



Department of
Environmental
Conservation

Lake Erie Permitting

Tips for Submitting Better Applications

David Denk, DEC Region 9, Regional Permit Administrator
Great Lakes 101: Better Permit Applications
December 5, 2022

DEC Lake Erie Permitting Options

- General Permit 0-20-004
“Great Lakes Erosion Control General Permit”
- Individual Permit
- Emergency Authorization

General Permit 0-20-004

- Repair and in-kind replacement of existing functional erosion protection structures. The repair or replacement of these structures must not extend waterward of the pre-existing footprint, except where the Department accepts an applicant's demonstration that minor deviations are necessary for the stability of the structure. Increase in structure height may be approved if appropriate. Replacement structures must be adequately sized and designed.
- **New sloped rock revetments ($\leq 100'$) along CEHA bluffs or non-CEHA areas that are necessary for the protection of existing and functional dwellings. Slope and height limits apply.**
- Repair or reconstruction of existing public roads, bridges, utilities and other public infrastructure.
- **Emergency repair of functional concrete or steel vertical breakwalls along bluffs and non-CEHA areas by installation of sheet piling immediately adjacent to lakeward vertical face.**



General Permit 0-20-004 (Continued)

- Minor grading back of scarped bluffs to a stable slope. Project must include approved vegetation plan. Toe stone for stabilization may be allowed in specific circumstances.
- Repair or reconstruction of docks, catwalks and floats that were functional on April 1, 2017.
- Stabilization of existing functional storm-damaged dwellings, decks and walkways with temporary bracing and pilings.
- Repair or reconstruction of elevated walk ways or stairways necessary for water access. The stairs and landings shall be a maximum of 4 feet in width and constructed a minimum of 18 inches above grade over the dune/bluff face.
- Removal of channel blockages on Lake Ontario tributaries.
- Removal of debris by use of motorized equipment.

General Permit Application

Submit the following:

- Completed GP-0-20-004 Application
- Submit current photos (historic photos helpful in some cases)
- Project Plans (both a site plan and cross section)
- **If project meets General Permit criteria**, no need to send application to USACE of NYSDOS

GP-0-20-004 Application Form

Great Lakes Erosion Control General Permit (GP-0-20-004)

Application for General Permit and NYSDEC Authorization



Applicant Information:

Name of Applicant: _____			
Applicant must be __ property owner, __ lessee or __ operator (check which applies).			
Email: _____		Phone: _____	
Mailing Address: Street: _____	City: _____	State: _____	Zip: _____
Name of Property Owner (if different from applicant): _____			
Email: _____		Phone: _____	
Mailing Address: Street: _____	City: _____	State: _____	Zip: _____
Application Contact or Contractor (if applicable): _____			
Email: _____		Phone: _____	
Mailing Address: Street: _____	City: _____	State: _____	Zip: _____
Project Location (where work will be done): _____			
Town (where property taxes paid): _____		County: _____	
Street Address: _____	City: _____	State: NY	Zip: _____

Project Description (short description of work proposed and overall dimensions):

☒ Required Attachments (check each box to indicate that the attachment is provided with this form):

- | | |
|--|--|
| <input type="checkbox"/> Project Location Map (with location marked) | <input type="checkbox"/> Project Drawing – Overhead view (plan view) |
| <input type="checkbox"/> Project Site Photos | <input type="checkbox"/> Project Drawing – Side view (Cross-section) |

☒ Type of Project (check all that apply – continued on page 2):

- ☐ Repair and in-kind replacement of existing functional erosion protection structures. The repair or replacement of these structures must not extend waterward of the pre-existing footprint, except where the Department accepts an applicant's demonstration that minor deviations are necessary for the stability of the structure. Increase in structure height may be approved if appropriate. Replacement structures must be adequately sized and designed.
- ☐ New stone necessary for the stabilization of existing, functional, vertical erosion protection structures along CEHA bluffs or non-CEHA areas. Stone must be sized appropriately for the location. Minor deviations in the original structure's configuration, including those due to changes in materials, construction techniques, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement are authorized. **Not applicable along beach or dune CEHA shorelines.**
- ☐ New sloped rock revetment structures along CEHA bluffs or non-CEHA areas, that are necessary for the emergency stabilization of existing and functional dwellings. Structures must be no greater than 100 feet in length and 10 feet in height and must be sloped no steeper than 1.5H to 1V and not extend waterward of the existing shoreline, or the shoreline as it existed immediately prior to a discrete erosion event no more than 6 months prior to the time of permit

application. Stone must be sized appropriately and placed as close to the toe of the slope as possible. **Not applicable along beach or dune CEHA shorelines.**

