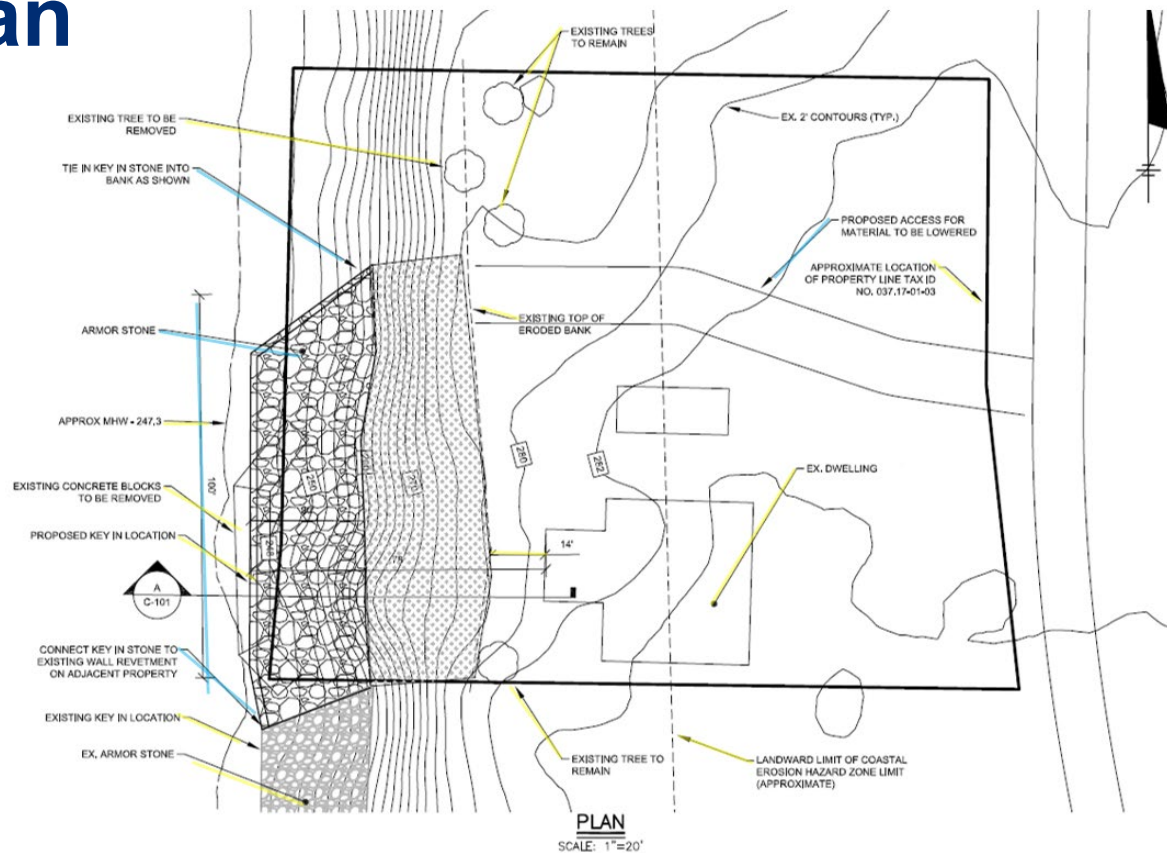
The contractor will access the project area from the applicant's property. The contractor will track an excavator down the bluff slope and will conduct work from the beach. First the existing concrete will be broken into small sections and removed from the shoreline. All concrete debris will be disposed of in an approved upland location. Next, geotextile fabric will be placed on the eroding edge and then the toe stone will be keyed in. The setting stone and armor stone will be installed working from the bottom to the top of slope. The large toe and armor stone will be individually placed by the excavator and not dumped down the bluff slope.

The individual toe stone size will be 3-4 ton and the individual armor stone size will be 2-3 ton. Stone will be irregular in shape and the largest stones will be placed on the surface. The armor stone layer will be a minimum of 36 inches thick. The setting stone will be a mix of sizes ranging from 100 to 500 pounds each. The setting stone layer will be a minimum of 1 to 1.5 ft thick.

