

**ROCKAWAY RIVER WATERSHED CABINET**  
**STREAM BUFFER CONSERVATION AREA**  
**MODEL ORDINANCE**

**I. PURPOSE**

In recognition of the fact that natural features contribute to the welfare of residents, the following regulations have been enacted to provide reasonable controls governing the restoration, conservation, disturbance, and management of existing stream buffers for all perennial and intermittent streams and all lakes and ponds in the municipality by establishing designated Stream Buffer Conservation Areas. In addition, the specific purposes and intent of this article are to:

- A. Reduce the amount of nutrients, sediment, organic matter pesticides, and other harmful substances that reach watercourses, wetlands, subsurface, and surface water bodies by using scientifically-proven processes including filtration, deposition, absorption, adsorption, plant uptake, biodegradation, denitrification and by improving infiltration, encouraging sheet flow, and stabilizing concentrated flows.
- B. Improve and maintain the safety, reliability and adequacy of the water supply for domestic, agricultural, commercial, industrial and recreational uses along with sustaining diverse populations of aquatic flora and fauna.
- C. Regulate the land use, siting and engineering of all development to be consistent with the intent and objectives of this ordinance, accepted conservation practices, and to work within the carrying capacity of existing natural resources.
- D. Assist in the implementation of pertinent state laws concerning erosion and sediment control practices.
- E. Conserve the natural features important to land and water resources (e.g., headwater areas, groundwater recharge zones, floodway, floodplain, springs, streams, wetlands, woodlands, prime wildlife habitats) and other features constituting high recreational value or containing amenities that exist on developed and undeveloped land.
- F. Work with floodplain, steep slope, and other ordinances that regulate environmentally sensitive areas to minimize hazards to life, property, and stream features.
- G. Conserve natural, scenic, and recreation areas within and adjacent to stream areas for the community's benefit.

II. DEFINITIONS, APPLICABILITY, WIDTH DETERMINATION OF THE STREAM BUFFER CONSERVATION AREA AND ESTABLISHMENT OF A STREAM BUFFER CONSERVATION EASEMENT

A. DEFINITIONS – As used in this subsection, the following terms shall have the meanings set forth below:

1. STREAM shall mean a natural watercourse or surface water body that contains water for at least part of the year, has a drainage area of 50 acres or greater, or is portrayed as a dashed line on a USGA Soil Survey Map of the most recent edition.
2. STREAM BUFFER CONSERVATION ZONE shall mean an area adjacent to a Stream that intercepts surface water runoff, subsurface flow and/or deep groundwater flows from upland sources and functions to remove or buffer the effects of associated nutrients, sediments, organic matter, pesticides or other pollutants prior to entry into the Stream. This area may also provide wildlife habitat, control water temperature, attenuate flood flow, and provide opportunities for passive recreation. This buffer area may or may not contain trees and other native vegetation at the time of ordinance enactment.
3. STREAM BUFFER CONSERVATION EASEMENT shall mean an easement running to the municipality subject to all restrictions applicable to the Stream Buffer Conservation Area.
4. STREAM BUFFER MANAGEMENT PLAN shall mean a plan approved by the municipal engineer or the appointed representative. The plan shall be prepared by a landscape architect, professional engineer or other qualified professional and shall fully evaluate the effects of any proposed activity/ uses on a Stream Buffer Conservation Area. The plan shall identify existing conditions (vegetation, 100 year floodplain, soils, slopes, etc.), all proposed activities and all proposed management techniques, including any measures necessary to offset disturbances to the Stream Buffer Conservation Area.

B. APPLICABILITY - The regulations outlined in this subsection shall be applicable to all properties containing a Stream Buffer Conservation Area.

C. WIDTH DETERMINATION - The measurement of the Stream Buffer Conservation Area shall extend a minimum of 75 feet from each defined edge of an identified Stream at bankfull flow, or shall equal the extent of the 100 year floodplain, whichever is greater. A Stream Buffer Conservation Area shall consist of two distinct zones designated as follows:

1. Zone One

- a. This zone will begin at each defined edge of a Stream and shall occupy a margin of land with a minimum width of 25 feet measured horizontally on a line perpendicular to the edge of the Stream at bankfull flow.
- b. Where steep slopes (in excess of 25 percent) are located within 25 feet of a Stream, Zone One shall extend the entire distance of this sloped area. If the distance of this sloped area is greater than 75 feet, there will be no requirement for the establishment of Zone Two. If the distance is less than 75 feet, the width of Zone Two will be adjusted so that the total buffer width (Zone One and Zone Two) will be 75 feet, except where a greater width is required in order to include the 100 year floodplain.

2. Zone Two

- a. This zone will begin at the outer edge of Zone One and shall occupy a minimum width of 50 feet in addition to Zone One.
- b. Where the 100-year floodplain extends greater than 75 feet from the waterway, Zone One shall remain a minimum of 25 feet wide, and Zone Two shall extend from the outer edge of Zone One to the outer edge of the 100-year floodplain.