- ☐ Emergency repair of functional concrete or steel vertical breakwalls along bluffs or non-CEHA areas, by installation of sheet piling immediately adjacent to the existing lakeward vertical face. **Not applicable along beach or dune CEHA shorelines.**
- ☐ Repair or in-kind reconstruction of existing public roads, bridges, utilities and other public infrastructure.
- ☐ Stabilization of existing functional storm-damaged dwellings, decks and walkways with temporary bracing and pilings.
- ☐ Repair or in-kind reconstruction of elevated walkways or stairways necessary for water access. The stairs and landings shall be a maximum of 4 feet in width and constructed a minimum of 18 inches above grade over the dune/bluff face.
- ☐ Minor grading back of the top of scarped bluffs landward to a stable slope. Project must include an approved vegetation plan. Toe stone for stabilization may be allowed in specific circumstances.
- ☐ Removal of debris by use of motorized equipment.
- ☐ Temporary installation of sandbags or other Department approved temporary flood protection devices located above MHW. Sandbags may be conventional or large (cubic yard or larger).
- ☐ Removal of channel blockages of streams tributary to Lake Ontario and Lake Erie blocked by shoreline sediment or other natural-deposited materials. Application must include a disposal plan.
- ☐ Repair or in-kind reconstruction of previously authorized docks, catwalks and floats located within CEHA areas and within DEC regulated freshwater wetlands or wetland adjacent areas.
- ☐ New shoreline stabilization measures that consist predominately of vegetative stabilization or bioengineering techniques. Structures must be no greater than 200 feet in length and 10 feet in height and must be sloped no steeper than 1.5H to 1V and not extend waterward of the existing shoreline, or the shoreline as it existed immediately prior to a discrete erosion event no more than 6 months prior to the time of permit application. Stone or other materials must be sized appropriately and placed as close to the toe of the slope as possible.

Certification:

I hereby apply for authorization under General Permit GP-0-20-004. I have read General Permit GP-0-20-004 and will construct and operate this project in strict compliance with the approved plans and terms and conditions of this permit as well as the Environmental Conservation Law and applicable regulations. I understand that any false or inaccurate statements made in the application for this permit are punishable as a Class A misdemeanor. As a condition of this permit, I accept full legal responsibility for all damage, direct or indirect, of whatever nature, and by whomsoever suffered, arising out of the project described herein and agree to indemnify and save harmless the state from suits, actions, damages, and costs of every name and description resulting from this project. I hereby consent to Agency inspection of the project site and adjacent areas on the property. Agency staff may enter the property without notice between 7:00 am and 7:00 pm, Monday - Friday. Inspection may occur without the owner, applicant or agent present. If the property is posted with "keep out" signs or fenced with an unlocked gate, Agency staff may still enter the property. Agency staff may take measurements, analyze site physical characteristics, take soil and vegetation samples, sketch and photograph the site. I understand that failure to give this consent may result in denial of the permit(s) sought by this application.

_____ Applicant Signature	_____ Date	_____ Property Owner Signature (if different than applicant)	_____ Date
DEPARTMENT AUTHORIZATION (FOR AGENCY USE ONLY):			
AUTHORIZED NYSDEC SIGNATURE and DATE:		PRINT NAME and TITLE:	
DEC NO: _____			
PERMIT EFFECTIVE DATE: _____		PERMIT EXPIRATION DATE: _____	
AUTHORIZATION TYPE(S): ___ 6 NYCRR 608; Article 15, Title 5 Protection of Water ___ 6 NYCRR 608; Water Quality Certification		___ 6 NYCRR 663; Article 24, Freshwater Wetlands ___ 6 NYCRR 505; Coast Erosion Management	
ATTACHMENTS: ___ General Permit ___ Project Drawings		DISTRIBUTION: cc: ___ Regional DEP ___ Regional BEH	
___ Location Map ___ Other: _____		___ COE ___ CEHA	



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Individual Permit

When are they required?

Most new erosion protection structures including:

- Rip Rap/Revetments
- Stepped Block Walls
- Fill within regulated wetlands
- Structures with CEHA

What is required?