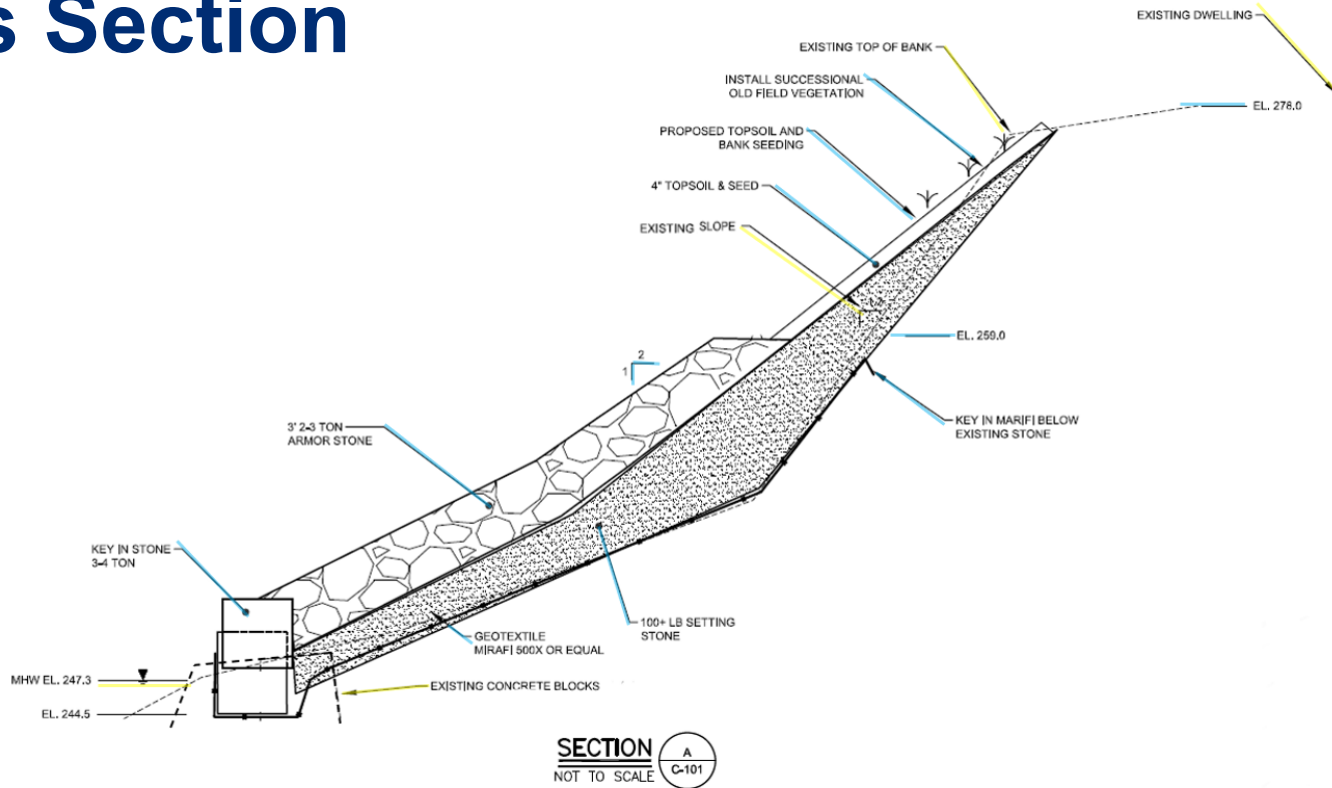
Once the stonework is complete, topsoil will be installed above the armor stone and seeded with a native steep slope mix.



Site Plan



Cross Section



Planting Plan

The bluff above the armor stone will be seeded with a native steep slope mix. The plantings will be maintained by watering and weeding to ensure they become well established. Planting areas that do not survive will be re-vegetated until they become well established.

