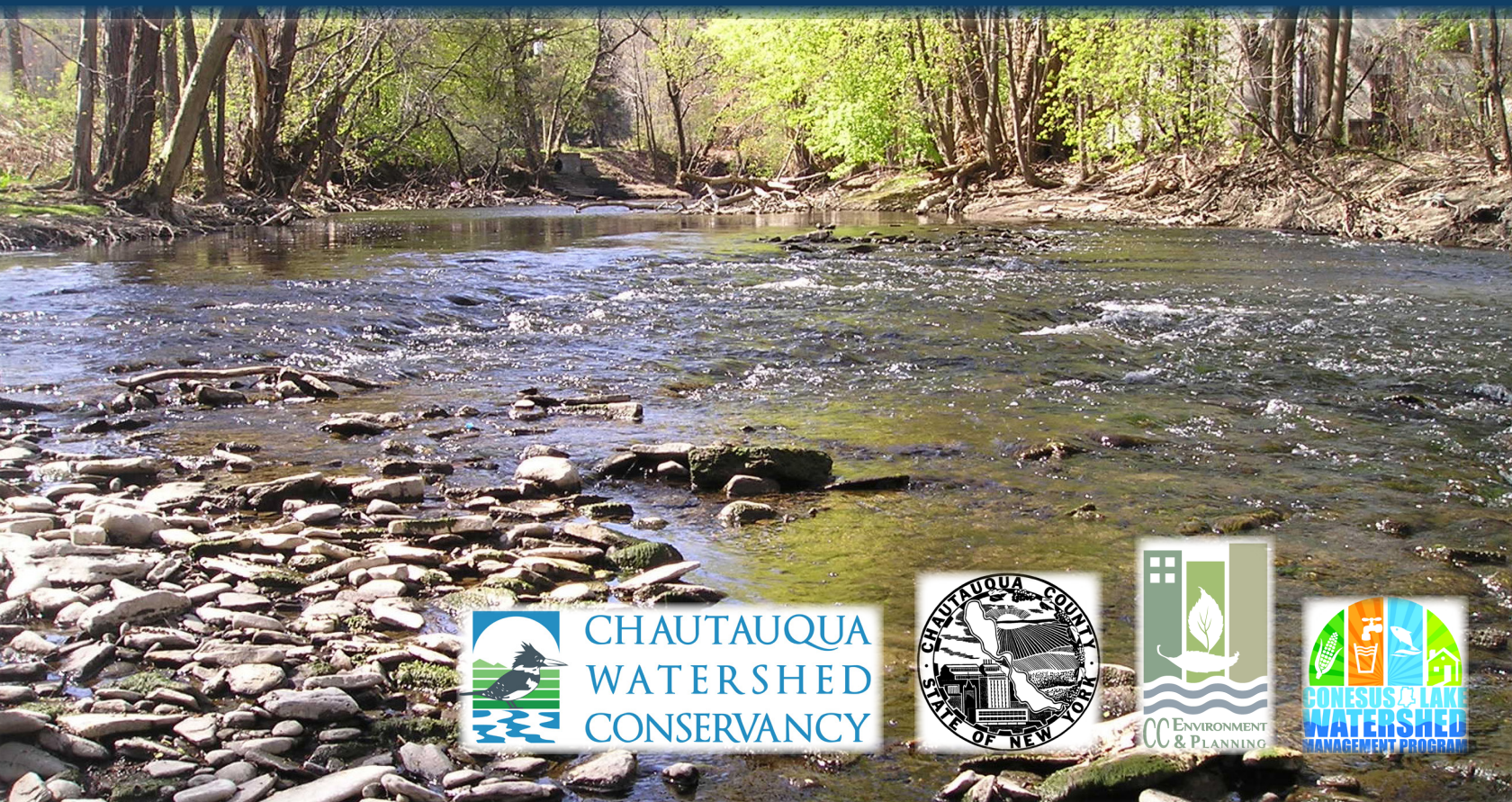




# Chautauqua Lake Watershed Stormwater Toolkit





**The Chautauqua Lake Watershed Stormwater Toolkit provides important information to help simplify and clarify the use of best management practices (BMPs) and permit processes and direct people to the appropriate agencies and offices prior to project implementation.**



The Chautauqua Lake watershed encompasses 180 square miles and includes all or part of 14 municipalities, nine of which directly border on the lake. They are: Towns of Busti, Chautauqua, Ellery, Ellicott, Harmony, North Harmony, Portland, Sherman, and Stockton, and the villages of Bemus Point, Celoron, Lakewood, Mayville, and Panama. Policies at local, state, and federal levels have been adopted to protect water quality, limit erosion, conserve wildlife habitat, and preserve the beauty and quality of life in our region.