Joint Application

Environmental Assessment Form

Photos

Project Plans

Copies are submitted by the applicant to:

- NYSDEC
- NYSDOS
- USACE

Emergency Authorization

- Issued in accordance with 6 NYCRR Part 621.12 (UPA)
- Must be immediate threat to life, health, general welfare, property, or natural resources.
- Department can only authorize the minimum work necessary to overcome the emergency
- Authorization valid for 30 days
- What is needed?

Article 15 Protection of Waters Permit

All Protection of Waters Permit applications must meet the following standards:

- the proposal is reasonable and necessary;
- the proposal will not endanger the health, safety or welfare of the people of the State of New York; and
- the proposal will not cause unreasonable, uncontrolled or unnecessary damage to the natural resources of the State, including soil, forests, water, fish, shellfish, crustaceans and aquatic and land-related environment.

Article 24 Wetlands and Part 182 Endangered/Threatened Species Permitting

- Avoid and minimize impacts
- Evaluate alternatives
- Demonstrate this is the only practicable alternative
- Mitigate unavoidable impacts



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
Great Lakes 101: Better Permit Applications
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Article 34 Coastal Erosion Management Permit

Purpose and intent is to:

- Promote and preserve the natural protective features
- Limit development

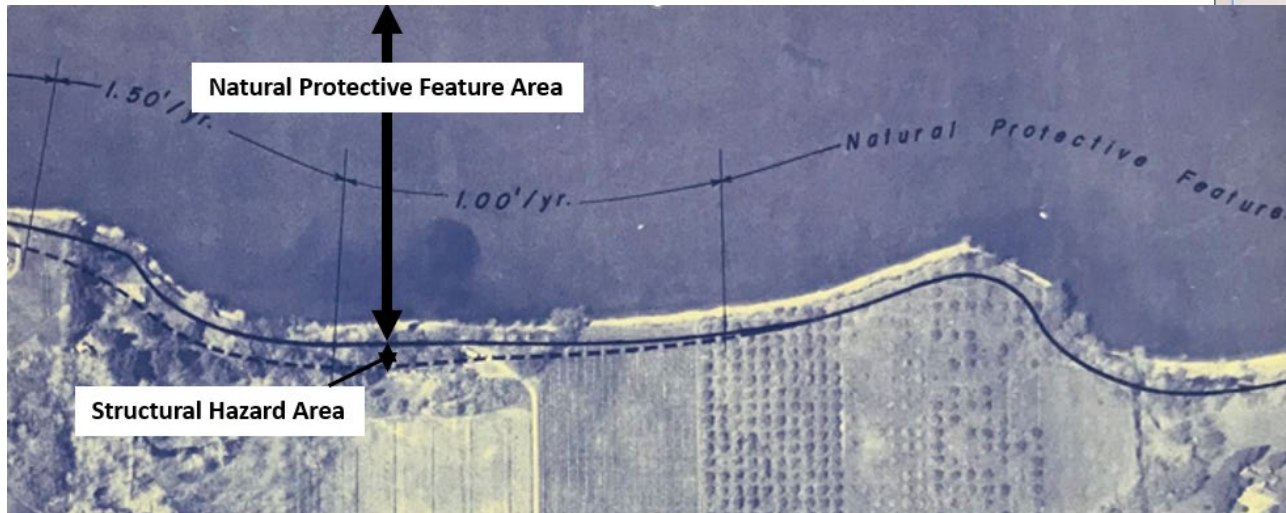
A permit can only be issued provided that the proposed regulated activity:

- 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/>

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



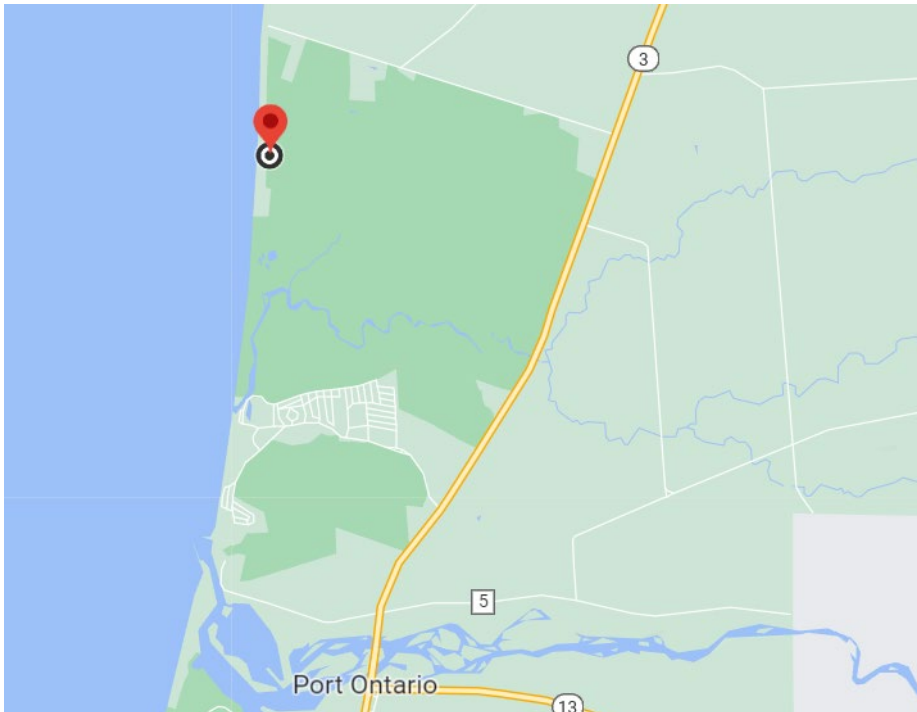
Information to Include (continued):

