Conesus Lake Stormwater Toolkit

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CONTENTS

A listing of the State, County, and Municipal agencies and organizations involved with various aspects of stream- and stormwater management in the Conesus Lake Watershed, including a brief summary of their responsibilities and contact information.

KEY TERMS & DEFINITIONS

303 (d) Water - The New York State Section 303(d) List of Impaired/TMDL Waters identifies those waters that do not support appropriate uses and that may require development of a Total Maximum Daily Load (TMDL). The Section 303(d) List is updated every two years.

Adjustment- Natural, often predictable changes in physical stream channel form in response to impacts to the stable stream configuration and sediment transport regime. Because streams continuously adjust their physical characteristics over time to maintain balance between form, sediment competence and sediment load, any shift in one of these dynamic components triggers an adjustment in form to re-establish this balance. In impaired stream systems where these dynamic shifts frequently occur, adjustments are often expressed by excessive sediment deposition and lateral migration (bank erosion).

Alluvial Fan- Unconsolidated sediments that are deposited at the end of a river or stream, often triangular in shape, and found at the base of a topographic feature.

ASL – Above Sea Level

B/CA- Benefit-Cost Analysis, the method by which the future benefits of a mitigation, hazard-reduction or public works project are estimated and compared to its cost. FEMA provides a standardized B/CA "Toolkit" for analyzing hazard mitigation projects.

Base Flood- The flood having a one percent chance of being equaled or exceeded in any given year. This is the regulatory standard also referred to as the "100-year flood." The base flood is the national standard used by the National Flood Insurance Program (NFIP) and all Federal agencies for the purposes of requiring the purchase of flood insurance and regulating new development. Base Flood Elevations (BFEs) are typically shown on Flood Insurance Rate Maps (FIRMs).

BFE – Base Flood Elevation. The water surface elevation corresponding to the 100yr (1% annual chance) flood, as determined by hydraulic modeling. Structures below BFE are considered "within the 100-year floodplain". Structures above BFE are considered "out of the 100-year floodplain."

BMP- Best Management Practices are structural, vegetative, or managerial practices used to treat, prevent or reduce water pollution, usually attributable to stormwater runoff and erosion/sedimentation controls.

CEO – Code Enforcement Officer. Municipal staff charged with the enforcement of local ordinances and regulations, typically including building codes, floodplain development regulations, etc.

Clean Water Act (CWA) The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. It is a Federal regulation, 33 U.S.C. §1251 et seq. (1972), with the objective to restore and maintain the chemical, physical, and biological integrity of the Nation's waters.

Competence- degree of effectiveness by which a stream can entrain (mobilize) and transport the size of sediment material available to it. Streams that are over-competent can move sediment larger than that available, inducing channel degrading (downcutting). Under-competent stream sections lack the ability to mobilize the size of sediment present, and so are prone to aggradation, or sediment deposition.

Concentrated Flow- The point at which overland sheet flow has been collected into a shallow but defined flowing body of water, but not yet fully channelized. Erosion potential of concentrated flow is higher than sheet flow, but lower than channelized flow.

Confinement- The degree to which a stream channel is laterally disconnected from its floodplain, contributing to elevated flood elevations and velocity and increased potential for bank erosion and bed degrading (scour); increased confinement exacerbates instability of stream channels and corresponding impacts and hazards.

Culvert - a fully enclosed drainage structure that runs under a road or portion of land. In comparison, a bridge is a structure carrying a road, path, railway, etc. across a river, road or obstacle.

Delta- A dynamic landform created and maintained by the deposition of large volumes of sediments by a river as its velocity slows down when it reaches a lake, sea, or estuary.

Detention- Temporarily holding stormwater during a runoff event to reduce peak runoff and allow suspended solids to settle.

Development – For the purpose of this document, refers to any modification to the natural landscape. Development includes clearing, grading, land-use conversion (such as from forest to agriculture or residential), placement of fill, paving, construction of roads, homes, buildings, structures, shoreline- or bank protection measures, etc.

Drainage Area- the total land surface area discharging to a given point on a stream.

E&S Control – Erosion and Sedimentation Control. Methods and practices intended to reduce the degree of soil erosion and delivery of sediment to water bodies adjacent to areas of land disturbance associated with development projects. Under State and local (municipal) law, development projects which exceed established thresholds for size of disturbance area must be covered under an approved Erosion and Sedimentation Control Plan or Permit prior to the start of any land disturbance activities.

Encroachment- Activities or construction within the floodway including fill, new construction, substantial improvements, and other development which contribute to stream channel confinement, increasing risk and severity of related impacts along the stream corridor.

Evapotranspiration- The process that transfers water from land surface to the atmosphere as evaporation (or sublimation when below freezing) from open water, soil, and plant canopies and as transpiration by plants.

Fill material - means any material used for the primary purpose of replacing an aquatic area with dry land or of changing the bottom elevation of a waterbody. The term does not include any pollutant discharged into the water primarily to dispose of waste. (33 CFR 323).

FEMA- Federal Emergency Management Administration. Within the context of this Stormwater Toolkit document, this agency administers flood mitigation assistance programs and develops minimum rules which municipalities are required to implement and enforce through local ordinance in order to be eligible for the National Flood Insurance Program (NFIP).

FIRM – Flood Insurance Rate Map. The official map of a community on which FEMA has delineated both the special hazard areas (areas at or below the Base Flood Elevation) and the risk premium zones applicable to the community.

FIRMETTE- A paper copy of a user defined portion of a Flood Insurance Rate Map (FIRM).

First-Floor Elevation (FFE) – the lowest floor of the lowest enclosed area of a home or building, except for unfinished or flood-resistant enclosures used solely for parking of vehicles, building access, or storage. For homes and buildings with enclosed basements, FEMA considers the basement floor to be the FFE. Homes and buildings with First-Floor Elevation below the Base Flood Elevation do not comply with NFIP minimum rules, and are subject to higher flood insurance premiums than homes and buildings in the same community with FFE above BFE.

FIS- Flood Insurance Study, a compilation and presentation of flood risk data for specific watercourses, lakes, and coastal flood hazard areas within a community.

FLLOWPA- Finger Lakes-Lake Ontario Watershed Protection Alliance, who facilitates processes that encourage watershed partnerships and implementation of action plans to protect and enhance water quality.

Floodplain- Lowlands or relatively flat areas adjoining streams and rivers subject to inundation at routine or regular basis.

Floodproofing - any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Floodway- the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without increasing the water surface elevation (see *"Regulated Floodway"*, below).

Geomorphic Setting – The prevailing physical character of the landscape, including topography, elevation, slopes, drainage patterns, and other characteristics of terrain that dictate natural geomorphic processes such as erosion and deposition.

Geomorphology- The study of the character and origin of landforms, such as mountains, valleys, and streams and the dynamic forces and processes which dictate their shape and evolution of form over time.

Green Infrastructure- A cost-effective, resilient approach to managing wet weather impacts that provides many community benefits.

Hydraulics- study of the dynamic characteristics of moving (flowing) waters, influencing such factors as flooding, sediment transport and stream channel stability.

Hydrology- the movement, distribution, and fate of water between the atmosphere, landscape and waterbodies of the Earth, including precipitation, groundwater, and surface waters.

Infiltration- Groundwater recharge through retention of stormwater for a sufficient period of time to allow for stormwater to pass through the surface of the ground and into the groundwater aquifer.

Interception- Rainfall that is captured by tree canopy and does not hit the ground surface. This water is held as aboveground storage, typically evaporated back into the atmosphere.

JPA – Joint Permit Application

Mean High Water Elevation – In lakes and tidal-influenced waterbodies, the elevation that corresponds to the average highest annual water level for the period of record available for a given waterbody, typically recorded at a water level gage. Any project affecting excavation, fill or disturbance to the shoreline or bottom of Conesus Lake below the mean high water elevation (820.79') requires permitting through NYSDEC and USACE prior to the start of any disturbance activities.

Mean Low Water Elevation - In lakes and tidal-influenced waterbodies, the elevation that corresponds to the average lowest annual water level for the period of record available for a given waterbody, typically recorded at a water level gage. Mean Low Water Elevation for Conesus Lake is 816.75'.

Mitigation- In terms of natural resource management, the practice of replacing lost functions and values associated with resources (wetlands, streams, etc.) negatively-impacted by development or other types of work projects. Also refers to practices intended to reduce or eliminate the negative effects of floods and other types of hazards.

Municipality – for this document, refers to the prevailing Town government.

NFIP- National Flood Insurance Program (NFIP), managed by the Federal Emergency Management Agency (FEMA), enables homeowners, business owners and renters in participating municipalities to purchase federally backed flood insurance. In order for members of the community to be eligible for the NFIP program, the governing municipality must implement and enforce a series of minimum NFIP rules developed by FEMA in their local ordinances.

NWP – Nationwide Permit. General permits administered through USACE authorizing specific types and extents of impacts to Waters of the US (WOTUS).

NYSDEC- New York State Department of Environmental Conservation

OHWM - Ordinary High Water Mark - bankfull elevation in streams or mean high water elevation in lakes. The ordinary high water mark is a line on the shore established by fluctuations of water level and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas.

Planning Board- An administrative body of local government that reviews and approves subdivision plats; reviews and approves site plans; reviews and approves special-use permits; participates in the preparation of a comprehensive plan, when directed by the local legislature; and advise the local legislature and other boards on matters affecting a community's development.

Reach- Contiguous sections of a waterbody, such as a stream, with similar physical and/or hydrologic characteristics.

Recurrence Interval- Average period of time for a flood that equals or exceeds a given magnitude, expressed as a period of years and based on historical record. For example, a 100-year magnitude flood has a recurrence interval of 100 years, indicating that through analysis of historical flood data for a given location, a flood of that magnitude has occurred, on average, once every 100 years.

Regulated Floodway - the channel of a river or stream and the adjacent land areas, as designated by a municipality through local floodplain ordinance, which must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. To be eligible for NFIP coverage, municipalities must regulate development in the regulated floodway to ensure that there are no increases in upstream flood elevations. For streams and other watercourses

where FEMA has provided Base Flood Elevations (BFEs), but no floodway has been designated, the municipality must review floodplain development on a case-by-case basis to ensure that increases in water surface elevations do not occur, or identify the need to adopt a floodway if adequate information is available.

Retention- Similar to detention, but holding water more permanently in a designed feature (e.g. retention pond), holding water longer and allowing more suspended solids to settle.

Riparian Buffer- Areas of land immediately adjacent to waterbodies (such as streams, lakes, and rivers) in permanent vegetation that help control pollutants and flooding, and promote streambank stability and reduced flood velocities.

Riverine – relating to, or associated with, flowing bodies of water such as rivers, streams, and creeks. In the context of this document, refers to the tributary streams draining to Conesus Lake, not the Lake proper.

Sediment- Boulder, cobble, gravel, sand, silt and other particulate materials that comprise the bed and banks of streams, mobilized and transported by flowing water during high-water events.

SFHA (Special Flood Hazard Area) - The land area covered by the floodwaters of the base flood ("100-year flood") is the Special Flood Hazard Area (SFHA) on NFIP maps. The SFHA is the area where the National Flood Insurance Program's (NFIP's) floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies.

Sheet Flow- Shallow depth and low velocity movement of water spread out over a wide section of land. Sheet flow has a relatively low erosion potential.

Sinuosity- measurement of the degree curvature to which a stream or river meanders.

SPDES – State Pollution Discharge Elimination System. The SPDES program is designed to eliminate the pollution of New York waters and to maintain the highest quality of water possible consistent with public health, public enjoyment of the resource, protection and propagation of fish and wildlife and industrial development in the state. The SPDES program is implemented through a series of General and Individual permits regulating development (such as construction) and operational (such as wastewater treatment) activities representing potential point-and non-point sources of pollution to waterways.

Steep Slope - land with a Soil Slope Phase that is identified as an E or F, or the map unit name is inclusive of 25% or greater slope, on the USDA Soil Survey for the prevailing County where the disturbance will occur.

Stormwater- Water from rain or melting snow that doesn't soak into the ground but runs off into waterways.