# Quick Reference Guide

## Do You Need a Permit?

### Wetlands

Is your activity within or adjacent to a wetland?

**You may need a NYSDEC/USACE Joint Permit**

Contact:

- NYSDEC, Region 9 Permit Administrator - (716) 372-0645
- USACE, Buffalo District Office Regulatory Branch - (716) 879-4330

### Chautauqua Lake and Tributary Streams

Is your activity within or adjacent to a lake or stream?

**You may need a NYSDEC/USACE Joint Permit**

Contact:

- NYSDEC, Region 9 Permit Administrator - (716) 372-0645
- USACE, Buffalo District Office Regulatory Branch - (716) 879-4330

### Floodplains

Is your activity within a floodplain?

**You may need a Municipal Floodplain Development Permit - Contact Town Code Enforcement Officer (see below)**

### Soil Erosion and Sedimentation Control

Will your activity disturb one acre or more, or result in impervious surfaces?

**You may need a State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges**

Contact:

- NYSDEC, Region 9 Permit Administrator - (716) 372-0645

**For all developments and soil disturbances contact your local Town Code Enforcement Officer to ensure all municipal erosion and sediment control requirements are met (see below).**

### Additional References:

- Do I need a NYSDEC permit?: <http://www.dec.ny.gov/permits/6335.html>
- NYSDEC Permit Application: [http://www.dec.ny.gov/docs/pemits\\_ej\\_operations\\_pdf/jointapp.pdf](http://www.dec.ny.gov/docs/pemits_ej_operations_pdf/jointapp.pdf)

### Town Code Enforcement Officers:

- Bemus Point (716) 485-3910
- Busti (716) 763-8561
- Celoron (716) 487-4175
- Chautauqua (716) 753-7342 Opt. 5
- Ellery (716) 386-3465 Ext. 204
- Ellicott (716) 665-5317 Ext. 209
- Harmony (716) 488-0383
- Lakewood (716) 763-8557
- Mayville (716) 753-2125
- North Harmony (716) 789-3445 Ext. 3
- Panama (716) 621-4024
- Portland (716) 792-9614 Ext. 4
- Sherman (716) 484-3173
- Stockton (716) 595-3192

# Wetlands

## Activities within and Adjacent to Wetlands Apply for a New York State Department of Environmental Conservation (NYSDEC) U.S. Army Corps of Engineers (USACE) Joint Permit

### What is a wetland?

A wetland is an area that stays wet long enough during the growing season to support water-loving plants and develop hydric soils. There are many types of wetlands with many names including marsh, swamp, and wet meadow.

Wetlands are extremely important landscape features because they filter sediments, nutrients, and toxins from floodwater, store runoff, control shoreline erosion, provide food and habitat for fish and wildlife, and present opportunities for recreation, education, and research.

Wetlands are protected under the State Freshwater Wetland Act and Section 404 of the Clean Water Act. It is not always easy to know if you are working in a wetland or where it begins and ends. Avoid project delays and heavy fines! When in doubt contact agencies at the numbers below.

### A Joint Permit may be needed if wetlands or adjacent areas are temporarily or permanently disturbed.

Examples of disturbance include:

- Filling or placing materials into a wetland
- Dredging or removing soil from a wetland
- Draining water from a wetland
- Constructing driveways, boardwalks, or ponds through a wetland



### NYSDEC and USACE Joint Permit Application Process:

- Identify the extent of wetland on the property and if the wetland is regulated by NYSDEC and/or USACE.
  - Joint Permit Application form: [http://www.dec.ny.gov/docs/permits\\_ej\\_operations\\_pdf/jointapp.pdf](http://www.dec.ny.gov/docs/permits_ej_operations_pdf/jointapp.pdf)
  - Instructions for completing form: [http://www.dec.ny.gov/docs/permits\\_ej\\_operations\\_pdf/jntappinstruc.pdf](http://www.dec.ny.gov/docs/permits_ej_operations_pdf/jntappinstruc.pdf)
- If a federal permit is required, NYSDEC will need to issue a Water Quality Certification.
  - Certification form: <https://www.dec.ny.gov/permits/6546.html>
- If the wetland is also regulated by NYSDEC (typically 12.4 acres or greater), a state permit is required for activities in the wetland and in a 100' radius around the wetland.
  - NYSDEC Freshwater Wetland Permit program: <http://www.dec.ny.gov/permits/6279.html>