Mix Composition

- 31.1% *Sorghastrum nutans*, NY4 Ecotype (Indiangrass, NY4 Ecotype)
- 20.0% *Lolium multiflorum* (Annual Ryegrass)
- 14.0% *Andropogon gerardii*, 'Niagara' (Big Bluestem, 'Niagara')
- 10.0% *Elymus canadensis* (Canada Wildrye)
- 7.0% *Elymus virginicus*, Madison-NY Ecotype (Virginia Wildrye, Madison-NY Ecotype)
- 4.0% *Agrostis perennans*, Albany Pine Bush-NY Ecotype (Autumn Bentgrass, Albany Pine Bush-NY Ecotype)
- 4.0% *Panicum virgatum*, 'Shawnee' (Switchgrass, 'Shawnee')
- 3.0% *Panicum clandestinum*, Tioga (Deertongue, Tioga)
- 1.5% *Echinacea purpurea* (Purple Coneflower)
- 1.3% *Chamaecrista fasciculata*, PA Ecotype (Partridge Pea, PA Ecotype)
- 1.2% *Heliopsis helianthoides*, PA Ecotype (Oxeye Sunflower, PA Ecotype)
- 1.0% *Coreopsis lanceolata* (Lanceleaf Coreopsis)
- 1.0% *Rudbeckia hirta* (Blackeyed Susan)
- 0.3% *Monarda fistulosa*, Fort Indiantown Gap-PA Ecotype (Wild Bergamot, Fort Indiantown Gap-PA Ecotype)
- 0.2% *Asclepias syriaca* (Common Milkweed)
- 0.2% *Solidago rugosa*, PA Ecotype (Wrinkleleaf Goldenrod, PA Ecotype)
- 0.1% *Aster lateriflorus* (Calico Aster)
- 0.1% *Aster pilosus*, PA Ecotype (Heath Aster, PA Ecotype)



Long-Term Maintenance Plan

The permittee shall periodically inspect the revetment at least once per month and after large storms. Inspections should look for evidence of moved or slipped material, flanking, scour, exposed fabric, or drainage issues. If stones have shifted the permittee shall contact the engineer and contractor to provide required repairs. The DEC shall be contacted prior to making repairs.



Additional Information May be Required

New York State Department of Environmental Conservation
Notice of Incomplete Application - This is NOT a Permit

Application ID: [REDACTED] Batch Number: [REDACTED]

Facility: [REDACTED] PROPERTY

Applicant: [REDACTED] Owner ID: [REDACTED]

Permits Applied for: 1 - Section 401 - Clean Water Act Water Quality Certification
1 - Article 15 Title 5 Excavation & Fill in Navigable Waters

Project Location: in RICHLAND in OSWEGO COUNTY

Your application for Permit is incomplete. The following items are required:

Dear [REDACTED],

Additional details are needed on your shoreline permit application. Please provide the following:

Plan updates

Overhead Plans

Please update the overhead plans to show the proposed revetment, and how it will tie into the neighbor's rock, and that the northern end will be keyed back into the bluff to prevent waves from flanking the end and creating erosion behind the structure. The pieces of concrete will need to be removed from the shoreline and cannot be buried behind the revetment. Please remove from the plans.

Cross Sectional Plan

Please update the cross section to plan to show the existing bluff face, and the area that will be filled to create a stable slope. Please include a measurement from the toe of the existing slope to the lakeward side of the toe stones. Please indicate the size of rock that will be used for the toe stone, and the rock placed behind it. The pieces of concrete will need to be removed from the shoreline and cannot be buried behind the revetment. Please remove from the plans.

Questions and comments:

How will the shoreline be accessed? If you will be crossing through a neighboring property, please provide landowner consent.

As stated above, the concrete pieces along the shoreline will need to be removed and cannot be buried behind the revetment.

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With the house being close to the eroding bluff DEC strongly recommends hiring a Professional Engineer to design and certify the plans. Your contractor will likely have an engineer they can recommend.

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Permit Authorization

A permit is issued when all issuance standards are met and when all requested information is submitted

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

PERMIT
Under the Environmental Conservation Law (ECL)
Permittee and Facility Information

Permit Issued To: _____ Facility: _____

Facility Location: _____

Facility Principal Reference Point: _____

Authorized Activity: _____ Latitude: _____ Longitude: _____

Permit to install 150 feet of rock rip rap revetment with sand dunes and deep rooted native vegetation along the shore of Lake Erie above the mean-high water level. The proposed revetment will be constructed out of large rock rip rap, underlain by geotextile fabric and a 4 inch drain pipe system. All work to be done in accordance with the plans referenced in Natural Resources Condition No. 1 of this permit.

Permit Authorizations

Coastal Erosion Management - Under Article 34

Permit ID: _____ Effective Date: _____ Expiration Date: _____

New Permit

NYSDEC Approval

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, and all conditions included as part of this permit.

Permit Administrator: ROBERT B CALL, Deputy Permit Administrator
NYSDEC Region 8 Headquarters
6274 E Avon-Lima Rd
Avon, NY 14414

Address: _____

Authorized Signature: _____ Date: _____

Robert B. Call
Deputy Permit Administrator
NYSDEC Region 8 Headquarters
6274 E Avon-Lima Rd
Avon, NY 14414

Page 1 of 6



Thank You

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