Structure - for flood plain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

SWCD – Soil and Water Conservation District, administered by each County across New York State.

SWPPP – Stormwater Pollution Prevention Plan. The SWPPP serves as the erosion and sedimentation control plan for larger-sized development and construction projects. Development projects incurring over 1.0 acre of land disturbance require preparation of a SWPPP as part of the mandatory SPDES

General Permit for Stormwater Discharges from Construction Activity (GP-0-15-002) administered by NYSDEC.

Time of Concentration- The time required for runoff to flow across the land from its point of origin to the receiving waterbody. Higher time of concentration promotes more infiltration and retention, and translates to lower peak flows in streams. Lower time of concentration (often a consequence of increased impervious cover and land-use conversion) indicates runoff is traversing the landscape more quickly and reaching the receiving waterbody more rapidly, resulting in higher peak flows and flood elevations, higher flood velocities, and more potential for erosion, obstruction of bridges and culverts and other flood-related hazards.

USACE- United States Army - Corps of Engineers

Watershed- The entire area of land whose water drains into a given point along the course of a waterway.

Wetland - areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season. Wetlands vary significantly and may be forested, open water marsh, or wet meadow.

WOTUS – Waters of the United States - all navigable lakes and rivers with eventual connectivity to the sea and the upstream waters that drain to them.

ZBA- Zoning Board of Appeals, an administrative and quasi-judicial body that interprets the zoning ordinance, grants special-use permits, conducts site plan review, and considers appeals from decisions of the enforcement officer.

AGENCY JURISDICTIONS & RESPONSIBILITIES

Ordinary High Water (Mean High Water)

In the Conesus Lake Watershed, jurisdiction of the US Army Corps of Engineers (USACE) and New York State Department of Environmental Conservation (NYSDEC) to regulate disturbance activities to Conesus Lake and its tributary streams is determined by Ordinary High Water Mark. Legally, USACE regulations define the term "ordinary high water mark" for purposes of the Clean Water Act (CWA) lateral jurisdiction per 33 CFR 328.3(e), which states:

> *"The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."*

In essence, the regulatory boundary for USACE and NYSDEC matches the routine (mean, or average) high water elevation along a waterbody. The regulations and laws enforced by these agencies relevant to disturbance, excavation, and/or placement of fill (any material used for the primary purpose of replacing an aquatic area with dry land or of changing the bottom elevation of a waterbody) in protected waterways includes all areas below this elevation (see Figures 1 and 2).

For Conesus Lake, the mean high water elevation can be calculated from statistical analysis of annual water surface elevations collected at the USGS water level recording gage located along the lakeshore in the Town of Geneseo. Mean high water elevation for the Lake is 820.79' above sea level (asl).

For streams tributary to Conesus Lake, the ordinary high water elevation corresponds to the physical field indicators of routine high water fluctuation and floodplain engagement along the course of the stream. For this reason, ordinary high water elevation must be determined in the field based upon the prevailing physical characteristics of the stream, streambanks and floodplain at the area of interest. The ordinary high water mark along a stream corresponds to the elevation at which the active stream channel transitions to its adjacent floodplain, commonly matching the bankfull elevation.

New York State Department of Environmental Conservation (NYSDEC)

Title 5 of Article 15 of the Environmental Conservation Law

The following projects/activities require NYSDEC Article 15 Protection of Waters Permit:

1. Any project disturbing the bed, bank, or shoreline of a waterbody with a classification of AA, A or B, or with a classification of C with a standard of (T) or (TS), regardless of whether disturbance is temporary or permanent in nature.
    a. All streams draining to Conesus Lake are Classification C with Standard of C, and therefore are not covered under NYSDEC Article 15.
        i. Disturbance activities may still require other permits to authorize work above Ordinary High Water Mark (OHWM), such as:

- Local floodplain or Erosion Control Permits.
- SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-15-002).
- Article 24 Permit for disturbance to Freshwater Wetlands.

b. Conesus Lake is Classification AA – any disturbance to bed or banks (shoreline) requires a NYSDEC Article 15 permit. See item 3 for some examples of regulated disturbance activities.

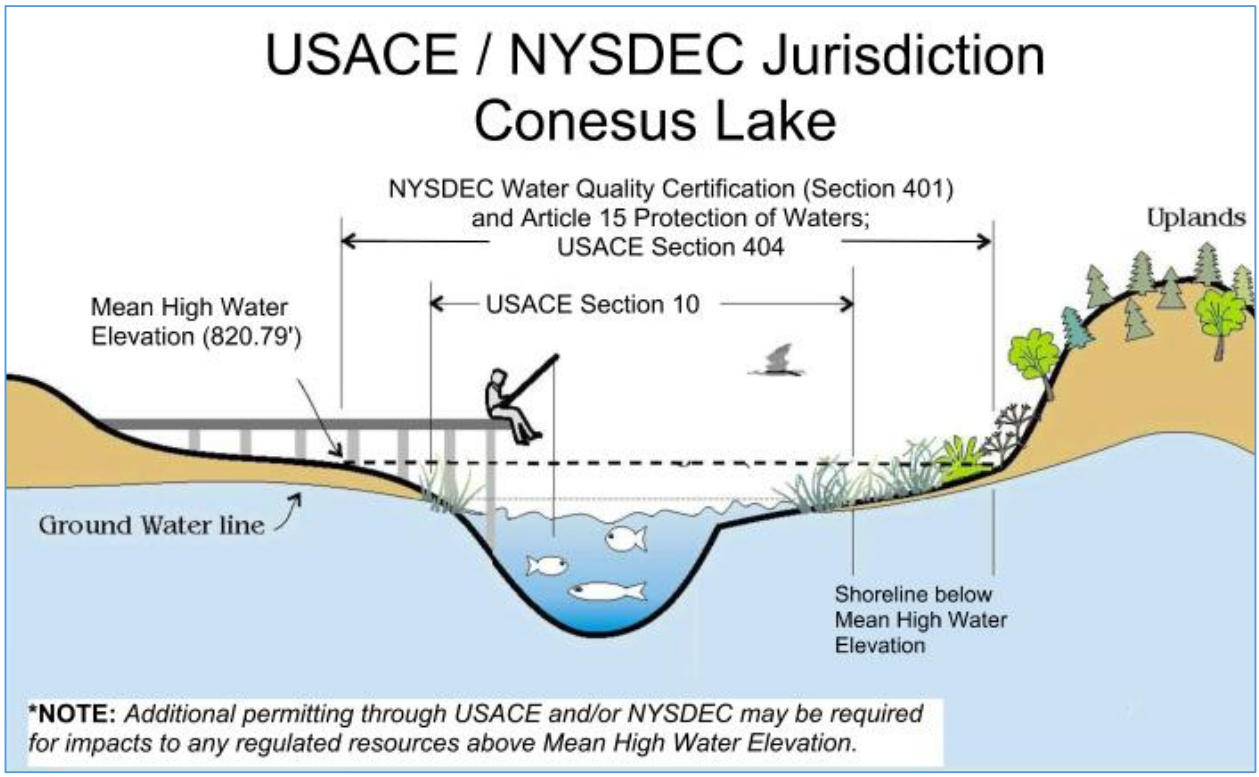

Figure 1. Graphic representation of jurisdictional limits in reference to Mean High Water Elevation for Conesus Lake, NY.

2. Any project that includes fill or excavation in a Navigable Waters of the State below the Mean High Water Mark elevation.

   a. All streams within the Conesus Lake Watershed fail to meet the NYSDEC regulatory definition of "Navigable Waterways of the State", and are categorized as "non-navigable".

      i. Disturbance activities may still require other permits to authorize work above or below Mean High Water Mark.

   b. Conesus Lake is a navigable waterway. Excavation or fill below the Mean High Water Mark elevation requires a Protection of Waters Permit. It should be noted that the inlet, a small section of North McMillan Creek and the mouths of streams up to the mean high water interval are navigable, and are subject to Article 15 permitting.

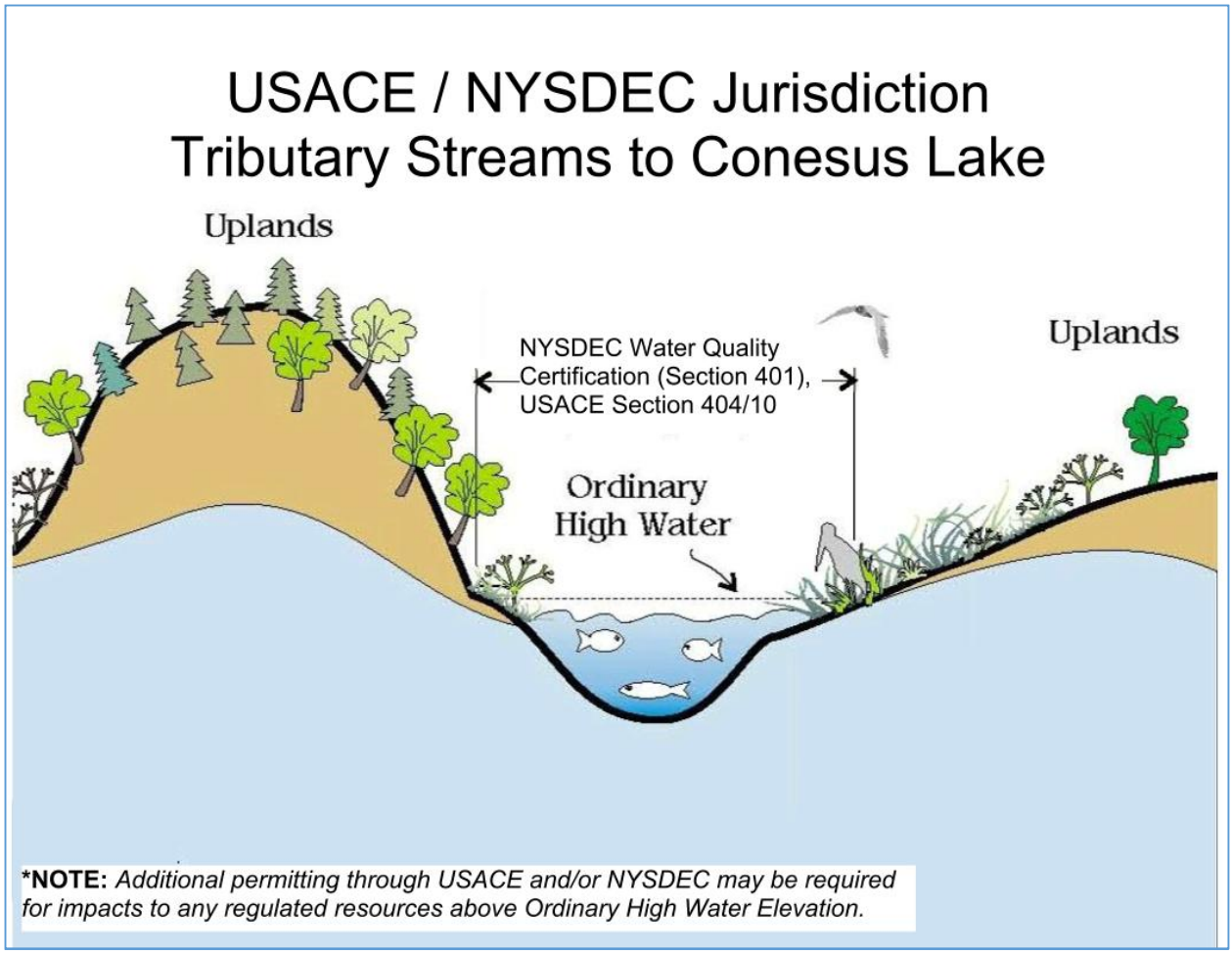

Figure 2. Graphic representation of the typical location and jurisdictional limits in reference to Ordinary High Water Elevation for tributary streams draining to Conesus Lake, NY.