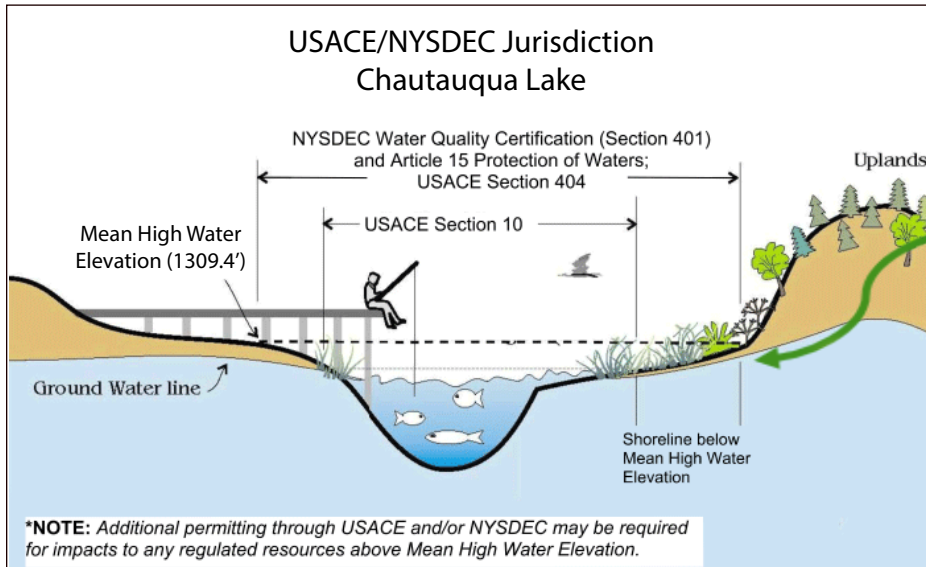
### Points of Contact:

- NYSDEC Region 9 - Regional Permit Administrator, (716) 372-0645
- USACE Buffalo District Office - Regulatory Branch, (716) 879-4330



# Chautauqua Lake and Tributary Streams

## Activities within or along the shorelines of Chautauqua Lake and its navigable tributaries and streams below the Ordinary High Water Mark (OHWM) Apply for a NYDEC/USACE Joint Permit



### Tributary streams:

OHWM is determined in the field during project design and permit application.

### Chautauqua Lake:

OHWM is generally the Mean High Water Elevation, which is 1309.4' above sea level.

Note: the OHWM may be modified by other factors; regulatory should be contacted.

Any project that includes temporary or permanent disturbance to bed, bank, or shoreline of Chautauqua Lake and its tributaries below the OHWM requires a permit. That includes:

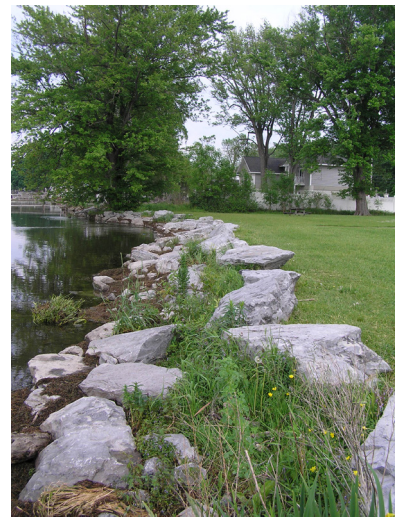
- Dredging or sediment/gravel bar removal
- Installation or restoration of docks, decks, or platforms
- Breakwaters, breakwalls, riprap, sheet-piling, and other in water structures
- Installation of mooring devices
- Any other placement of fill below the OHWM

### Permit information:

- Joint Permit Application Form:  
[http://www.dec.ny.gov/docs/permits\\_ej\\_operations\\_pdf/jointapp.pdf](http://www.dec.ny.gov/docs/permits_ej_operations_pdf/jointapp.pdf)
- NYSDEC Protection of Waters Program:  
<http://www.dec.ny.gov/permits/6042.html>
- Do I need a NYSDEC Protection of Waters Permit?:  
<http://www.dec.ny.gov/permits/6335.html>