- 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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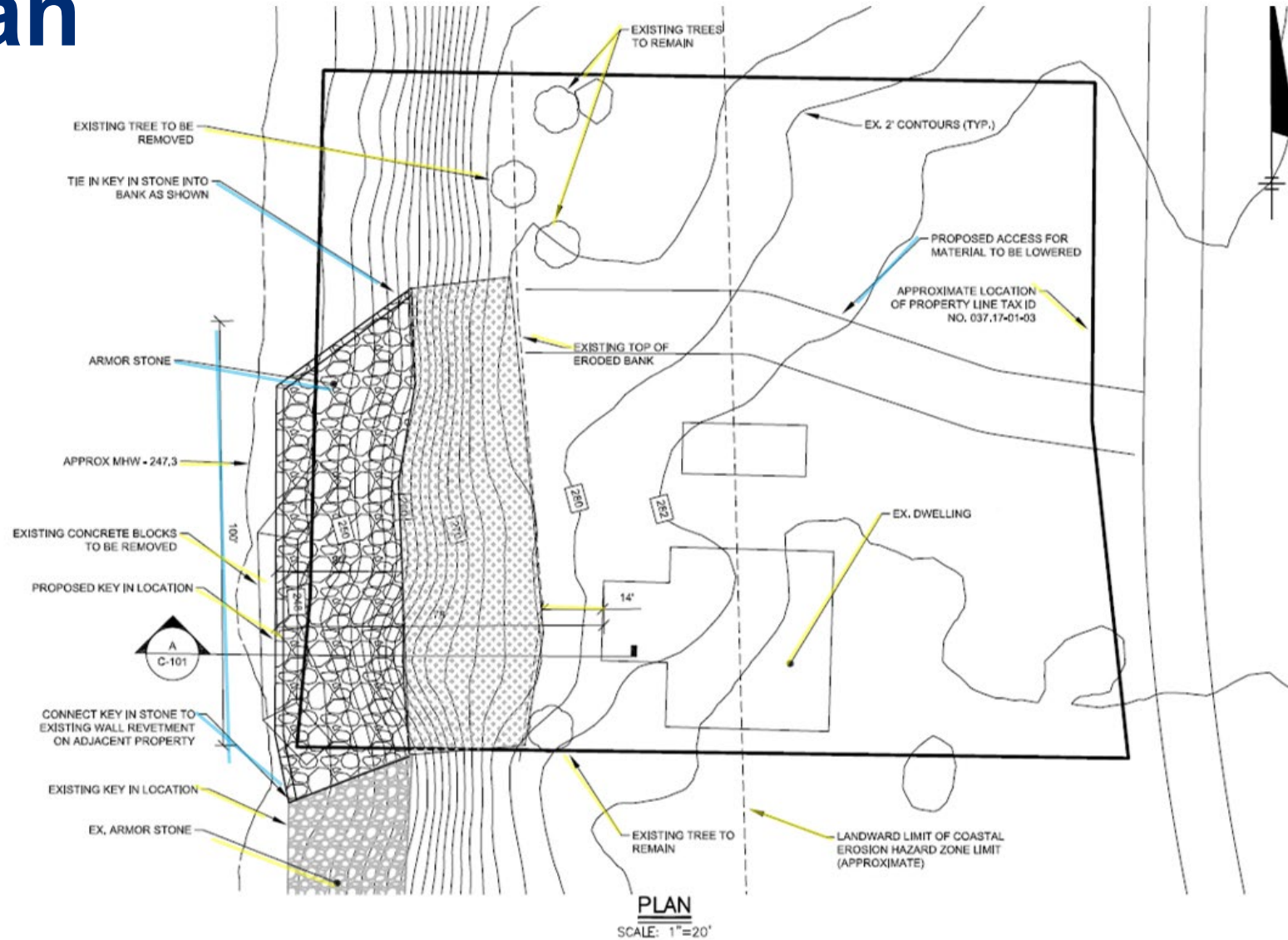
Construction Methods and Materials

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.