3. In addition to the above, any of the following activities require an Article 15 Permit for regulated waters (Conesus Lake):

   a. Dredging or sediment/gravel bar removal.

   b. Installation of a floating dock or dock constructed on piles.

   c. Establishment of a marina consisting of multiple docks and ramps.

   d. Breakwaters, breakwalls, riprap, sheet-piling and other in-water structures.

   e. Installation of a platform to accommodate a use or activity on or above the water (i.e., deck, boathouse).

   f. Restoring or rebuilding an existing dock, pier, or wharf.

   g. Substantially changing the use of an existing dock or platform.

   h. The installation of mooring devices.

i. Any other placement of fill along the shoreline or in the Lake proper below Mean High Water Elevation, including soil, structural or bioengineering materials to support naturalized shoreline stabilization.

i. Planting and revegetation of shorelines alone (i.e. installation of plants into the existing bank/shoreline) does not constitute placement of fill and does not require permitting through NYSDEC or USACE. However, any placement of soil, wood or other fill material to support those plantings below Mean High Water Elevation constitutes placement of fill, and NYSDEC/USACE permitting is required prior to disturbance or placement of the fill.

ii. Although these activities may be covered under USACE NWP 54 (See USACE section below), NYSDEC Article 15 permitting will still be required.

Other NYSDEC Permits and Reviews

Within the Conesus Lake Watershed, other activities affecting the Lake and its tributaries may require other NYSDEC permits. These may include, but are not limited to:

1. Disturbance to regulated wetlands and their protected buffers (Article 24). State regulated wetlands are typically 12.4 acres in size or greater and include a 100' protected adjacent area.

2. Development projects with more than 1 acre of land disturbance (SPDES General Permit):

   a. Industrial-related projects discharging to Conesus Lake additionally require a SPDES MSGP (Multi-Sector General Permit) for Industrial Activities.

   b. Single family homes or single family residential subdivisions disturbing greater than 1.0 acre of land and discharging stormwater directly to Conesus Lake (a 303.d-listed waterbody) are required to include Post-Construction Stormwater Management Practices in the project SWPPP.

   c. Projects requiring a USACE permit for disturbance or placement of fill into the Lake or its tributary streams (see criteria provided in USACE section, below) also require a Section 401 Water Quality Certification to be issued by NYSDEC.

Note that the following activities are NOT authorized by the SPDES General Permit and would either require an Individual Permit, or not be permissible:

1. Construction activities for residential, commercial and institutional projects:

   a. Where the discharges from the construction activities are tributary to waters of the state classified as AA or AA-s (Conesus Lake is classified AA); and

   b. Which disturb one or more acres of land with no existing impervious cover; and

   c. Which are undertaken on land with a Soil Slope Phase that is identified as an E or F, or the map unit name is inclusive of 25% or greater slope, on the United States Department of Agriculture ("USDA") Soil Survey for the County where the disturbance will occur.

Additional SPDES permitting requirements are also required for discharges to 303 (d) waters within the Conesus Lake watershed. These more stringent requirements pertain to direct stormwater discharges to Conesus Lake, Jaycox Creek and tributaries, Mill Creek and minor tributaries, Bradner Creek and tributaries and Christie Creek and tributaries and include the following:

2. The application of soil stabilization measures must be initiated by the end of the next business day and completed within seven days from the date the current soil disturbance activity ceased.

3. The qualified inspector shall conduct at least two site inspections every seven calendar days. The two inspections shall be separated by a minimum of two full calendar days.

4. Development of a SWPPP that includes post-construction stormwater management practices developed in accordance with the New York State Stormwater Management Design Manual is required for soil disturbances of one or more acres of land for:

    a. Single family homes and

    b. Single family residential subdivisions.

NYSDEC Point of Contact

For any project potentially impacting streams, streambanks, wetlands, or Conesus Lake, refer to resources listed below for more information. Primary point-of contact is:

NYSDEC Region 8 - Regional Permit Administrator
Phone (585) 226-5400; Fax (585) 226-2830

References and Resources

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

http://www.dec.ny.gov/permits/6042.html - NYSDEC Protection of Waters Program

http://www.dec.ny.gov/permits/6335.html - Do I need a NYSDEC Protection of Waters Permit?

http://www.dec.ny.gov/permits/6058.html - NYSDEC Freshwater Wetlands Permits

http://www.dec.ny.gov/permits/6279.html - Do I need a NYSDEC Freshwater Wetlands Permit?

http://www.dec.ny.gov/animals/38801.html - Environmental Resource Mapper for regulated wetlands and streams

http://www.dec.ny.gov/permits/6546.html - Water Quality Certifications for projects requiring a federal permit

United States Department of the Army – Corps of Engineers (USACE)

Section 10 of Rivers and Harbors Act/Section 404 of Clean Water Act

Any activity that includes excavation or fill within any "Waters of the United States" (basic definition below) requires Federal authorization, administered by the US Army Corps of Engineers.

In very general terms, Waters of the U.S. (WOTUS) include all navigable lakes and rivers with eventual connectivity to the sea and the upstream waters that drain to them.

Because Conesus Lake drains to the Genesee River, then Lake Ontario and the St. Lawrence River to the ocean, Conesus Lake is a WOTUS.

Any waterbody with connectivity to Conesus Lake by surface or groundwater is therefore WOTUS by the same standard. All tributaries to Conesus Lake, and (for the application of this document) all wetlands within the basin draining to Conesus Lake fall under jurisdiction of the Rivers and Harbors/Clean Water Acts.

While the definition of WOTUS has long been in flux, a current, more comprehensive definition is available online at: https://www.epa.gov/wotus-rule/about-waters-united-states.

Many disturbance activities are covered by pre-established Nationwide Permits (NWP). Currently, there are 52 NWPs covering a range of common waterway-disturbance activities.

NWPs thresholds for specific types of excavation, fill, and disturbance activities are "pre-approved" so long as various criteria and limitations of disturbance (type and extent of fill or excavation, for example) outlined in the terms of the governing NWP are met.

Although work is "pre-approved" within given thresholds, NWP authorization/permission for any given project must be received from USACE prior to proceeding with work. In some instances, a waiver may be issued in lieu of NWP authorization, however consultation with USACE is required to identify whether the project is subject to a waiver.

Within WOTUS, federal (USACE) jurisdiction in lakes and streams extends to any portion of the streambed (or lake bed) and its banks (or shoreline) below Mean High Water (for Conesus Lake)/Ordinary High Water Mark (for tributary streams). This elevation commonly corresponds to the bankfull elevation in streams or mean high water elevation in lakes.

For Conesus Lake and any of its tributaries, activities that include excavation or placement of fill below OHWM requires authorization (by way of permit or waiver) through USACE prior to proceeding with work.

Attachment A to this document provides a summary table of all NWPs, their applicability and other relevant information. NWPs relevant to activities commonly undertaken in and around Conesus Lake may include:

1. NWP 3 – Maintenance
2. NWP 11 – Temporary Recreational Structures
3. NWP 12 – Utility Line Activities

4. NWP 13 – Bank Stabilization

5. NWP 14 – Linear Transportation Projects

6. NWP 19 – Minor Dredging

7. NWP 27 – Aquatic Habitat Restoration, Enhancement, and Establishment Activities

8. NWP 54 – Living Shorelines

USACE Point of Contact

For the Conesus Lake Watershed, USACE authorities fall under jurisdiction of the Buffalo District. Primary point-of contact is:

USACE Buffalo District Office - Regulatory Branch
Phone (716) 879-4330

References and Resources

Joint Permit Application Form (same form used for NYSDEC permit applications): http://www.lrb.usace.army.mil/Portals/45/docs/regulatory/Application/jointapp.pdf?ver=2016-08-23-092332-070

General overview of the NWP Program – http://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Nationwide-Permits/

Summary Table of USACE NWPs and Applicability - http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2017/nwp2017_sumtable_Jan2017.pdf?ver=2017-01-06-091151-173

Federal Emergency Management Agency (FEMA)

Applicable FEMA standards and programs are highlighted in Section D of this document.

Livingston County Department of Health

Conesus Lake Watershed Inspector

The objective of the Conesus Lake Watershed Inspection Program is to help protect and enhance Conesus Lake as a potable water source. The Livingston County Department of Health oversees the Conesus Lake Watershed Inspector, who responds to concerns regarding water quality and non-point sources of pollution in the watershed and enforces the Conesus Lake Watershed Standards & Regulations. Specifically, the Conesus Lake Watershed Inspector is entrusted with the following responsibilities:

1. *Site visits and inspections:*

    a. Ensure proper installation and function of E&S controls/BMPs at project site.

b. Consult private residents and site developers regarding E&S, BMPs, impact reduction/avoidance.

c. Reporting of violations to NYSDEC.

d. Field support to Code Enforcement Officers.

2. *Municipal support/public outreach:*

a. Coordinated education efforts with Conesus Lake Watershed Manager.

b. Receives notification that development plans have been submitted to County Planning Board for review.

3. *Site plan reviews* - Under the governing Erosion and Sediment Control Law (Towns of Conesus, Geneseo, Groveland, Livonia and Sparta), Municipal Planning Board/Zoning Board of Appeals (ZBA) provides site development plans proposed within the Watershed portion of the municipality to the Conesus Lake Watershed Inspector for Technical Review prior to rendering approvals/decisions. The Conesus Lake Watershed Inspector reviews site plans and provides recommendations back to the Municipality regarding:

a. Impact reduction and avoidance measures.

b. Potential impacts to water quality in Conesus Lake and tributaries attributable to the project.

c. Consideration and use of Erosion and Sedimentation (E&S) controls and other best management practices (BMPs)for development projects.

Point of Contact

Primary point-of contact is:

Livingston County Department of Health
Conesus Lake Watershed Inspector
Phone (585) 243-7280

Livingston County Planning Department

Conesus Lake Watershed Manager

1. Coordinate workshops and trainings for municipal staff and volunteers in cooperation with Watershed Education Center.

2. Develop educational resources.

3. Stormwater design, stormwater management, and water quality/E&S control issues.

4. Provide technical support to Livingston County Planning Department staff/County Planning Board regarding site plan elements to be considered when reviewing development plans in the watershed, steep slope areas, etc.

5. Provide assistance and support to Watershed Inspector and CEOs and accompany on development site visits in the watershed.

Point of Contact – Conesus Lake Watershed Manager

Primary point-of contact is:

Livingston County Planning Department
Conesus Lake Watershed Manager
Phone (585) 243-7550

Livingston County Planning Board

1. Section 239 of General Municipal Law requires municipal boards to refer certain development applications, proposed zoning changes, and comprehensive master plans to the County Planning Board for review before taking final action.

2. "239" Reviews consider the inter-community and county-wide impacts of local (municipality-based) land use changes and decisions.

3. Provides technical expertise from County Planning Department to assist municipal decision-makers (Planning Board/ZBA).

Point of Contact – County Planning Board

Primary point-of contact is:

Livingston County Planning Department
Planning Director
Phone (585) 243-7550

Livingston County Development Review Committee

The LCDRD is a collaborative effort between County agencies including County Administration, Planning Dept. Economic Development, DOH, Workforce Development, and County Highway Department. Primary objective is coordination and sharing of information related to development projects across the County. Other County agencies and local municipalities are included as project specifics warrant.

1. Coordination between County staff and municipal officials.

2. Foster better communications and coordination between County and municipal planning entities.

3. Build continuity across planning trends and objectives between the local and county-wide scales.

4. Build technical expertise at the municipal level.

5. Improve and streamline local development/variance reviews through better understanding and consideration of existing codes and ordinances guiding the decision process.

Point of Contact – Livingston County Development Review Committee

Primary point-of contact is:

Livingston County Planning Department
Planning Director
Phone (585) 243-7550

Municipalities

Erosion and Sedimentation Control Law

Through the Erosion and Sedimentation Control Law (Town and Village of Livonia, and Towns of Conesus, Geneseo and Groveland), municipal Code Enforcement Officers (CEOs) provide the following:

1. Site inspections to ensure compliance with municipal stormwater-related regulations/ordinances.
2. Landowner/developer compliance with floodplain encroachment/development.
3. Outreach to the general public regarding prevailing municipal codes and applicable state/federal guidance governing floodplain development, land disturbance, stormwater management and permitting requirements.
4. Erosion and Sediment Control Plan/Permit:
    a. Erosion and Sediment Control Permit is required for all projects disturbing greater than 500 square feet of land.
    b. Erosion and Sediment Control Plan is required for projects exceeding 10,000 square feet of land disturbance.
    c. Evaluates impacts of project upon flood elevations, floodplain encroachments and developments.
    d. Ensures adequate erosion & sedimentation control BMPs are included as needed in projects.

