

**[Name of municipality], Tompkins County, New York
Model Stream Buffer Ordinance [April 2009]**

1. Title

This ordinance shall be known and may be cited as the “Stream Buffer Ordinance of the _____(jurisdiction).” [If applied to zoning – This ordinance shall amend the Zoning Ordinance of the _____(jurisdiction) to add Article (section) entitled “Stream Buffer Requirements.”]

2. Purpose

The purpose of this ordinance (article) is to establish requirements for creating and maintaining buffers to protect the water quality in the streams of the _____(jurisdiction), Tompkins County. This ordinance (article) promotes the prevention of sediment, nutrient and pollutant loads from entering streams by maintaining stream buffers of at least 100 feet from the top of stream bank. Research has shown that this distance is the minimum necessary to filter nutrients and pollutants to protect water quality. Although it is not regulated in this ordinance (article), the _____(jurisdiction) strongly encourages landowners to maintain stream buffers of 330 feet from the top of stream bank, on undeveloped land where feasible, in order to protect wildlife habitat.

3. Definitions

Buffer: land on each side of a stream that shall be left vegetated to provide riparian corridor functions. Buffers are measured horizontally from the top of the stream bank in a direction directly perpendicular to the bank and in the horizontal plane.

Development: the construction, reconstruction, conversion, structural alteration, relocation, or enlargement of any structure including that intended for agricultural use; any mining excavation, landfill, or land disturbance, including grading and filling.

Intermittent Stream: surface water drainage channels with definite bed and banks in which there is not a permanent flow of water (and is represented as a dashed line on United State Geological Survey (USGS) 7.5 Minute Quadrangle maps).

Impervious Surface: any paved, hardened or structural surface including, but not limited to, buildings, dams, decks, driveways, parking areas, patios, streets, swimming pools, tennis courts, walkways, and other non-permeable structures.

Perennial Stream: a stream that flows continuously throughout the year in a natural or man-made channel (which is represented as a solid blue line on United States Geological Survey (USGS) 7.5 Minute Quadrangle maps).

Steep Slope: any slope of 15% grade or greater.

Stream: the full length and width, including the bed and banks, of any watercourse, that has a channel which periodically or continuously contains moving water. It further has a defined bed, and has banks that serve to confine water at low to moderate flows (and is represented as either a solid or dashed blue line on United States Geological Survey (USGS) 7.5 Minute Quadrangle maps). For the purpose of this ordinance, constructed drainage-ways, including water bars, swales, and roadside ditches, are not considered streams.

Stream Bank: the lateral confines of a stream which contain the normal flow of the stream.

Parcel: a designated tract or area of land established by plat, subdivision, or as otherwise permitted by law, to be separately owned, used, developed, or built upon.

Top of Stream Bank: the primary edge of the ordinary high water mark, or break in slope for a watercourse, which maintains the integrity of the watercourse.

Wetlands: lands, including submerged lands, saturated by water at a frequency and duration sufficient to support vegetation adapted for life in saturated soil conditions. For the purpose of this ordinance, wetlands are limited to those lands that are categorized as wetlands by either the New York State Department of Environmental Conservation (DEC) or the National Wetlands Inventory (NWI) or have been documented and mapped as part of an officially adopted community wetlands inventory.

4. Applicability

These requirements do not supercede or replace any greater applicable buffer requirements established under state or federal law and are applicable to all land within _____(jurisdiction). This ordinance shall apply to all proposed development.

5. Requirements

5.1. Protection Requirements for Perennial Streams

A vegetative buffer shall be required for all development activities that occur in proximity to perennial streams with additional considerations for wetlands and steep slopes. Protection shall be divided into a Riparian Buffer and a Setback Area that protects overall water quality by limiting development in accordance with the adjacent land's ability to filter sediment, nutrients and other pollutants. This protection will provide stability to the stream and stream bank. The minimum total

setback width for all perennial streams combined is 100 feet. There is no established maximum setback width.

The _____(jurisdiction) shall require the delineation of any applicable Riparian Buffer and Setback Areas on all subdivision plats, site plan applications, special permits, special approval and variance applications, building permit applications, and excavation or fill permit applications. This delineation shall be subject to review and approval by the appropriate board or officer.

Prior to any soil-disturbing activity, the Riparian Buffer and Setback Area shall be clearly delineated on site and shall be undisturbed until the project is complete.

5.1.1 Riparian Buffer: The function of the Riparian Buffer is to protect the physical and ecological integrity of the portion of the riparian corridor in closest proximity to the stream through protection and enhancement of the native vegetation. Native vegetation provides shade, leaf litter, woody debris, erosion protection, and filtering of sediment, nutrient and pollutant loads to the stream.