### Points of Contact:

- NYSDEC Region 9 - Regional Permit Administrator  
(716) 372-0645
- USACE Buffalo District Office - Regulatory Branch  
(716) 879-4330





# Floodplains

**A local permit is required for all development within Special Flood Hazard Areas shown on Flood Insurance Rate Maps.**

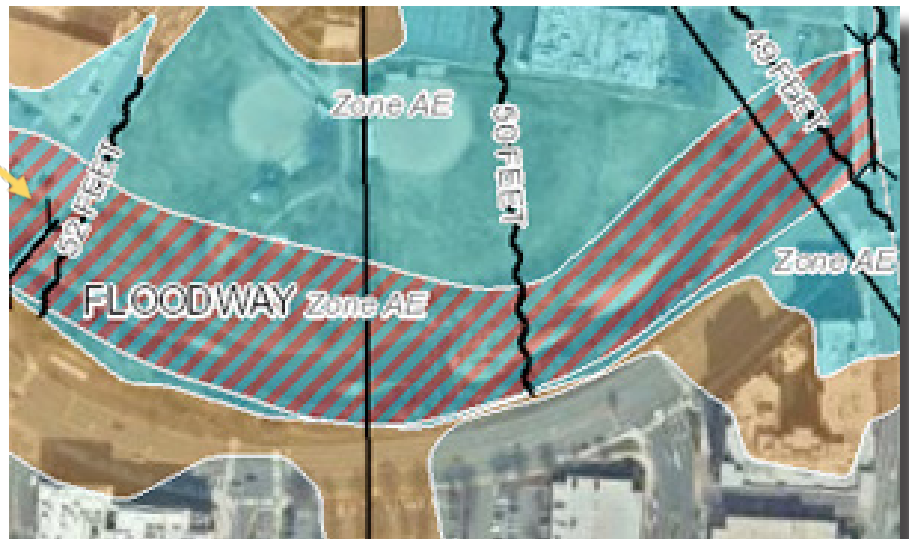
**This requirement allows all residents to be eligible for flood insurance wherever required. It also helps ensure that new developments are not at risk of flood damage and protects other properties from increased flood hazards.**

## Special Flood Hazard Areas:

These areas can be identified on Flood Insurance Rate Maps located at <https://msc.fema.gov/portal>.

All municipalities in the Chautauqua Lake Watershed require a floodplain permit for development in Special Flood Hazard Areas. Other state and federal permits may also apply.

Additional information on the National Flood Insurance Program can be found by visiting [www.fema.gov/business/nfip](http://www.fema.gov/business/nfip).



## What is a floodplain?

A floodplain is a low-lying area adjacent to a waterway generally defined by its frequency of flooding (e.g. 100-year floodplain has a one percent chance of flooding during any given year).

## Detrimental Effects of Developing in a Floodplain:

- Increased flood hazards and flooding downstream
- Greater stormwater and sediment inputs to water
- Increased erosion and loss of natural vegetation
- Damage and loss of property
- Critical habitat loss of threatened and endangered species



## Activities that Require a Permit:

These include any project that involves man-made change to improved or unimproved real estate, such as:

- Construction or modification to structures
- Modification of existing drainage patterns
- Permanent storage of materials or equipment
- Excavation
- Land clearing and/or grading
- Driving of piles
- Dredging
- Filling



## Points of Contact:

- Municipal Code Enforcement Officer/  
Floodplain Administrator



# Soil Erosion and Sedimentation Control

**Prevent uncontrolled drainage and runoff associated with land development.  
Help protect water quality, wildlife habitat, and the health and safety of the community.  
Use best BMPs to prevent soil from leaving a property and entering waterways.**

**Erosion and sediment control are important for every project, big or small!  
It is the cumulative impact of many construction projects on the landscape that can negatively affect our waterways.**

Use BMPs if disturbing soils, removing existing vegetation, or changing topography.

## **Erosion and Sediment Control Actions Include:**

- Construction of a gravel construction entrance
- Proper installation of a silt fence at lower edge of the disturbance
- Establishment of ground cover
- Maintenance of an undisturbed buffer and avoidance of areas near ditches, streams, and wetlands
- Assessing construction sites at the end of each day



## **Permits are Required BEFORE Digging!**

**For all developments and soil disturbances:** Contact your local Town Code Enforcement Officer to ensure you're meeting all municipal erosion and sediment control requirements.