Municipal Planning Board and Zoning Board of Appeals

1. Ensure that standards of existing codes and ordinances, including floodplain development, are addressed in proposed development plans
2. Per Erosion and Sediment Control Law (Towns of Conesus, Geneseo, Groveland, and Sparta), consult with Conesus Lake Watershed Inspector to solicit technical review comments and recommendations on stormwater-related aspects of site development plans or variance requests prior to rendering approvals/decisions.

Points of Contact - Municipalities

Primary points-of contact are:

1. Town of Conesus
   Code Enforcement Officer
   Phone (585) 346-3130

2. Town of Geneseo
   Code Enforcement Officer
   Phone (585) 991-5008

3. Town of Groveland
   Code Enforcement Officer
   Phone (585) 243-1750

4. Town & Village of Livonia
   Code Enforcement Officer
   Phone (585) 346-2098

5. Town of Sparta
   Code Enforcement Officer
   Phone (607) 335-9290

Livingston County Soil & Water Conservation District (SWCD)

SWCD provides the following functions to support watershed/stormwater management in the Conesus Lake Watershed:

1. Provide technical support to County and municipal staff related to stormwater practices including:
   a. Streambank stabilization.
   b. Roadway/road ditch maintenance programs.
   c. Riparian buffer and shoreline stabilization initiatives.
   d. Nutrient management.
2. Assist Conesus Lake Watershed Inspector, Conesus Lake Watershed Manager and municipal CEOs with site visits regarding:
   a. Project impacts to streams and shorelines.
   b. Impact avoidance and/or reduction alternatives.
   c. Educational outreach/stewardship.

Point of Contact – Livingston County SWCD

Primary point-of contact is:

Livingston County SWCD
District Manager
Phone (585) 243-0043

COMMON STREAM & STORMWATER-RELATED ISSUES AND PROJECTS

Sediment Deposition at the Mouth of Streams

Sediment deposition at the mouth of creeks is a natural process, exacerbated by intervention measures (such as modifications to stream channels and streambanks) that fail to consider impacts to stream process. Historic and ongoing impacts to streams that promote disruption of normal erosion and sediment-delivery regimes and process contribute to the accelerated deposition of sediments at the mouths of streams where they meet Conesus Lake.

1. Contributing causes:
    a. Lower (downstream portions) of tributary stream systems occupy alluvial fans.
    b. Geomorphic setting of the watershed promotes natural erosion of steeper upstream landscape/deposition in downstream sections of streams:
        i. Naturally-conducive to delta formation.
        ii. Alluvial fans and deltas are natural areas of sediment/debris deposition and storage.
    c. Development activities in the watershed exacerbate the rate and extent of the sediment delivery process:
        i. Undersized bridges and culverts.
        ii. Land clearing/cover type conversion (particularly depletion of riparian buffers).
        iii. Lateral confinement of streams:
            · Placement of fill in floodplain to accommodate near-stream construction.
            · Vertical structures placed on both sides of stream to reduce streambank erosion without floodplain access to either side:
                o Concrete walls, timber retaining walls, metal sheet piling, bridge and culvert abutments.
    d. Management or maintenance practices that lack adequate consideration of stream process and resulting impacts:

i. Dredging, particularly at the mouth of streams:

- Lowers base elevations of the streambed beyond stable streambed depth.
- Alters localized streambed slopes.
- Initiates and promotes upstream headcuts.
- Accelerates rate and extent of upstream bed scour and bank erosion/failure.
- Increases the rate and extent of re-deposition at the mouth of stream.

ii. Roadway ditch maintenance:

- Incision of ditches confines stormwater flow, raising erosion potential of the flow.
- Annual removal of vegetation from ditches without revegetation removes roughness factor:
  - Higher velocity and lack of root mass elevates sediment delivery from ditches to receiving stream.

e. Increased impervious cover in the watershed:

i. Reduced time of concentration to receiving stream.

2. Solutions:

a. Sediment deposition at the mouth cannot be stopped, only slowed to something approximating a more natural rate:

i. Localized dredging should be as minimal as possible to prevent triggering of undesirable adjustment/response scenarios.

b. Longer-term solution is holistic, addressing causes:

i. Exacerbated sediment deposition at the mouth is a symptom.

ii. Modifications to the stream system and its watershed, from headwaters to mouth, are the root cause of the exacerbated condition.

3. Action items:

a. Education and outreach:

i. Take a proactive approach to reaching landowners at the mouths of creek.

- Inform them of the natural tendency for sediment to deposit at the mouth of the creek.

- Develop a training program for County/municipal staff and the public to better understand stream processes and typical adjustment/response scenarios to more effectively relay information and recommendations to private landowners.

ii. Localized dredging at the mouth should be as minimal as possible:

- Determined by appropriate base elevation of streambed to promote localized maintenance of streambed elevation.
- Do not over-deepen excavations in attempt to provide more sediment capacity or achieve water depths for recreation, etc.
- NWP 19 (USACE) may be applicable to minor dredging project, depending on scope.
    - Establishes limits and thresholds for extent of dredging allowable.

iii. Reduce sediment delivery from upstream sources:

- Stream restoration/channel stabilization:
    - Promote floodplain connectivity instead of channel confinement.
    - Grade control to prevent headcut development/advancement.
- Streambank stabilization:
    - Protect toe of slope adjacent to hillslope failures.
    - Reconnect floodplains.
    - Improve vegetative density along streambanks/riparian buffers.

iv. Evaluate hydraulic openings of existing bridges and culverts:

- Identify undersized crossings.
- Ensure through planning and design processes that new crossings (once they are up for replacement) are adequately sized to allow for water/sediment/debris conveyance.

v. Improved stormwater management strategies at the watershed-scale:

- Green Infrastructure
- Detention/Retention
- Buffer Enhancement

4. Regulatory considerations (Permitting):

    a. Disturbance to the shoreline or bottom of the lake or stream mouth below mean high water mark elevation (such as dredging of sediment) will require a NYSDEC Article 15 permit.

    b. Depending on the linear extent of the proposed project, the work may require a Nationwide Permit from USACE, as well as a Water Quality Certification through NYSDEC.

5. Primary points-of-contact:

    - NYSDEC Region 8 - Regional Permit Administrator
      Phone (585) 226-5400; Fax (585) 226-2830

    - USACE Buffalo District Office - Regulatory Branch
      Phone (716) 879-4330

Streambank Erosion and Hillslope Failure

1. Contributing causes:

    a. Lower (downstream portions) of tributary stream systems occupy alluvial fans.

    b. Geomorphic setting of the watershed promotes natural erosion of steeper upstream landscape/deposition in downstream sections of streams:

        i. Alluvial fans and deltas are natural areas of sediment/debris deposition and storage.

        ii. Streams naturally adjust laterally in response to sediment deposition and localized reduction of stream slope.

            · Lateral adjustment is expressed through streambank erosion.

    c. Development activities in the watershed exacerbate the rate and extent of the sediment delivery process

        i. Lateral confinement of streams.

        ii. Placement of fill in floodplain to accommodate near-stream construction.

        iii. Vertical structures placed on both sides of stream to reduce streambank erosion without floodplain access to either side.

            · Concrete walls, timber retaining walls, metal sheet piling, bridge and culvert abutments.

            · Channel confinement increases tendency for bed scour, which undermines streambanks and accelerates bank erosion/hillslope failure.

d. Management or maintenance practices that lack adequate consideration of stream process and resulting impacts:

   i. Dredging, particularly at the mouth of streams.

   ii. Channelization.

   iii. Breakwalls, sheet piling, vertical concrete walls.

   iv. Disconnection of floodplains.

      · All of these activities accelerate rate and extent of upstream bed scour, lower bed elevations and undermining streambanks, exacerbating bank erosion and hillslope failure.

      · Sediment from increased bed, bank, and hillslope erosion is deposited downstream, inducing lateral adjustment and more bank erosion.

e. Increased impervious cover in the watershed:

   i. Reduced time of concentration to receiving stream.

   ii. Higher flow velocities, more erosion potential.

   iii. Once the stream begins to incise (downcut) it becomes increasingly more confined, continually making the streambed and banks ever more susceptible to erosion.

2. Solutions:

   a. Streambank erosion is a natural process, exacerbated by:

      i. Stream "management" and streambank stabilization measures that fail to consider impacts to stream process and consequences of sediment through the entirety of the stream system/lakeshore.

      ii. Past and present impacts to streams that promote disruption of normal erosion/sediment-delivery regimes and process.

   b. In most instances, streambank erosion is a symptom of some other impact, or consequence of the cumulative effect of a range of impacts at the local- and watershed-scale.

   c. Longer-term, sustainable solutions are holistic, addressing causes as well as symptoms.

3. Action items for consideration:

   a. Education and outreach:

      i. Develop proactive strategies, take proactive approaches to engaging streamside landowners.

- Proactively develop and present educational resources to streamside landowners.
    - Stream process, sediment transport and natural stream adjustment/response scenarios.
    - Stewardship.
    - Impacts of historical stream interventions.
    - Floodplain function and importance.
    - Riparian buffer function and importance.
- Develop a comprehensive stream and floodplain stewardship/management training program for municipal planning board, ZBA, highway department staff and CEOs.
- Make technical staff (through Planning Department/Technical Assistance) available to provide guidance to municipalities and private landowners in the formative stages of streambank stabilization projects.
    - Maximize overall benefits of project.
    - Maximize longevity and performance of project.
    - Minimize impacts to other portions of the stream system.
    - Advise on necessary permitting and approvals for projects.

b. Reduce sediment delivery from upstream sources:

i. Stream restoration/channel stabilization:

- Identify and prioritize critical streambank erosion and unstable stream reaches throughout the tributary system contributing to Conesus Lake.
    - These serve as sediment sources triggering downstream sediment erosion and deposition scenarios.
- Promote floodplain connectivity instead of channel confinement.
    - Work with streamside landowners, highway departments and developers to identify alternative stream management approaches on a case-by-case basis that reduce the erosive potential of streams by reconnecting streams to their floodplains.
- Grade control to prevent headcut development/advancement.

- Identify stream reaches where streambed scour is a significant source of downstream sediment deposition and install measures in the streambed to reduce the scour potential.

ii. Streambank stabilization:

- Develop a comprehensive Stream Management Plan for the entire Conesus Lake Watershed, with prioritized focus on the following:
  - Stabilizing sediment supply sources associated with streambank erosion and stream channel instability.
  - Stabilizing steep, eroding hillslope failures adjacent to streams.
  - Reconnect floodplains where feasible, such as through reducing streambank heights and steepness.
  - Improve vegetative density along streambanks by installing, enhancing and protecting robust native riparian buffers.
  - Establish specific technical review protocols or assistance to ensure development projects do not translate to increased negative impacts to upstream and downstream landowners, residences, infrastructure, or the Lake.
    - This function could be provided as an advisory service by the Livingston County Development Review Committee.

c. Evaluate hydraulic openings of existing bridges and culverts:

i. Identify bridges and culverts that may be too small to adequately convey flood waters.

ii. Ensure through planning and design processes that future replacement of existing bridges/culverts are adequately sized to allow for water/sediment/debris conveyance.

- Bridges and culverts should be designed to maintain floodplain connectivity upstream and downstream of the crossing.

d. Promote Improved stormwater management strategies across the Conesus Lake Watershed:

i. Green infrastructure.

ii. Detention/retention.

iii. Riparian buffer establishment, enhancement, and protection.