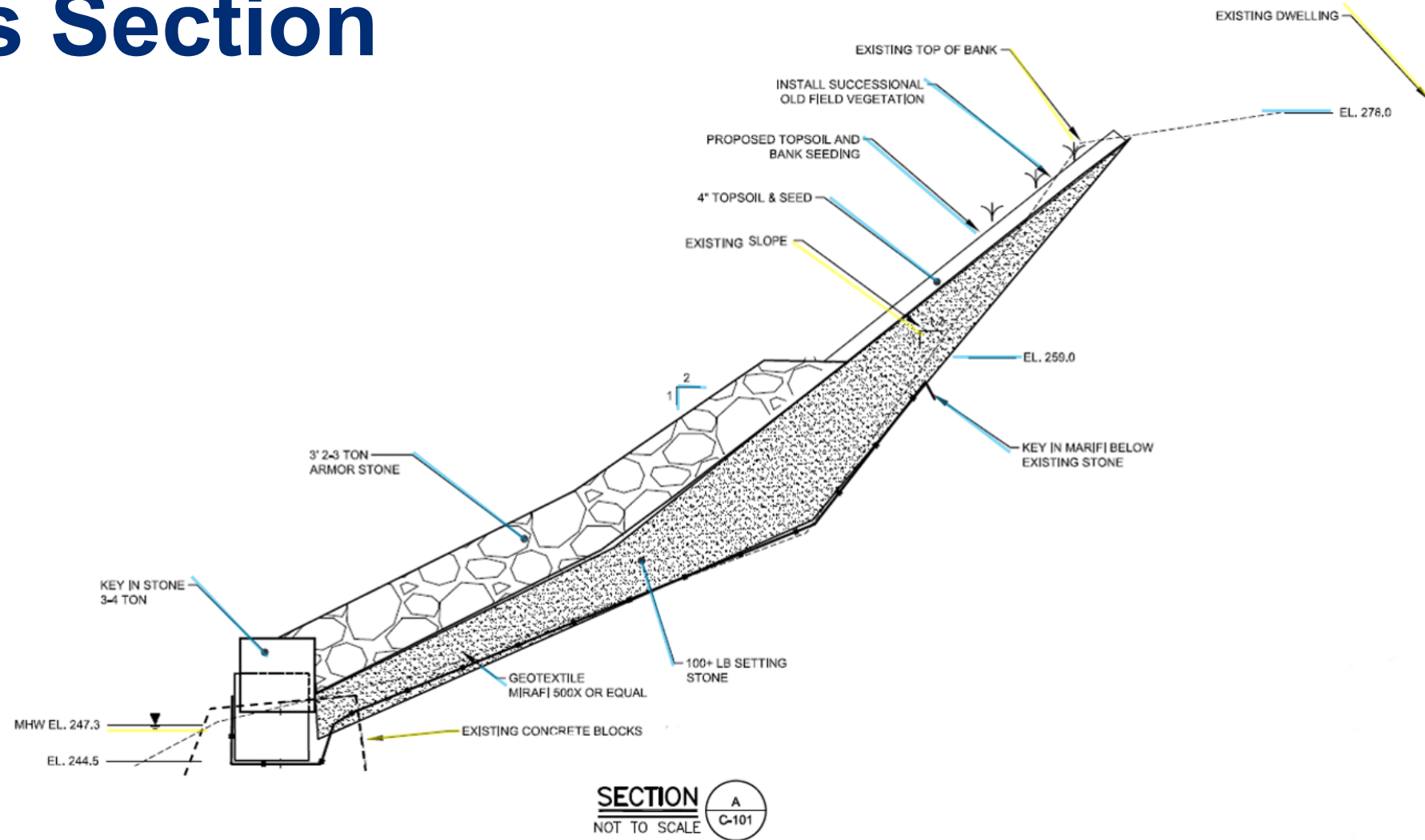
The individual toe stone size will be 3-4 ton and the individual armor stone size will be 2-3 ton. Stone will be irregular in shape and the largest stones will be placed on the surface. The armor stone layer will be a minimum of 36 inches thick. The setting stone will be a mix of sizes ranging from 100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