- a. The Riparian Buffer will begin at the top of the stream bank and extend a minimum of 50 feet horizontally measured in a direction directly perpendicular to the stream bank in a horizontal plane. Should a steep slope or wetland exist within this Buffer the entirety of that area will be added to the measurement of the Riparian Buffer. This full area will utilize the restrictions accorded to the Riparian Buffer.
- b. Development and use are restricted to the following, the entirety of which may not modify or interrupt more than 10% of the entire Riparian Buffer unless necessary for the protection of human health, utility usage, public infrastructure, or the betterment of the riparian corridor.
 - Benches or seating;
 - Implementation of educational and scientific research that does not negatively impact the native vegetation;
 - Flood control, stormwater management structures, and stream bank stabilization measures approved by the Tompkins County Soil and Water Conservation District, Natural Resource Conservation Service, Army Corps of Engineering, or NYS Department of Environmental Conservation;
 - Maintenance of roadways or impervious surfaces existing at the time of the adoption of this provision;
 - Stream crossings necessary to access the property by driveway, transportation route, or utility line which are

designed to minimize negative impacts to the stream and Riparian Buffer;

- Public water supply intake or public wastewater outfall structures;
- Public access and public recreational facilities that must be on the water including boat ramps, docks, foot trails leading directly to the stream, fishing platforms and overlooks;
- Public sewer lines and/or other utility easements.
- Techniques to remove invasive species;
- Non-paved recreational trails no wider than 10 feet that either provide access to the stream or are part of a continuous trail system running roughly parallel to the stream;
- Temporary use of erosion control measures such as silt fencing;
- Limited tree cutting, forestry or vegetation management done in accordance with a Forest Stewardship Plan prepared by the Department of Environmental Conservation, a forester who is certified by the Society of American Foresters or such successor organization as is later created, or a Cooperating Consulting Forester with the New York State Department of Environmental Conservation. Any harvest must furthermore be done in accordance with the *New York State Forestry Best Management Practices for Water Quality – BMP Field Guide*. Tree cutting may not compromise the integrity of the stream bank or negatively impact the function of the Riparian Buffer. Tree cutting within 25 feet of the top of stream bank is prohibited. Any such activity must retain at a minimum 50% of the tree canopy in the Riparian Buffer at all times.

5.1.3. **Setback Area:** The function of the Setback Area is to filter sediment, nutrients and pollutants in runoff and slow the rate at which runoff enters the Riparian Buffer.

- a. The Setback Area will begin at the outward edge of the Riparian Buffer and provide a minimum width of 50 feet. Should a steep slope or wetland exist within this Area the entirety of that area will be added to the measurement of the Setback Area. This full area will utilize the restrictions accorded to the Setback Area.
- b. Within the Setback Area development uses are restricted to the following:
 - All development and uses permitted in the Riparian Buffer;

- Minor recreational structures and surfaces to allow passive recreation in the Setback Area such as decks, picnic tables, playground equipment, and small concrete slabs, the total area of which is not to exceed 200 square feet each and in aggregate occupy no more than 10% of the Setback Area;
- Fences, provided such structures do not impede floodwaters;
- Landscaping, mowing, decorative planting or improvements that do not encroach upon or impact the integrity of the Riparian Buffer.

5.2 Prohibited Activities

The following activities are explicitly prohibited in both the Riparian Buffer and Setback Area.

- 5.2.1. Storage or placement of any hazardous materials, before the following setback allotment, is prohibited. All sewage systems, both drain fields and raised systems and replacement of existing wells, must adhere to a 100-foot buffer from perennial streams. Any property that cannot accommodate such a buffer requires a variance.
- 5.2.2. Purposeful introduction of invasive vegetative species that reduce the persistence of local vegetation is prohibited. For a listing of invasive vegetation to avoid, refer to the Tompkins County “Environmental Management Council’s Invasive Plants of Tompkins County” (1998, as revised).
- 5.2.3. Waste storage and disposal including but not limited to disposal and dumping of snow and ice, recyclable materials, manure, hazardous or noxious chemicals, used automobiles or appliance structures, and other abandoned materials.
- 5.2.4. No combination of allowed or exempt activities may compromise or alter more than 10% of the total riparian buffer and setback area that lies within a tax parcel.
- 5.2.5. Public water supply wells must be greater than 200 feet from top of stream bank; private wells are not allowed in the Riparian Buffer. Any property whose water supply cannot accommodate such a buffer requires a variance.
- 5.2.6. Mining or removal of soil, sand and gravel, and quarrying of raw materials.
- 5.2.7. Dredging, deepening, widening, straightening or any such alteration of the beds and banks of natural streams except where the New York State

Department of Environmental Conservation has issued a permit expressly allowing such activities on the parcel.