- Busti (716) 763-8561
- Bemus Point (716) 485-3910
- Celeron (716) 487-4175
- Chautauqua (716) 753-7342 Opt. 5
- Ellery (716) 386-3465 Ext. 204
- Ellicott (716) 665-5317 Ext. 209
- Harmony (716) 488-0383
- Lakewood (716) 763-8557
- Mayville (716) 753-2125
- North Harmony (716) 789-3445 Ext. 3
- Panama (716) 621-4024
- Portland (716) 792-9614 Ext. 4
- Sherman (716) 484-3173
- Stockton (716) 595-3192

**For projects involving over 1 acre of disturbance:** Obtain coverage under NYSDEC State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (the Construction Permit). See NYSDEC Construction Stormwater Toolbox at: <https://www.dec.ny.gov/chemical/8694.html> or contact NYSDEC, Region 9 Permit Administrator - (716) 372-0645



# Effective vs. Ineffective Erosion and Sediment Control Actions

## Gravel Drive Effective vs. Ineffective



- Create a gravel construction entrance that is at least 6in deep and 12ft wide.
- Use loose, big stone (2-3in) to scrape and collect mud from construction vehicles and keep adjoining roadways clean.
- A poorly constructed gravel drive is less than 6in deep and uses small and rounded stones.
- Sediment tracked into roadways is a potential safety issue and results in pollution of our waterways.

## Ground Cover Effective vs. Ineffective



- Seeding disturbed areas after construction is complete will reduce runoff and erosion.
- Any disturbed areas that are at final grade or will remain idle for an extended period of time should be seeded and mulched within days of completion.
- Bare ground is highly susceptible to erosion during rain events.
- Establishing ground cover by seeding and mulching immediately after construction will largely eliminate erosion.
- **Don't skip the mulch.**

## Silt Fence Effective vs. Ineffective



- A silt fence prevents erosion because it allows water to filter through but not soil.
- Effective installation includes placing the fence in the proper location, partially burying (trenching), and staking for adequate reinforcement.
- **Ineffective** installation of a silt fence or poor placement will result in erosion and runoff into waterways.
- Common mistakes include installation of a silt fence without proper trenching and staking, and placement in an area of concentrated flow.

## Buffers Effective vs. Ineffective



- Sites near water (ditches, streams, wetlands, and lakes) require extra protection from erosion and sediment control.
- Maintaining vegetated buffers that are as wide as the project will protect water quality by filtering runoff.
- Disturbance adjacent to water may result in negative impacts to water quality.
- Disturbance may also be a violation of local, state, and federal law.
- Maintaining a vegetative buffer zone will protect water quality.

# Agriculture Best Management Practices

BMPs provide effective ways to make the most of our natural resources while minimizing unintended effects on our lands and waters. Protecting the beauty and health of our landscape also protects the beauty and water quality of our Lake.

## Agriculture Best Management Practices for Water Quality



No-till farming

- **Cover Crops** - growing annual plants when fields are fallow will control erosion, allowing uptake of excess nutrients, and weed suppression

- **No-Till Farming** - leaving plant material from past harvest on the soil will keep nutrients and pesticides on the field, reduce runoff and erosion, and improve soil, water, and air quality.



Stream fencing

- **Critical Area Planting** - planting grass, shrubs, and trees will protect areas vulnerable to erosion including steep slopes, swales and along waterways, and heavy use areas (livestock and equipment)

- **Stream Fencing** - using fencing to guide animal movement out of streams or into divided pastures decreases erosion, improves water quality, and distributes nutrients.



Riparian buffers

- **Filter Strips** - planting strips of grass at the lower edges of fields will trap runoff containing sediment, nutrients, and pesticides before it enters waterways.

- **Riparian Buffers** - planting and maintaining 20+ feet of vegetated buffer (grass, shrubs, trees) next to drainage ditches, streams, and rivers will help filter runoff, protect soil from erosion, improve water quality and support wildlife.



Water management

- **Conservation Buffers** - establishing a vegetated buffer (grass, shrubs, and/or trees) between fields and waterways will protect surface waters.

- **Water Management** - developing a watering facility to provide livestock with water from a well, spring, pond or other source is an alternative to direct access to surface water.

- **Pest Management** - keeping crop pests at manageable levels will help protect soil, water, and air.



Grassed waterway

- **Nutrient Management** - applying the correct amount and form of nutrients for crop yield goals will help minimize loss into surface waters and groundwater.