4. Regulatory considerations (Permitting):

    a. All waters of the state are provided a class and standard designation based on existing or expected best usage of each water or waterway segment. Classification C is for waters supporting fisheries and suitable for non - contact activities. All streams draining to Conesus Lake are Class C and non-navigable by NYSDEC definition. NYSDEC Stream Disturbance permitting is not required for excavation/fill below Ordinary High Water Mark. It should be noted that the inlet, a small section of North McMillan Creek and the mouths of streams up to the mean high water interval are navigable, and are subject to Article 15 permitting.

    b. All streams and their tributaries draining to Conesus Lake are categorized as "Waters of the U.S." and require federal authorization through USACE prior to proceeding with work. Authorization may be by waiver or by permit (typically NWP), depending on the extent and character of work.

        i. Consultation with USACE is required to determine permitting requirements on a project-by-project basis.

        ii. If a USACE permit is required, a Water Quality Certification from NYSDEC is required as well.

5. Primary points-of-contact:

    - USACE Buffalo District Office - Regulatory Branch
      Phone (716) 879-4330

    - (for Water Quality Certification, if USACE permit required)
      NYSDEC Region 8 - Regional Permit Administrator
      Phone (585) 226-5400; Fax (585) 226-2830

Bridge/Culvert Obstruction

1. Contributing causes:

    a. Accelerated bank erosion, attributable to causes similar to streambank erosion/sediment deposition processes and scenarios:

        i. Undermining and collapse of standing trees along streambank.

            · Higher velocities and flood elevations attributed to stream channel confinement, disconnection of floodplains, development in floodplains, impervious cover increases.

                - All contribute to reduced time-of-concentration.

        ii. Undersized bridges and culverts.

            · Structures may have been undersized when installed.

- Runoff/streamflow regimes may have increase over time since installation (due to land use change, development in watershed, etc.), overwhelming the original structure conveyance capacity.
- Excessive deposition of sediment from streambank erosion, streambed scour, roadway ditches, etc. might partially obstruct hydraulic opening of structure

iii. Use of streambank areas for disposal of yard waste and other refuse.

- Laterally confines channel, disconnects floodplain (higher flood velocity)
- Adds additional debris supply to flood flows
- Disposal of unusable woody materials (tops, pulpwood, etc.) from logging operations within the active floodway/floodplain.

2. Solutions:

a. Ensure culverts and bridges are properly-sized to current-day flood and sediment regimes.

i. Providing increased hydraulic capacity at bridges and culverts (i.e. larger structures with bigger openings) typically leads to lower floodwater elevations upstream and downstream, reducing flood risk. Evaluating impacts of bridge/culvert sizing upon post-construction flood elevations to ensure existing flood elevations are either maintained or reduced is an inherent part of the engineering design process.

- Promote solutions and action items outlined to reduce streambank/streambed erosion.
- Consider indirect (but significant) impact of planning/zoning decisions and approvals upon stream corridor stability and flood/sediment regimes, and the consequences of these impacts potentially increasing the likelihood and occurrence of downstream bridge/culvert obstruction.

3. Action items for consideration:

a. Education and outreach:

i. Develop proactive strategies, take proactive approaches to engaging landowners in areas historically or potentially impacted by flooding associated with bridge/culvert obstruction.

ii. Proactively develop and present educational resources to streamside landowners:

- Stewardship.

- Impacts of historical stream interventions.
- Floodplain function and importance/reduce encroachments.
- Debris management in and around stream corridors.

b. Develop an inventory of culverts and bridges in the watershed to document sufficient/insufficient hydraulic capacity, sediment loading/obstruction potential, and potential for obstruction based upon upstream/watershed conditions.

   i. Funding assistance may be available through FEMA if bridge/culvert obstruction and resultant flooding is identified in the County's Hazard Mitigation Plan.

c. Reduce sediment delivery from upstream sources.

   i. Stream restoration/channel stabilization.

   ii. Streambank stabilization.

   iii. Improved stormwater management strategies at the watershed-scale.

4. Regulatory considerations (Permitting):

   a. All streams draining to Conesus Lake are Class C and non-navigable by NYSDEC definition. NYSDEC Stream Disturbance permitting is not required for excavation/fill below Ordinary High Water Mark associated with bridge and culvert maintenance. It should be noted that the inlet, a small section of North McMillan Creek and the mouths of streams up to the mean high water interval are navigable, and are subject to Article 15 permitting.

   b. All streams and their tributaries draining to Conesus Lake are categorized as "Waters of the U.S." and require federal authorization through USACE prior to proceeding with excavation/fill below Ordinary High Water Mark associated with bridge and culvert maintenance.

   c. USACE authorizations are required prior to proceeding with bridge/culvert replacement or maintenance work that includes cut or fill below Ordinary High Water Mark.

      i. Some municipal entities (such as Livingston County Highway Department) hold open-ended USACE permits/NYSDEC Water Quality Certification to allow for routine maintenance within defined thresholds of disturbance (length of stream, depth of excavation, finished elevation and grade, etc.)

         - Authorization for bridge/culvert maintenance projects not covered by standing maintenance permits are typically covered by NWP #3 and Water Quality Certification (from NYSDEC).
         - Authorization may be by waiver or by permit (typically NWP), depending on the extent and character of work.
         - Consultation with USACE is required to determine permitting requirements on a project-by-project basis.

- If a USACE permit is required, a Water Quality Certification from NYSDEC is required as well.

5. Primary points-of-contact:

   - USACE Buffalo District Office - Regulatory Branch
     Phone (716) 879-4330

   - (for Water Quality Certification, if USACE permit required)
     NYSDEC Region 8 - Regional Permit Administrator
     Phone (585) 226-5400; Fax (585) 226-2830

Steep-Slope Development

1. Issues and contributing causes:

   a. High property value/demand drives development on small lots.

   b. Watershed topography (steep slopes in close proximity to the lake) translates to greater likelihood of steep-sloped properties being developed across the Watershed.

      i. Higher runoff rates/lower infiltration.

      ii. Need to remove trees greatly reduces interception of rainfall.

      iii. Lots are often too small to accommodate structural stormwater management measures/structures.

      iv. Existing standards require E&S plan review for development sites >0. 5 acre.

         - Many lots are smaller than the threshold for E&S plan review.

      v. NYSDEC requires a Stormwater Pollution Prevention Plan (SWPPP) and General Permit for Stormwater related to Construction Activities for development sites that disturb >1.0 acre of land.

         - Nearly all developments in the watershed fall under this threshold, so no SWPPP required.

      vi. Municipalities must evaluate impacts of stormwater-related issues and impairments to the Lake associated with steep slope development.

2. Solutions:

   a. Provide municipalities with mechanisms to make effective and responsible decisions and the planning/ZBA level:

      i. Better understanding of existing stormwater/development-related codes and ordinances.

      ii. Better understanding of the basis for, and intent of, existing codes and ordinances.

- Understand from a technical perspective the impacts that can result as a consequence or deviation from existing regulatory standards.
- County Development Review Committee.
- LET'S Plan training session.

iii. Recommendations to enhance or strengthen existing codes and ordinances.

3. Action items for consideration:

a. Education and outreach:

i. Continue proactive outreach and coordination efforts between County Planning and municipal planning /ZBA to build technical capabilities at the municipal level.

- Clear understanding of standards and regulations included in the Erosion and Sediment Control Law (Towns of Conesus, Geneseo, Groveland, and Sparta).

ii. Proactively develop and present educational resources to steep slope landowners & developers.

b. Consider more comprehensive regulations at the municipal level to require aspects of a SWPPP such as more extensive BMP planning/design and Post-Construction Stormwater Management Practices for small lots.

i. Development of many small lots (which currently falls under the threshold of SWPPP requirements) is equally impactful to the Lake as development of a single large lot.

c. Develop recommendations for more applicable review and approval mechanisms for small-lot developments.

d. Provide protocols/Standard Operating Procedure for more proactive review and technical assistance on-site during development of small lots and steep slopes.

i. Technical guidance from plan submittal/review stage through approval and construction of these types of development projects.

- Municipal CEOs
- Livingston County Watershed Inspector
- Livingston County Watershed Manager

4. Regulatory considerations (Permitting):

a. NYSDEC requires a Stormwater Pollution Prevention Plan (SWPPP) and General Permit for Stormwater related to Construction Activities for development sites that disturb >1.0 acre of land.

b. Regulatory requirements for projects disturbing less than 1 acre are established at the municipal level.

i. Driven primarily by standards of the Erosion and Sediment Control Law in Towns of Conesus, Geneseo, Groveland, Livonia and Sparta.

ii. More information is available in the Overview of Existing Ordinances portion of the Toolkit document.

5. Primary point-of contact is:

Livingston County Planning Department
Planning Director
Phone (585) 243-7550

OVERVIEW OF JOINT PERMIT PROCESS

In New York, a Joint Permit Application (JPA) Form (APPEND) is used by the New York State Department of Environmental Conservation (NYSDEC), Office of General Services (NYSOGS), Department of State (NYSDOS), and the U.S. Army Corps of Engineers (USACE). The JPA form provides a mechanism for applicants to apply for required State and Federal permits for any project that impacts streams, waterways, waterbodies, wetlands, shorelines, streambanks, sources of water, and endangered and threatened species.

The JPA is a *joint application* for one of more required permits, not a *joint permit.* Each permit required for a given project is issued independently of the others by the agency administering that permit. Each permit may include special conditions to be met by the permittee (or project owner) pertaining to the specific activities or aspects of the project authorized by that permit. The primary benefit of the JPA process, both to the applicant and the regulatory reviewer/permit issuer, lies in the elimination of redundant information typically necessary to satisfy each of the permits required for a given project. Each piece of pertinent and required information is provided once in the JPA, instead of reproduced multiple times for each permit (as if applied for independently).

The following provides a model of how the JPA process is specifically applied in the Conesus Lake Watershed. Because no two projects, their scopes of work and corresponding impacts are exactly similar, this synopsis relies on some generalized scenarios. A highly critical step to determining how the JAP process might apply to any given specific project is covered below in discussion of the Pre-application Meeting.

Pre-application Meeting

The most effective way to identify and verify which permits are required for a project is to request a pre-application meeting (on-site if possible) with USACE and NYSDEC and municipal representatives, as detailed below. This is a free service offered by state and federal government to streamline and simplify the permit application, review, and issuance processes for both the applicant and the regulatory agencies.

Once the conceptual aspects of a project have been developed to the point where the location, type, and extent of impacts to streams, waterways, waterbodies, wetlands, shorelines, streambanks, sources of water, and/or endangered and threatened species can be adequately estimated, a pre-application

meeting should be held with representatives of USACE and NYSDEC. The pre-application serves a number of benefits that are highly beneficial to the permittee/project owner. These include:

1. Opportunity to present the project intent and conceptual approach at the outset to the individuals that are directly responsible for reviewing the JPA, and ultimately for issuing the various permits required.

2. Opportunity to determine firsthand from the permit administrator what disturbance thresholds are permittable.

3. Opportunity to review with the permit administrator the project need, measures considered to avoid or minimize impacts, and the types and quality of jurisdictional resources to be impacted by the project.

4. Opportunity for the permit administrator to determine, through firsthand review of the project limits, setting and potential impacts, which permit(s) are required to appropriately authorize the work.

5. Opportunity to identify any specific elements, measures, or information the permit administrator needs to see included in the project design plans and/or permit application materials.

6. Opportunity to review potential permit review periods and estimate permitting timelines.

All of these opportunities benefit the permittee by removing much of the guesswork involved with proceeding through the permit application process without a pre-application meeting. The permittee should leave the meeting with a clear understanding of which permits are required for the project, and what information is required in the JPA to allow the permit administrator to review the application and administer the necessary permit(s), and an estimated review time.

To promote continuity between state/federal and local permitting, it is recommended that the CEO also be in attendance at the pre-application meeting. Not only are the benefits relevant to the specific project, but it is also a great way for the CEO to build their technical understanding of the relevant state & federal permits and processes.

A pre-application meeting should always be held at the project site, if practicable. The meeting should be held once sufficient information about the project has been gathered and put on paper to adequately identify the project type, extent, scope and potential stream & lake-related impacts.

To schedule NYSDEC & USACE attendance at pre-application meeting, contact the NYSDEC permit administrator and USACE Buffalo District Regulatory Branch. If an in-person pre-application meeting is not possible within given time constraints, request a pre-application conference call and provide project materials in advance via email.