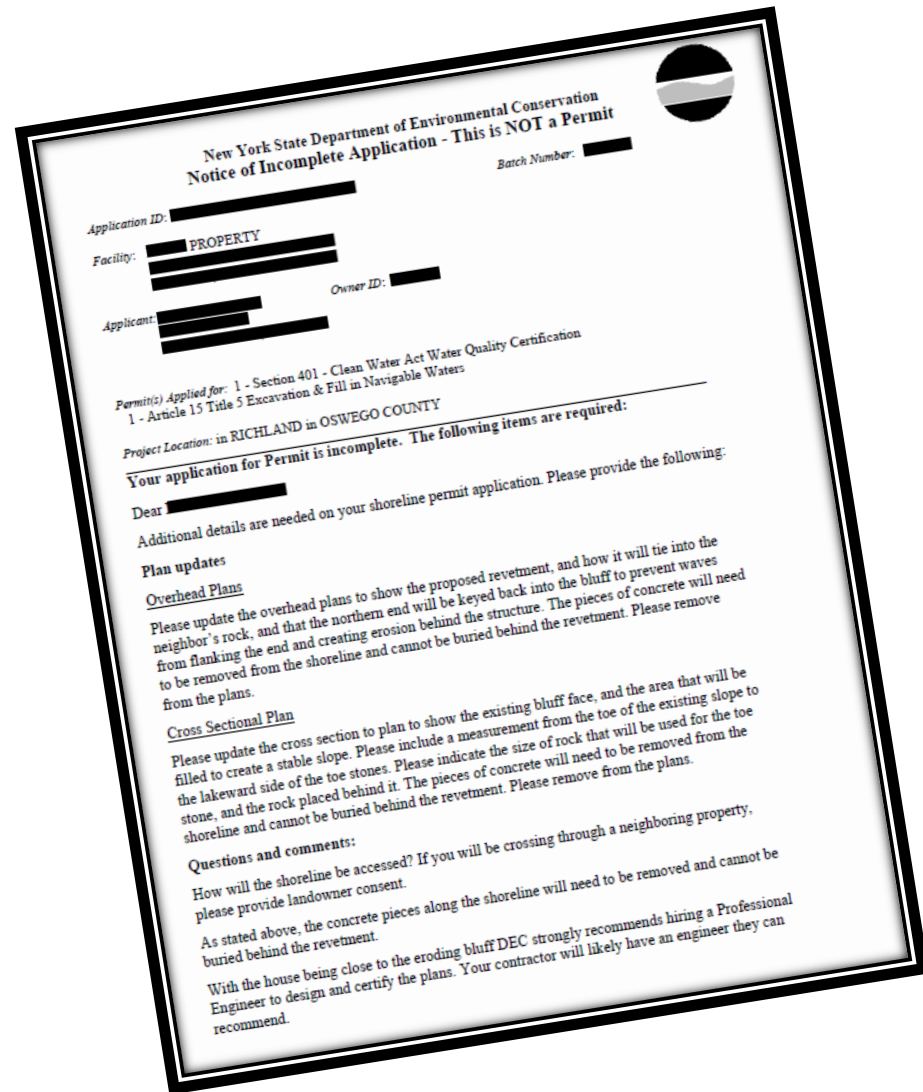
- 31.1% *Sorghastrum nutans*, NY4 Ecotype (Indiangrass, NY4 Ecotype)
- 20.0% *Lolium multiflorum* (Annual Ryegrass)
- 14.0% *Andropogon gerardii*, 'Niagara' (Big Bluestem, 'Niagara')
- 10.0% *Elymus canadensis* (Canada Wildrye)
- 7.0% *Elymus virginicus*, Madison-NY Ecotype (Virginia Wildrye, Madison-NY 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



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.

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.



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: _____ Latitude: _____ Longitude: _____

Authorized Activity: _____

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 plan: referenced in Natural Resources Condition No. 1 of this permit.

Permit Authorizations

Coastal Erosion Management - Under Article 34

Permit ID: _____

New Permit

Effective Date: _____ Expiration Date: _____

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
Address: NYSDEC Region 8 Headquarters
6274 E Avon-Lima Rd
Avon, NY 14414

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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