- **Grassed Waterways** - utilizing natural vegetation to conduct water downslope helps to prevent soil loss and improve water quality.

## References and Resources:

- Chautauqua County Soil and Water Conservation District (716) 664-2351 Ext. 5

- Natural Resources Conservation Services (NRCS) (716) 664-2351 Ext. 114



# Forestry Best Management Practices

**Best management practices (BMPs) provide effective ways to have an economically viable timber harvest while minimizing unintended effects on our lands and waters.**

## Forestry Best Management Practices for Water Quality



Critical Areas - Streamside Management



Forest road



Wetlands



Stream crossing

- **Pre-harvest Planning** - planning in advance with the help of a forestry professional will be more economical and effective and allow proper application of BMPs to protect soil, water, and remaining timber.
- **Critical Areas** - protect water quality by avoiding critical areas which include streams, streamside management zones, floodplains, wetlands, water bodies, steep slopes (30% or greater), and unstable soils.
- **Log Landings** - locate landings at least 200 feet away from water. Use straw bales or silt fencing to minimize erosion. Buffer landings from roads and use coarse gravel to filter mud before vehicle enter public roads.
- **Forest Roads and Skid Trails** - plan location to minimize the amount of cut and fill and to minimize the number of water crossings. Avoid water bodies and/or provide buffer strips. Avoid steep slopes. Identify and utilize appropriate stabilization, drainage, and erosion control measures. Engage a forestry professional for design of forest roads.
- **Erosion and Sediment Control** - apply erosion control techniques including water diversion features (water bars, deflectors, turn up, diversion ditch), silt fence or straw bales to protect waterbodies, filter strips, soil stabilization and gravel at culvert intake and outfalls.
- **Wetlands** - avoid wetlands. If avoidance is not possible, use temporary wooden swamp mats to construct roads, ensure ditches do not drain the wetland, and employ erosion control techniques such as silt fencing and straw bales. Disturbance to wetlands may require a state or federal permit.
- **Permits** - several state and federal regulations are in place to protect wetlands, streams, and water quality during timber harvest. Contact regulatory staff to determine if your harvest plan requires a permit.
- **Stream Crossings** - minimize stream crossings. Place unavoidable crossings where there are low, stable banks and a firm stream bottom. Install culverts or bridges during low flow and stabilize soils immediately after installation. Be sure culverts are not too small. Engage a forestry professional for design of stream crossings. Crossings may require a state or federal permit.
- **Disturbed Soils** - smooth soils and seed and mulch all disturbed areas including roads, skid trails, and landings as soon as possible to minimize erosion.

### References and Resources:

- NYS Forestry BMPs for Water Quality:  
[https://www.dec.ny.gov/docs/lands\\_forests\\_pdf/dlfbmpguide.pdf](https://www.dec.ny.gov/docs/lands_forests_pdf/dlfbmpguide.pdf)
- Do I need a NYSDEC Protection of Waters Permit?:  
<http://www.dec.ny.gov/permits/6335.html>
- Do I need a NYSDEC Freshwater Wetland Permit?:  
<http://www.dec.ny.gov/permits/6279.html>

# Contact Information

**NYS Department of  
Environmental Conservation**  
Region 9 - Regional Permit Administrator  
(716) 372-0645  
FAX (716) 372-2133

**U.S. Army Corps of Engineers**  
Buffalo District Office - Regulatory Branch  
(716) 879-4330

**Chautauqua County Department of  
Environmental Health Services**  
(716) 753-4481

**Chautauqua County Planning and  
Community Development**  
Jamestown 716-661-8900  
Dunkirk 716-363-3672

**Natural Resource Conservation Services  
(USDA - NRCS)**  
(716) 664-2351 Ext.114

**Chautauqua County  
Soil & Water Conservation District**  
District Manager  
(716) 664-2351 Ext. 117

**Towns and Villages**  
Municipal Code Enforcement:  
Bemus Point (716) 485-3910  
Busti (716) 763-8561  
Celoron (716) 487-4175  
Chautauqua (716) 753-7342 Opt. 5  
Ellery (716) 386-3465 Ext. 204  
Ellicott (716) 665-5317 Ext. 209  
Harmony (716) 488-0383  
Lakewood (716) 763-8557  
Mayville (716) 753-2125  
North Harmony (716) 789-3445 Ext. 3  
Panama (716) 621-4024  
Portland (716) 792-9614 Ext. 4  
Sherman (716) 484-3173  
Stockton (716) 595-3192



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