For activities in and along <u>Tributary Streams</u> draining to Conesus Lake (and the contributing watershed area):

All streams draining to Conesus Lake are Class C streams and do not meet the NYSDEC definition of navigable. Therefore, in portions of those streams far enough upstream to be above the mean high water elevation, NYSDEC Article 15 permits are not required for activities in those streams in regard to:

1. Stream Disturbance (of the streambed or banks)

2. Excavation and Fill in Navigable Waters

By jurisdictional rule, activities that occur in the downstream portions of these tributary streams and their confluence with the Lake (i.e. the mouth of the stream and adjoining immediate upstream portion of the channel) below the mean high water elevation are considered impacts to the Lake resource, and as such require permit authorization prior to proceeding. Activities at/near the mouths of the tributaries that include excavation, placement of fill, and/or disturbance of the streambed or streambanks require a NYSDEC Article 15 Protection of Waters permit.

Disturbance to state-regulated wetlands and their protected buffers require a NYSDEC Article 24 Freshwater Wetlands permit. State regulated wetlands are typically wetlands 12.4 acres in size or greater and include a 100' protected adjacent area (buffer) outside of the wetland boundary.

Projects resulting in excavation or fill within Waters of the US (WOTUS) below the OHWM are subject to jurisdiction of USACE. This pertains to any portion of tributary streams draining to Conesus Lake or any wetlands (regardless of their size)

For the JPA process, a water resources delineation may be required (this may be determined by the pre-application meeting) and the applicant may indicate that the proposed activity falls under jurisdiction of the Rivers and Harbors Act (Section 10) or the Clean Water Act (Section 404). Once the Joint Application is submitted, USACE will typically determine the applicable permit(s) necessary to authorize the proposed activity.

1. USACE will determine whether a federal permit is required for the proposed project. This determination is based upon the regulatory thresholds for disturbance identified in the attached NWP summary sheet for each type of activity/project.

2. If a USACE Nationwide Permit is required for the project, a Water Quality Certification (Section 401 Clean Water Act) is also required.

    a. Water Quality Certification is administered through NYSDEC, and additional review by NYSDEC may be required depending on impact thresholds.

For activities in or along Conesus Lake, it's shoreline and mouths of tributary streams below the Mean High Water Elevation of 820.79 feet above sea level (asl):

Conesus Lake is Class AA waterbody. As such, any of the following activities occurring below the Mean High Water Elevation require a NYSDEC Article 15 Protection of Waters permit:

1. Disturbance of the Lake bed, banks or shoreline

2. Excavation or Placement of Fill**

3. Docks, moorings or platforms

4. Impoundment structures

** Excavation includes dredging activities in the Lake proper or at the mouths of tributary streams

** Placement of fill includes installation of shoreline protection or structural erosion control measures such as, but not limited to, concrete walls, breakwalls, rubble, rock or riprap, sheet-piling, culverts, wooden retaining walls or log cribbing.

Projects resulting in excavation or fill within Conesus Lake below the Mean High Water Elevation are subject to jurisdiction of USACE.

Again, the applicant is required only to identify whether the proposed activity falls under jurisdiction of the Rivers and Harbors Act (Section 10) or the Clean Water Act (Section 404). Once the Joint Application is submitted, USACE will typically determine the applicable permit(s) necessary to authorize the proposed activity.

The NWP summary sheet included with this toolkit document identifies which types of activities fall under Rivers and Harbors or Clean Water Act.

USACE will determine whether a federal permit is required for the proposed project. This determination is based upon the regulatory thresholds for disturbance identified in the attached NWP summary sheet for each type of activity/project.

If a USACE Nationwide Permit is required for the project, a Water Quality Certification (Section 401 Clean Water Act) is also required. (Water Quality Certification is administered through NYSDEC.)

Table 1. Summary matrix of State and Federal Permit requirements form excavation or fill below OHWM/MHWM; Conesus Lake and tributary streams.

	NYSDEC Class.	Excavation or fill below OHWM/MHWM requires:		
		NYSDEC Article 15 Permit	Section 10/404 USACE NWP (or Individual Permit)	Section 401 Water Quality Certification (NYSDEC)
Conesus Lake and shoreline (*below MHWM of 820.79'*)	AA	Yes	Yes	Yes
Tributary streams draining to Conesus Lake (*portion below MHWM 820.79'*)	AA	Yes	Yes	Yes
Tributary streams draining to Conesus Lake (*portion upstream of MHWM 820.79'*)	C	No	Yes	Yes

Note: other permits may be required for regulated activities other than excavation or fill below OWHM, including wetland disturbance, etc. Consultation with regulatory agencies to confirm permit requirements for any specific project is strongly recommended.

The Application Process

A JPA should not be compiled and submitted until sufficient detail regarding the project scope and its impacts to wetlands ad water resources below Ordinary High Water Mark (for tributary streams) or Mean High Water Mark (Conesus Lake) can be quantified. Required materials to be submitted with the JPA are determined through consultation with NYSDEC and USACE at the pre-application meeting and through directions provided in the Joint Permit Application Form and Instructions for Completion.

The NYSDEC/USACE Joint Permit Application form is available online through the USACE Buffalo District at the following address:

> http://www.lrb.usace.army.mil/Portals/45/docs/regulatory/Application/jointapp.pdf?ver=2016-08-23-092332-070 – Joint Permit Application Form (Fillable PDF)
>
> http://www.lrb.usace.army.mil/Portals/45/docs/regulatory/Application/jntappinstruc.pdf?ver=2016-08-23-092447-553 – Instructions for completing Joint Permit Application Form

And through the NYSDEC Regional Office at the following address:

> http://www.dec.ny.gov/docs/permits_ej_operations_pdf/jointapp.pdf - Joint Permit Application Form (Fillable PDF)
>
> http://www.dec.ny.gov/docs/permits_ej_operations_pdf/jntappinstruc.pdf - Instructions for completing Joint Permit Application Form

As indicated on the JPA Form, the applicant is required to submit the JPA package (comprised of the JPA Form and all required supporting information such as drawings, narratives, clearance letters, etc.) to both USACE and NYSDEC. Two copies are to be mailed to NYSDEC. One copy to other regulatory agencies. Specific regulatory staff to submit the JPA package to are identified either at the pre-application meeting or through direct correspondence with the NYSDEC Region 8 Regional Permit Administrator and USACE – Buffalo District Regulatory Branch.

The Review Process

Once received by the permit agencies, the JPA is reviewed first for "Administrative Completeness". This is, in essence, an initial screening to verify all required pieces of information are present in the package. It is simply a checklist to ensure all submittal components have been provided. It is not a review of the quality, comprehensiveness or technical adequacy of those elements, just a confirmation that they have been included in the JPA package.

If all required elements are present in the JPA package, notice will be provided to the applicant informing that the submittal is "Administratively Complete". If required pieces of information are missing, the permittee is notified. Technical review of the permit application does not begin until Administrative Completeness is met.

NYSDEC is afforded 15 days from date of receipt of the JPA package to determine administrative completeness.

USACE is afforded 30 days from date of receipt of the JPA package to determine administrative completeness for Nationwide Permit. There is not a specific timeframe for individual permit applications.

If no determination of administrative completeness is made within these timeframes, administrative completeness is assumed by default, and technical review begins.

The time required by the regulatory agencies to complete technical review of the JPA package and is highly variable, and influenced by:

1. Complexity of the project and the type, extent, and magnitude of impacts to regulated water resources.

2. Public notice and review requirements.

3. The number of permits required to authorize all the various types of impacts, their extents and magnitude.

4. Degree of familiarity the reviewer has with the project site, prevailing conditions, and the general scope of, and justification/need for the project. Another good reason to have a pre-application meeting on-site prior to preparing and submitting a JPA.

5. Technical quality, adequacy, thoroughness and accuracy of the information provided in the JPA package.

6. Workload and backlog of the reviewer.

7. Whether the project objective is to prevent or reduce imminent risk to personal safety, property or infrastructure.

    a. If the reviewer has significant technical-based questions related to the type or extent of proposed activities and their impacts, a Request for Additional Information (RAI) is issued to the applicant.

    b. Issuance of an RAI can delay the review process until satisfactorily addressed by the applicant.

Issuance of Permit(s)

Once all required information has been provided to the agencies and deemed sufficient to satisfy the regulatory thresholds and conditions of the permits being applied for, the project will be authorized through the issuance of one or more permits. Again, the JPA is only a consolidated application mechanism; various types of impacts associated with the project may be authorized through multiple types of permits administered by NYSDEC and/or USACE. Once all permits are received by the permittee, work may begin on the project. Permit conditions typically note that the work must be carried in strict conformance to the plans and other materials submitted with the JPA.

Variations from the plans or other project-related materials included in the JPA must be verified through consultation with the regulatory agency with jurisdiction over the aspect of work being modified.

Issuance of permits typically includes project-specific Special Conditions to be met during the work. These can include such elements as requirements for construction oversight by a qualified specialist, periods of time during which no work is permitted within the waterbody (to protect fish spawning, for example) or specific zones within the work area off limits to disturbance due to unique resources, etc.

APPLICABLE FEMA PROGRAMS

Relevance of programs administered through the Federal Emergency Management Agency (FEMA) to the Conesus Lake Watershed apply specifically to the following initiatives:

The National Flood Insurance Program (NFIP)

For a community to participate in the National Flood Insurance Program, it must adopt and enforce floodplain management regulations that meet or exceed the minimum NFIP standards and requirements.

Review of existing municipal codes and ordinances shows that all municipalities within the Conesus Lake Watershed maintain existing floodplain regulations that comply with NFIP minimum standards.

The NFIP requirements are listed in Chapter 44 of the Code of Federal Regulations (44 CFR). Most relevant requirements relative are listed in Parts 59 and 60.

At a minimum, NFIP requires adherence to the following general FEMA rules. The municipality may choose to enforce, through local ordinance, standards more stringent than the minimum criteria established by each rule:

1. *The municipality must use the most latest version of flood data and flood mapping published by FEMA.*
    a. For determination of floodplain boundaries and flood zones, base flood elevations (BFE), floodway boundaries and Special Flood Hazard Areas (SFHA).
2. *A local (municipal) permit is required for all development within the SFHA depicted on the Flood Insurance Rate Map (FIRM).*
    a. Per 44 CFR 59, "Development" means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.
    b. Some activities requiring a floodplain permit include:
        i. Construction of new structures.
        ii. Modifications or improvements to existing structures.
        iii. Excavation.
        iv. Filling.
        v. Modification of existing drainage patterns/systems.
        vi. Driving of piles.
        vii. Dredging.
        viii. Land clearing/cover type conversion (woods to lawn, for example).
            · Grading
            · Permanent storage of materials and/or equipment

c. Federal law requires all municipalities eligible for NFIP to ensure that all state and federal permits required for a project have been obtained by the permittee (project owner).

i. Municipalities should not approve and issue a local floodplain disturbance permit until all state and federal permits have been received, or at least applied for, by the permittee.

ii. Part A2 of this Toolkit Document provides detailed overview of state and federal permits that may be required for various types of stream, lake, and floodplain disturbance activities.

3. Development must not increase the flood hazard on other properties.

a. Applies mostly to floodplain projects along streams.

b. Municipalities must regulate development in the floodway to ensure that there are no increases in upstream or downstream flood elevations.

i. A floodway map is included with most riverine Flood Insurance Studies (FIS).

ii. Municipal floodplain management ordinance should include adoption of a "Regulated Floodway" within which jurisdiction of floodplain management/development standards apply.

If the municipality has adopted (through ordinance) a "Regulated Floodway":

i. By law, municipality must prohibit encroachments within the adopted Regulated Floodway.

· Includes fill, new construction, substantial improvements, and other types of development listed above.

ii. Encroachments in the Regulated Floodway can be permitted by municipality if hydrologic and hydraulic analyses by a licensed engineer demonstrates that the encroachment would not result in any increase in flood levels anywhere within the community during the base flood.