3. Responsibility for Width Determination. The applicant, or designated representative shall be responsible for the initial width determination of the Stream Buffer Conservation Area and for identifying this area on any plan that is submitted to the municipality in conjunction with an application for a construction permit or development plan approval for subdivision, land development, or other improvements that require plan submissions or permits. This initial determination shall be subject to review and approval by the municipal engineer, or appointed representative.

4. Zone Two Waiver. If the applicant submits a Stream Buffer Management Plan that proves to the satisfaction of the municipal engineer that a proposed vegetative or other enhancement to Zone One will eliminate the need for a Zone Two, or a portion of Zone Two, the municipal engineer may waive the requirement for a Zone Two, or portion of Zone Two, provided that the approved Stream Buffer Management Plan is implemented by the applicant.

D. ESTABLISHMENT OF A STREAM BUFFER CONSERVATION EASEMENT –  
When any of the following circumstances occur, the applicant shall establish a Stream Buffer Conservation Easement containing the Stream Buffer Conservation Area. The Stream Buffer Conservation Easement shall be recorded prior to the municipality issuing any permits or approving any uses relating to the applicable use or activity.

1. When the applicant applies to the Construction Code Office for a construction permit that encroaches into Zone One or Zone Two, excluding a construction permit application that involves only a fence.
2. When the applicant applies to the Planning Board or Board of Adjustment for approval of a development plan, excluding a development plan that involves only a fence.

### III. USES PERMITTED IN THE STREAM BUFFER CONSERVATION AREA

The following uses are permitted, either by right or after review and approval by the municipality in the Stream Buffer Conservation Area. Any existing impervious structures or features currently within the Stream Buffer Conservation Area may continue to remain and will not have to be removed.

#### A. Zone One

1. Uses Permitted by Right – The following uses shall be permitted by right in Zone One and do not require approval by the municipality or compliance with an approved Stream Buffer Management Plan.
  - a. Open space uses that are primarily passive in character, including shall be permitted to extend into Zone One, including wildlife sanctuaries, nature preserves, forest preserves, fishing areas, passive areas of public and private parklands.
  - b. Fences for which a permit has been issued by the Construction Code Office.
  - c. On residential lots, new or expansion of accessory uses and structures not exceeding 100 square feet of impervious area.
2. Uses Requiring Municipal Review and Approval. The following uses shall be permitted in Zone One subject to approval by the municipality and subject to compliance with an approved Stream Buffer Management Plan.
  - a. Buffer crossings by farm vehicles and livestock, recreational trails,

roads, railroads, centralized sewer and/ or water lines, and public utility transmission lines, and public utility transmission lines provided that the land disturbance is the minimum required to accomplish the permitted use.

- b. Reforestation and streambank stabilization.

B. Zone Two

1. Uses Permitted By Right - The following uses shall be permitted by right in Zone Two and do not require approval by the municipality or compliance with an approved Stream Buffer Management Plan.
  - a. Open space uses that are primarily passive in character, including shall be permitted to extend into Zone One, including wildlife sanctuaries, nature preserves, forest preserves, fishing areas, passive areas of public and private parklands.
  - b. Fences for which a permit has been issued by the Construction Code Office.
  - c. On residential lots, new or expansion of accessory uses and structures not exceeding 100 square feet of impervious area.
  - d. Minimum required front, side, and rear yards on private lots, provided that no minimum required yard may extend into Zone Two more than half the distance between the outer boundaries of Zone One and Zone Two.
  - e. Agricultural uses existing at the time of adoption of this ordinance.
2. Uses Requiring Municipal Review and Approval - The following uses shall be permitted in Zone Two subject to approval by the municipality and subject to compliance with an approved Stream Buffer Management Plan.
  - a. New agricultural uses.
  - b. Buffer crossings by farm vehicles and livestock, roads, railroads, centralized sewer and/or water lines, and public utility transmission lines provided that the land disturbance is the minimum required to accomplish the permitted use.
  - c. Centralized sewer and/or water lines and public utility transmission lines running along the buffer, provided that any disturbance is, at
    - a. minimum, offset by buffer improvements identified in the Stream Buffer Management Plan. These lines shall be located as far

from Zone One as practical.

- d. Selective cutting of trees when removal is consistent with approved standards in the Stream Buffer Management Plan.
- e. Recreation areas such as camps, campgrounds, picnic areas and golf courses. Active recreation areas such as ballfields, playgrounds, and courts provided these uses are designed in a manner that will not permit concentrated flow of stormwater.
- e. Naturalized stormwater basins, provided the entire basin is located a minimum of 50 feet from the defined edge of the Stream.
- f. Reforestation and Streambank stabilization.