5.2.8. Application of herbicide, pesticides, fertilizers, or other chemicals.

5.2.9. Parking of motorized vehicles.

5.3 Protection Requirements for Intermittent Streams

For those streams classified as intermittent, only the Riparian Buffer shall apply. For an intermittent stream the buffer will begin at the top of the stream bank and extend a minimum of 50 feet horizontally measured in a direction directly perpendicular to the stream bank in a horizontal plane. All provisions applicable to the Riparian Buffers for perennial streams should apply to intermittent streams.

6. Exemptions

The following specific activities are exempt from the requirements of this ordinance.

6.1. General Exemptions

6.1.1. The ordinance shall not apply to agricultural land use activity existing as of the effective date of this ordinance.

6.2. Grandfather Provisions

6.2.1. Work consisting of the repair or maintenance of any lawful use of land that is approved for such use on or before the effective date of this ordinance.

6.3. Variance Procedures

Variances from the above buffer and setback requirements may be granted only in accordance with the following provisions. Except as provided below, the _____ (appeals board) of _____ (jurisdiction) shall grant no variance from this ordinance without conducting a public hearing on the application for variance, and issue a notice of public meeting on such variance in a newspaper of general circulation in the municipality at least ten working days prior to such hearing. Such notice shall be forwarded at least ten working days in advance by a registered letter to the superintendent of highways or commissioner of public works, to the clerk of the county legislative body, and to the county planning board, if any, and appropriate state and federal agencies affected.

6.3.1. A variance shall be granted only upon a finding that a property's shape, topography or other physical conditions prevents land development unless a variance is granted, or that strict adherence to the minimal buffer and setback requirements would create extreme hardship.

6.3.2. A variance request shall include the following information in written documentation:

- A to-scale site map with stream, wetlands, slopes and other natural features locations as determined by field survey;
- Description of the topography, slopes and soil type, shape of property, natural vegetation, and other distinguishing or prohibitive physical characteristics of the property;
- The locations and footprint of all existing structures and other impervious cover on a site map, with footprint for proposed structures. This map shall include the limits of all existing and proposed land disturbance, both inside and outside the buffer and setback;
- The exact area of the affected buffer and setback, and nature of proposed changes to be made to these areas shall be accurately and clearly indicated. A calculation of the total area and length of the proposed intrusion and any pre-existing intrusions shall be included;
- A stormwater management plan given the proposed changes and intrusions;
- Documentation of supposed hardship should the buffer be maintained;
- Proposed mitigation for the intrusion.

6.3.3 The following matters will be considered in determining whether to issue a variance:

- The shape and physical characteristics of the property;
- The locations of all streams on and/or adjacent to the property;
- The location and extent of the proposed buffer or setback intrusion;
- Whether alternative designs are possible which require less intrusion;
- The water-quality impacts of the proposed variance.

7. Administration and Enforcement

7.1 This ordinance shall be administered by _____(Jurisdiction Administrator, i.e. Code Enforcement Officer) or other official as designated.

7.2 A development plan shall not be approved, and therefore a building permit shall not be issued, unless the development plan satisfies the requirements under this ordinance. The _____(jurisdiction) may deny, suspend, or revoke any development plan if the plan violates this ordinance.

7.2. The _____(jurisdiction) may cancel or revoke any approved development plan or issued building permit if it fails to maintain the requirements of this ordinance; and may take legal action to stop, revoke or cancel the approval or the building permit.

References Used for Model Ordinance Development

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- Bren, L. (2000). A case study in the use of threshold measures of hydrologic loading in the design of stream buffer strips. *Forest Ecology and Management*, 132, pp. 243-257.
- Enhancing Water Resources in Tompkins County: Benefits of Riparian Stream Areas and Stream Buffers: Tompkins County Planning Department, 2004.
<http://www.tompkins-co.org/planning/Water%20Resources/FINAL%20STREAM%20DOC.pdf>
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- Part I: A Strategic Approach to Natural Stewardship: Tompkins County Conservation Plan. Tompkins County Planning Department. 2007.
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- Town of Ulysses. *Zoning Law*. Accessed February 1, 2008. Ulysses, 2005.
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