· To document that this analysis has been completed, municipalities should consider including a "No-Rise Certification" from a registered Professional Engineer as a required component of their local floodplain ordinance/permit application. An example is provided below.

· Regardless of whether an increase to BFE results, development in floodplains should be discouraged due to potential flood-related risk of damage and loss.

If the municipality has not adopted a "Regulated Floodway":

i. Municipality must ensure that until a Regulated Floodway is adopted no (fill, new construction, substantial improvements, and other types of development

as defined above) shall be permitted within Zones A1-30 and AE (shown on the Flood Insurance Rate Map (FIRM).

ii. Such development can be permitted, if it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

iii. Municipalities can consider permitting an encroachment in the floodway or the floodplain that will cause increases in the BFE in excess of the allowable level, so long as:

- Municipality applies to the FEMA Regional Office for conditional approval and a Conditional Letter of Map Revision (CLOMR).
- FEMA approval (including approval of CLOMR) must occur prior to municipal issuance of local floodplain permit.

"NO-RISE" CERTIFICATION

This is to certify that I am a duly qualified registered professional engineer licensed to practice in the State of _____

It is further to certify that the attached technical data supports the fact that proposed _____ (Name of Development) will not impact the 100-year flood elevations, floodway elevations, or floodway widths on _____ ___ (Name of Stream) at published sections in the Flood Insurance Study for ___ _____ (Name of Community) dated _____ (Study Date) and will not impact the 100-year flood elevations, floodway elevations, or floodway widths at unpublished cross-sections in the vicinity of the proposed development.

Attached are the following documents that support my findings:

_____

_____

Date: _____

Signature: _____

Title:_____ {SEAL}

Example No-Rise Certificate (From FEMA - North Carolina NFIP Coordinator)

4. *New, substantially improved or substantially damaged structures must be protected from damage by the base flood.*

a. Does not apply to any buildings not having at least two rigid walls and a roof.

i. Examples of exemptions are carports, pavilions, bleachers, etc.

b. Municipality must ensure that new construction of, or substantial improvement to, residential structures must have First Floor Elevation (FFE) (including basement) higher than the base flood elevation.

c. Municipality may permit new construction of, or substantial improvement to, non-residential buildings provided FFE is higher than the base flood elevation, or the structure is sufficiently floodproofed.

d. Municipalities should require verification of FFE higher than base flood elevation through "Elevation Certificate" for all new construction or substantial improvement to structures in the floodplain.

i. Elevation Certificate is provided by through survey of FFE by a licensed surveyor, verifying this elevation is above the BFE shown on the FIRM.

Other "Rule" Considerations

1. Subdivisions:

a. In the case of subdivisions, municipalities must not only comply with rules related to flood elevations, encroachments and development, but must also ensure structures themselves are resistant to flood damage.

b. Water and sewer systems:

i. Municipalities must require within that, within flood-prone areas, new and replacement water supply systems are designed to minimize or eliminate infiltration of flood waters into the systems.

ii. Municipalities must require within that, within flood-prone areas:

· New and replacement sanitary sewage systems are designed to minimize or eliminate infiltration of flood waters into the systems; and,

· Discharges from sanitary sewage systems and onsite waste disposal systems are located to avoid impairment to them or contamination from them during flooding.

Challenges to FEMA Flood Mapping

The public has a right to challenge whether all or portion of their property lies within the mapped SFHA, in the following instances:

1. It is believed that the mapped SFHA may include portions of the property known as "inadvertent inclusions" that are in fact at or above BFE.

a. Map change through a Letter of Map Amendment (LOMA).

2. Placement of fill on the property subsequent to conducting of the flood study is believed to result in areas now being at or above BFE, that were below BFE at the time the flood study was conducted.

a. Map change through a Letter of Map Revision Based on Fill (LOMR-F).

3. In most cases, the applicant will need to hire a Licensed Land Surveyor or Registered Professional Engineer to prepare an Elevation Certificate for the property.

4. Elevation Certificate verifies the actual elevation of the area in question, and whether or not it is below BFE.

5. See https://www.fema.gov/letter-map-amendment-letter-map-revision-based-fill-process for more information on the map revision process.

The information provided above provide an overview summary of the minimum FEMA rules that municipalities are required to comply with in order for the municipality and its residents to qualify for coverage under the Nation Flood Insurance Program. Attachment A to this document (*The NFIP Floodplain Management Requirements*) provides a much more comprehensive and in-depth discussion of these rules, including legal definitions and references detailed overview of the floodplain management requirements, example scenarios, exceptions, and applicability. It is highly-recommended that anyone interested in, or charged with, the administration and enforcement of these rules, including Code Enforcement Officers (CEOs), municipal planning board/ZBA members, and planning/review officials should review this more detailed source of information.

Attachment A is an excerpt from the more encompassing technical resource "*Managing Floodplain Development through the National Flood Insurance Program*" - https://www.fema.gov/media-library-data/20130726-1535-20490-8858/is_9_complete.pdf

Hazard Mitigation Assistance (HMA) Program

FEMA funds three Hazard Mitigation Assistance (HMA) grant programs. Hazard mitigation measures are any sustainable action taken to reduce or eliminate long-term risk to people and property from future disasters.

> FEMA Fiscal Year 2015 (FY15) Hazard Mitigation Assistance Guidance Document
> https://www.fema.gov/media-library-data/1424983165449-38f5dfc69c0bd4ea8a161e8bb7b79553/HMA_Guidance_022715_508.pdf
>
> HMA Guidance – Addendum and Fact Sheet
> https://www.fema.gov/media-library/assets/documents/103279
>
> The Hazard Mitigation Grant Program (HMGP) assists in implementing long-term hazard mitigation planning and projects following a Presidential Major Disaster Declaration.

The HMGP supports cost-effective post-disaster projects. Studies have shown that every $1 spent equals $4 of future damages mitigated.

HMGP funding will generally provide 15% of the total amount of Federal assistance provided to the State of New York following a major disaster declaration. Funding administered to the State is distributed across the Counties named in the disaster declaration, unless declared as Statewide by the President.

HGMP overview page: https://www.fema.gov/hazard-mitigation-grant-program

The FEMA online resource below provides guidance regarding project eligibility post-disaster, and the process of project scoping, funding and implementation through HGMP: https://www.fema.gov/hazard-mitigation-grant-program-guide-state/local-governments

A Presidential Major Disaster Declaration (such as President Obama's July 8, 2014 Declaration for Severe Storms and Flooding in New York) is necessary to trigger eligibility (*link to notice of 2014 Declaration:* https://www.fema.gov/media-library-data/1406919784305-290e6d9e5920e892bdca075d5947375a/PDA_Report_FEMA-4180-DR-NY.pdf)

The Pre-Disaster Mitigation Program (PDM) provides funds for hazard mitigation planning and projects on an annual basis

PDM awards planning and project grants and provides opportunities for raising public awareness about reducing future losses before disaster strikes. Mitigation planning is a key process used to break the cycle of disaster damage, reconstruction, and repeated damage.

PDM grants are funded annually by Congressional appropriations and are awarded on a nationally competitive basis.

The amount of funding provided for the PDM program depends on the amount of money congress appropriates each year to the program.

FEMA requires state, territorial, tribal, and local governments to develop and adopt hazard mitigation plans as a condition for receiving certain types of non-emergency disaster assistance, including funding for PDM mitigation projects.

Eligibility for PDM funding in the watershed is covered for hazards identified in the Livingston County Multi-Jurisdictional All-Hazard Mitigation Plan (2015)

The FEMA resource below provides an overview and guidance pertaining to the PDM program:

https://www.fema.gov/pre-disaster-mitigation-grant-program

The Flood Mitigation Assistance Program (FMA) provides funds for planning and projects to reduce or eliminate risk of flood damage to buildings that are insured under the National Flood Insurance Program (NFIP) on an annual basis. Purpose of the program is to bolster community resiliency to reduce the number of potential damage claims against the National Flood Insurance Program.

The amount of funding provided for the FMA program depends on the amount of money congress appropriates each year to the program.

Similar to PMA, eligibility for FMA funding in the watershed is covered for hazards identified in the Livingston County Multi-Jurisdictional All-Hazard Mitigation Plan (2007)

The FEMA resource below provides an overview and guidance pertaining to the PDM program:

https://www.fema.gov/flood-mitigation-assistance-grant-program

Additional Resources

https://www.fema.gov/hazard-mitigation-assistance-publications - FEMA Hazard Mitigation Assistance Publications and Fact Sheets (see *Flood Projects* in listing).

http://www.gflrpc.org/uploads/3/1/9/1/31916115/livingstonallhazard.pdf - Livingston County Multi-Jurisdictional All-Hazard Mitigation Plan (2007 version, does not include 2015 revisions)

DISASTER DECLARATIONS

Federal (Presidential) Declarations

The Process

Under the federal Stafford Act, State Governors and recognized Tribal Governments have the ability to request from the President of the United States a declaration that a major emergency exists.

After an emergency event occurs, a joint Federal, State/Tribal Preliminary Damage Assessment (PDA) of the impacted area is conducted to determine the extent of the disaster, its impact on individuals and public facilities, and the types of federal assistance that may be needed. Local government representatives should be included in the PDA, if possible.

Typically, a formal request from the Governor or Tribal Government for Presidential Disaster Declaration is made following the PDA. In cases where an obvious emergency or catastrophic event has occurred, a request for Presidential Disaster Declaration may be made immediately, prior to the PDA taking place.

Disaster Declarations

Two types of Presidential Disaster Declarations provided for in the Stafford Act:

1. *Emergency Declarations*

    a. Any occasion or instance when the President determines federal assistance is needed.

    b. Supplements State and local or Indian tribal government efforts in providing emergency services.

    c. Total amount of federal assistance provided for in a single emergency may not exceed $5 million.

    d. Assistance Available Under Emergency Declarations:

        i. Public Assistance (PA)

            · Only debris removal and emergency protective measures may be authorized under an emergency declaration.

            · Permanent work is not authorized under an emergency declaration.

            · Federal assistance is generally provided on a 75% federal, 25% non-federal cost sharing basis.

        ii. Individual Assistance (IA)

            · The Individuals and Households Program (IHP) is the only form of IA that may be authorized under an emergency declaration.

            · Housing Assistance under IHP is provided at a 100% federal share, while Other Needs Assistance under IHP requires a 25% non-federal cost share.

e. The Hazard Mitigation Grant Program (HMGP) is not available for emergency declarations.

2. *Major Disaster Declarations*

a. For any natural event, including hurricane, tornado, storm, high water, wind-driven water, or flood that the President determines is beyond the combined capabilities of state and local governments to respond.

b. Provides a wide range of federal assistance programs for individuals and public infrastructure.

i. Funds both emergency and permanent work.

c. Assistance Available Under Major Disaster Declarations:

i. Individual Assistance

· Individuals and Households Program;

· Crisis Counseling Program

· Disaster Case Management

· Disaster Unemployment Assistance

· Disaster Legal Services

· Disaster Supplemental Nutrition Assistance Program

ii. Public Assistance

· Debris removal

· Emergency protective measures

· Roads and bridges

· Water control facilities

· Buildings and equipment

· Utilities

· Parks, recreational and other facilities

d. Federal funding support and assistance through the Hazard Mitigation Assistance (HMA) program is triggered by Major Disaster Declarations

NY State Declaration of Emergency

New York Environmental Conservation Law ECL 70-0116 (as implemented by 6 NYC RR 621.12) allows NYSDEC to make a declaration of emergency following natural disasters or extraordinary weather events.

In the case of a Declaration of Emergency, NYSDEC is empowered to issue emergency authorization for maintenance, protection, repair or restoration activities normally requiring a permit.

A written statement of necessity and a finding of emergency is required from NYSDEC in order for emergency permits to be to be implemented.

See *Emergency Permits* below for more information on how NYSDEC emergency permits may relate to activities in the Conesus Lake watershed.