#### IV. USES SPECIFICALLY PROHIBITED IN THE STREAM BUFFER CONSERVATION AREAS

Any use or activity not permitted herein shall be prohibited within the Stream Buffer Conservation Area. By way of example, the following activities and facilities are specifically prohibited:

- A. Clear-cutting of trees and other vegetation.
- B. Selective cutting of trees and/or the clearing of other vegetation within Zone One or Zone Two, except where such clearing is necessary to prepare land for a permitted use and where the effects of these actions are mitigated by revegetation, in compliance with an approved Stream Buffer Management Plan.
- C. Removal of trees in excess of selective cutting, except where such removal is necessary as a means to eliminate dead, diseased, or hazardous tree stands that jeopardize public safety or as part of a reforestation project, provided that the removal is in compliance with a Stream Buffer Management Plan.
- D. Removal or disturbance of vegetation in a manner that is inconsistent with erosion control and buffer protection.
- E. Storage of any hazardous or noxious materials
- F. Use of fertilizers, pesticides, herbicides, and/or other chemicals in excess of prescribed industry standards or the recommendations of the Morris County Conservation District.
- G. Roads or driveways, except where permitted as buffer crossings.

- H. Motor or wheeled vehicle traffic in any area that in the opinion of the municipal engineer, is not designed to adequately accommodate the type and volume.
- I. Parking lots.
- J. Any type of permanent structure, including fences, except structures needed for a permitted use.
- K. Subsurface sewage disposal areas.
- L. Sod farming.

V. BOUNDARY INTERPRETATION AND APPEALS PROCEDURE

- A. When a landowner or applicant disputes the Zone (One or Two) boundaries of the stream buffer or the defined edge of a Stream, the landowner or applicant shall submit evidence to the municipality that describes the boundary, presents the landowner or applicant's proposed boundary, and presents all justification for the proposed boundary change. The evidence supporting a proposed Stream designation must be provided by a New Jersey licensed professional engineer.
- B. The municipal engineer or appointed representative shall evaluate all material submitted and shall make a written determination within 45 days of a complete submission.
- C. Any party aggrieved by any such determination or other decision or determination under this section may appeal to the (governing body) under the provisions this ordinance. The party contesting the location of the district boundary shall have the burden of proof in case of any such appeal.

VI. INSPECTION OF STREAM BUFFER CONSERVATION AREA

- A. Lands within or adjacent to an identified Stream Buffer Conservation Area will be inspected by a municipal representative when:
  - 1. A construction permit application affecting the Stream Buffer Conservation Area is submitted to the Construction Code Office.
  - 2. A development plan application affecting the Stream Buffer Conservation Area is submitted to the Planning Board or Board of Adjustment.
  - 3. A change or resumption of a nonconforming use within the Stream Buffer Conservation Area is proposed.
  - 4. A proposed Stream Buffer Management Plan is submitted to the municipality.

- B. A Stream Buffer Conservation Area may also be inspected periodically by the municipal representatives for compliance with an approved Stream Buffer Management Plan, excessive or potentially problematic erosion or at any time when the presence of an unauthorized activity or structure is brought to the attention of municipal officials.

## VII. MANAGEMENT OF THE STREAM BUFFER CONSERVATION AREA

- A. Stream Buffer Management Plan – With the exception of uses permitted by right, no construction, development, use, activity, encroachment or structure shall be permitted within any Stream Buffer Conservation Area unless the effects of such development are mitigated by the implementation of an approved Stream Buffer Management Plan.
  - 1. At the time of submission of an application to the Construction Code Office for a construction permit or to the Planning Board or Board of Adjustment for approval of a development plan, or prior to commencing any use/activity that does not require a construction permit or development plan approval, the landowner or developer shall submit to the municipal engineer, or appointed representative, a proposed Stream Buffer Management Plan prepared by a landscape architect, professional engineer or other qualified professional. The proposed plan shall fully evaluate the effects of all proposed uses/activities on the Stream Buffer Conservation Area. The Stream Buffer Management Plan shall identify the existing conditions (vegetation, 100-year floodplain, soils, slopes, etc.), all proposed uses/activities, and all proposed management techniques, including proposed vegetation and any other measures necessary to offset disturbances to the Stream Buffer Conservation Area. The plan shall be approved by the municipal engineer, or appointed representative.
  - 2. Vegetation Selection. Dominant vegetation in the Stream Buffer Management Plan shall consist of plant species that are suited to the stream buffer environment. The municipality may require species suitability to be verified by qualified experts in the Morris County Conservation District, Natural Resources Conservation Service, NJ Department of Environmental Protection, the U.S. Fish and Wildlife Service, or state and federal forest agencies.
    - a. In Zone One, dominant vegetation shall be composed of a variety of native stream trees, shrubs, and tall grasses and shall include species that will provide streambank stabilization.
    - b. In Zone Two, dominant vegetation shall be composed of stream trees and shrubs, with an emphasis on native species and appropriate plantings necessary for water filtration.

- c. Disturbed areas shall be revegetated with stream buffer plants, in compliance with an approved Stream Buffer Management Plan.
  - d. Areas that cannot be revegetated shall be restored in compliance with an approved Stream Buffer Management Plan.
3. Performance Guarantee. Performance of the Stream Buffer Management Plan shall be guaranteed by a surety, such as a bond, cash or letter of credit, which shall be provided to the municipality prior to the issuing of any permits or approving any uses relating to the applicable use or activity.