Additional Resources

https://www.ecfr.gov/cgi-bin/text-idx?SID=5a67508b6441bcdafc43c537b610741c&mc=true&node=sp44.1.206.b&rgn=div6 – FEMA codification of the Presidential Disaster Declaration Process

https://www.fema.gov/disaster-declaration-process - Overview of Presidential Disaster Declarations

EMERGENCY PERMITS

Federal (USACE) Emergency Permits

The Commander – USACE Buffalo District and the Division Engineer are empowered to issue Regional and/or Emergency Permits authorizing activities regulated under Section 10 (Rivers & Harbors Act) and Section 404 (Clean Water Act).

Currently, one active Emergency Permit is in place with applicability to the Conesus Lake Watershed

1. Regional Permit 99-000-1 – for excavation and discharge of fill to Waters of the US
    a. THIS USACE EMERGENCY PERMIT IS NOT CONTINUOUSLY VALID. IT IS ONLY VALID WHEN ACTIVATED BY THE DISTRICT COMMANDER IN RESPONSE TO A SEVERE STORM EVENT, AND ONLY IN THE AREAS FOR THE PERIOD OF TIME INDICATED WHEN ACTIVATED.
    b. Limited to remediation of sites damaged by a severe storm event, not the impacts of natural erosion or sediment deposition over time.
    c. General and special conditions of the emergency permit, authorized when activated by USACE are provided in the permit issuance notification. These include:
        i. Types of activities covered/not covered by this permit (when activated).
        ii. Thresholds for permittable project lengths, allowable types and quantities of fill and acceptable depths of excavation.

iii. Standards to be met in shaping, protecting, and revegetating streambed and streambanks post-flood.

iv. Applicability to repair or replacement of roadways, bridges, culverts and other related infrastructure damages by a severe storm event.

v. Conditions where pre-construction notification to USACE may or may not be required.

d. When activated, this USACE Emergency Permit does not preclude the need to secure any other local, state, or federal permits required to undertake the activities covered by this USACE Emergency Permit.

Applicability to the Conesus Lake Watershed (if USACE Emergency Permit is activated)

USACE Emergency Permit only applies to excavation or fill below OHWM along the tributary stream or Conesus Lake.

For emergency activities permitted by this Emergency Permit along portions of tributary streams upstream of the mouth (i.e. above the Mean High Water Mark of Conesus Lake (820.79 feet asl)), no additional NYSDEC consultation is required because:

1. Section 401 Water Quality Certification has been granted by NYSDEC for this Emergency Permit; and

2. All tributaries draining to Conesus Lake are Class C and non-navigable, so are not covered under Article 15 Protection of Waters permit. It should be noted that the inlet, a small section of North McMillan Creek and the mouths of streams up to the mean high water interval are navigable, and are subject to Article 15 permitting.

For emergency activities permitted by this Emergency Permit along Conesus Lake and the mouths of tributary streams below the Lake's Mean High Water Mark of 820.79 feet asl, additional NYSDEC consultation/permitting may be necessary because

1. Conesus Lake is Class AA waterbody and navigable, and as such is covered by NYSDEC Article 15 Protection of Waters Permit.

NOTE: As of October, 2017, the Regional Permit 99-000-1 is proposed as a State Programmatic General Permit (SPGP) to provide joint coverage of storm/emergency recovery efforts. Final approval of this joint coverage has not, as of this date, been finalized and approved. If approved, this General Permit would potentially remove the need for separate USACE/NYSDEC consultation and permits only for specific recovery activities covered under this permit. The General Permit would continue to only be valid when activated in response to a severe storm event, as determined by USACE.

New York State (NYSDEC) Emergency Permits

Emergency Authorizations

The NY State Uniform Procedures Act empowers NYSDEC to expedite review and approval of emergency permits for regulated activities disturbing Conesus Lake and its tributary streams in emergency situations.

Emergency Authorization (permits) are issued on a case-by-case basis for emergency situations that immediately threaten life, health, property, general welfare or natural resources, and require a prompt response.

To request an Emergency Authorization, notify the NYSDEC Region 8 – Regional Permit Administrator (contact provided in Section A2 of this document) and provide the following:

1. A description of the proposed action;

2. A location map and plan of the proposed action;

3. Reasons why the situation is an emergency based on the immediate protection of life, health, general welfare, property or natural resources;

4. Actions to be taken to minimize environmental impacts; and

5. Any additional information requested by the Department.

NYSDEC will issue a decision to grant or deny the Emergency Authorization within two business days of receipt of the required information.

Emergency Authorizations can only be issued for a period of up to 30 days and renewed for up to an additional 30 day period.

Projects that continue beyond the 60-day period require a full and complete application for permit, subject to all procedural (normal/non-emergency) review processes and timelines.

If prior notification to the Regional Permit Administrator is not possible given the nature of the emergency State and Local government entities are empowered to proceed with emergency work otherwise requiring a NYSDEC permit, provided:

1. The State of Local government entity notifies the NYSDEC Regional Permit Administrator within 24 hours of commencing the emergency work; and

2. The Regional Permit Administrator is provided with the required information listed above to request and Emergency Authorization.

The information listed above required to request an Emergency Authorization serves as the basis for NYSDEC to determine whether an emergency permit will be issued for any given project.

In order to issue an Emergency Authorization, NYSDEC must:

1. Make a "Finding of Emergency" stating why immediate action is needed

    a. An emergency declaration by New York State or a local government typically fulfills this criteria, although NYSDEC can also make its own ruling

        i. Determine that the project minimizes impacts to life, health, property and/or natural resources to the greatest extent possible.

Storm Recovery Permits

In the event of a natural disaster, weather-related event or other emergency that affects all or part of New York State, NYSDEC is empowered to issue a General Permit for Storm-recovery Activities.

General Storm Recovery Permits typically provide short-term coverage for recovery-related efforts limited to the geographic areas effected.

General Storm Recovery Permits are usually:

1. specific to the type of disaster event that occurred.
2. limited in scope to cover the most likely (anticipated) types of recovery activities.
3. limited in duration (time of coverage) to authorize recovery efforts immediately after the emergency event.

General Storm Recovery Permits will include conditions dictating:

1. Whether blanket coverage from USACE is included with the permit, or if separate USACE consultation/permitting is required.
2. Specific types of activities covered.
3. Thresholds for allowable extent of disturbance, types and quantities of fill/excavation permitted, etc.
4. Requirements as to whether pre-construction notification is required prior to starting work.
5. Other measures to be taken during the project, potentially including:
    a. Minimization of impacts to natural resources
    b. Site stabilization
    c. Notification to NYSDEC of project completion

Additional Resources

http://www.lrb.usace.army.mil/Portals/45/docs/regulatory/RegionalPermits/99-000-1_2017/RP99-000-1_extended2017.pdf?ver=2017-01-10-102440-347 – USACE (Buffalo District) Regional Permit 99-000-1 (includes coverages and conditions for use)

http://www.dec.ny.gov/permits/96337.html - NYSDEC Emergency Authorizations

http://www.dec.ny.gov/permits/89343.html - NYSDEC Storm Recovery Permits

RIGHTS-OF-WAY, HIGHWAYS AND CULVERTS

Roadway/Right-of-way Jurisdiction

Across the Conesus Lake Watershed, public roadways fall under jurisdiction of either local (Town and Village), County, or State government. Rights-of-way include not only the road (cartway) proper, but typically extends outward from the road edges to incorporate adjacent ground commonly used for drainage. A common standard for local (Town) roads is a right-of-way width of three rods (49.5 feet), centered at the location of the roadway centerline (or 24.75 feet in either direction from the center of the road). However, this standard varies greatly from location to location. Actual rights-of-way for all public roads are shown on tax parcel mapping. These maps should be consulted to determine actual right-of-way locations and extents for any specific location of interest.

Stormwater-related Responsibilities

Town and Village Highway Departments, Livingston County Highway Department and NYS Department of Transportation all bear responsibility for the discharge of stormwater from the roadways and drainage facilities within their respective jurisdictional rights-of-way. Because drainage patterns typically involve concentration and point-discharge of runoff (such as with a road ditch/culvert system), stormwater inputs from roadway systems can be significant contributors to the volume and rate of storm flow, contributing to localized erosion and influencing the flashiness and destabilizing of receiving streams.

Highway Departments are also responsible for maintaining stream crossings (bridges and culverts) on public roadways. Culverts should, at a minimum, be adequately-sized to accommodate higher-than-normal storm flows (hydraulic capacity up to the 50-yr streamflow event is a common design standard). More advanced culvert installations allow for floodplain continuity/connectivity upstream and downstream of the structure, reducing the risk of channel and streambank erosion and providing adequate passage for aquatic organisms.

Challenges & Issues

Along the immediate lakeshore, there is minimal room between the roadway (namely East and West Lake Roads) and the Lake for substantial stormwater treatment. Lots are small and tightly-packed.

Discharge from the roadway is often immediately in contact with a private residence, driveway, or structure.

Runoff collected in ditches must be concentrated for long distances until an available discharge point is reached. “Divide & Conquer” cannot be readily achieved.

Highway drainage/stormwater-treatment measures must not only account for runoff generated from the roadway, but for stormwater originating outside of the right-of-way that enters or crosses prior to reaching private property along the lakeshore.

Storm-related blockages:

1. Sediment from upstream channel (bed) and bank erosion.
2. Woody debris (tree, brush, etc.) inputs from upstream streambank failures or dumping of logging debris in the floodplain.

3. Ice jams.

4. Residential debris sourced from upstream dumping or stockpiling of materials in floodplain.

Recommendations

1. Develop an inventory of culverts and bridges in the Conesus Lake watershed to document sufficient/insufficient hydraulic capacity, sediment loading/obstruction potential, and potential for obstruction based upon upstream/watershed conditions.

    a. Ensure culverts and bridges are properly-sized to current-day flood and sediment regimes.

    b. As culverts and bridges are earmarked for replacement, consider broader, less laterally-confined structures that promote continuity between the adjoining upstream and downstream sections of the stream.

2. Support and implement upstream efforts to reduce streambank/streambed erosion.

3. Work with landowners to develop a proactive debris management plan to remove at-risk trees prior to falling into the stream.

    a. May require work outside of the right-of-way, and prior authorization through NYSDEC to selectively remove trees along the streambank.

4. Take a proactive education and outreach approach to engage landowners in areas historically or potentially impacted by flooding associated with bridge/culvert obstruction.

    a. Proactively develop and present educational resources to streamside landowners.

5. Consider more environmentally-responsible maintenance practices for road ditch maintenance.

    a. Selective sediment removal as opposed to widespread annual dredging.

    b. Use of stabilizing fabric in the ditch bottom to reduce downcutting and erosion of the ditch.

    c. Installation of perennial vegetation to stabilize the ditch, increase hydraulic roughness and reduce stormflow velocity.

Regulatory considerations (Permitting)

All streams draining to Conesus Lake are Class C and non-navigable by NYSDEC definition. NYSDEC Stream Disturbance permitting is not required for excavation/fill below Ordinary High Water Mark associated with bridge and culvert maintenance.

All streams and their tributaries draining to Conesus Lake are categorized as “Waters of the U.S.” and require federal authorization through USACE prior to proceeding with excavation/fill below Ordinary High Water Mark associated with bridge and culvert maintenance.

USACE authorizations are required prior to proceeding with bridge/culvert replacement or maintenance work that includes cut or fill below Ordinary High Water Mark.

Some municipal entities (such as Livingston County Highway Department) hold open-ended USACE permits/NYSDEC Water Quality Certification to allow for routine maintenance within defined thresholds of disturbance (length of stream, depth of excavation, finished elevation and grade, etc.).

Authorization for bridge/culvert maintenance projects not covered by standing maintenance permits are typically covered by Nationwide Permit #3 (Maintenance) and Water Quality Certification (from NYSDEC).

Authorization may be by waiver or by permit (typically NWP), depending on the extent and character of work.

Consultation with USACE is required to determine permitting requirements on a project-by-project basis.

If a USACE permit is required, a Water Quality Certification from NYSDEC is required as well.

Additional Resources

The Cornell Local Roads Program (CLRP) provides a wealth of technical resources to support sustainable road maintenance practices that may benefit stormwater management, including reference documents, workshops and training seminars.

http://www.clrp.cornell.edu/