

**ORDINANCE No. 2014-003**

**AN ORDINANCE AMENDING THE DEVELOPMENT ORDINANCE OF THE BOROUGH OF MILLSTONE, SOMERSET COUNTY, NJ by adding the ENVIRONMENTAL AND RESOURCE PROTECTION CODE**

**WHEREAS**, the Borough Council of the Borough of Millstone petitioned to the State Planning Commission for

Plan Endorsement on June 18, 2007; and

**WHEREAS**, on December 19, 2012 the Plan Implementation Committee, a subcommittee of the State Planning

Commission, approved a revised Action Plan that outlined outstanding items that the Borough of Millstone needs

to address prior to receiving Plan Endorsement; and

**WHEREAS**, the Borough Council of the Borough of Millstone approved on March 21st, 2013 a Memorandum of

Understanding between the Borough of Millstone and the Office of Planning Advocacy to memorialize the Action

Plan, as revised; and

**WHEREAS**, the Planning Board has made and transmitted to the Governing Body, a report recommending

appropriate amendments to various provisions of the Development Ordinance of the Borough of Millstone that are

consistent with the requirements of the approved Action Plan, as revised, in accordance and consistent with, C.

40:55D-26 of the NJ Municipal Land Use Law; and

**WHEREAS**, after thorough consideration, the Governing Body of the Borough of Millstone finds that the

amendments as proposed, are substantially consistent with, and/or are designed to effectuate, the provisions of the

approved revised Action Plan and the Land Use Plan Element of the Borough of Millstone Master Plan of 2005, in

accordance with C. 40:55D-62 of the NJ Municipal Land Use Law,

**NOW THEREFORE, BE IT ORDAINED**, by the Borough Council of the Borough of Millstone, County of

Somerset, State of New Jersey that Article II: Zoning of the Development Ordinance of the Borough of Millstone

shall be amended as follows:

**SECTION ONE: Amend Article II. Zoning by inserting after D-106 the following:  
D-106.1 Environmental and Resource Protection Code of the Borough of Millstone**

**A. General provisions**

**(1) Purpose and findings**

The purpose and intent of this subsection is to encourage good land use planning and design, to protect and conserve the valuable and environmentally sensitive natural features and resources within the Borough, and to prevent the long-term degradation of the environment for the common benefit of the community in conformance with the purpose of the Municipal Land Use Law N.J.S.A. 40:55D-2j; to implement the recommendations of the Conservation Plan Element of the Millstone Borough Master Plan of 2005, as well as protect the quality of life and the character of the natural and built environment; and to protect the health, safety and welfare of the people and property of the Borough.

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(a) The purpose of the following sections is to promote sound development and redevelopment practices by limiting, restricting and prohibiting development from areas of a site, parcel, tract or lot that are not appropriately suited for said development activity and by doing so, guiding to the greatest extent practicable said activities in other areas within the same site, parcel, tract or lot, which are intrinsically suited for site disturbance and/or development activities.

(b) This section is specifically not intended to reduce or otherwise limit gross density as defined by the Municipal Land Use Law and this subsection. The following paragraphs and the process contained therein are an integral component, and fundamental basis for, the planning and design of all sites, parcels, tracts and lots within the Borough of Millstone.

**(2) Definitions**, as used in this ordinance

**(a) Cut** means a location where a slope has been steepened by an excavation

**(b) Category One waters** (C1 waters) shall have the meaning ascribed to this term by the Surface Water Quality Standards, N.J.A.C. 7:9B.

**(c) DBH** means the diameter of the trunk measured at a point 4 1/2 feet from the ground. If the tree is growing on a slope, the measurement shall be taken from the uphill side of the slope. If the tree has a branch or an abnormal swelling at 4.5 feet, the measurement should be taken at a point below the intrusion where the trunk returns to normal size. Any diameter measurement that is not taken at 4.5 feet should include the actual height where it was measured.

**(d) Disturbance** means the placement of impervious surface, the exposure or movement of soil or bedrock, or the clearing, cutting, or removing of vegetation.

**(e) Flood plain** means the relatively flat area adjoining the channel of a natural stream which has been or may be hereafter covered by flood water.

**(f) Grading** means any soil stripping, cutting, filling, stockpiling, or any combination thereof, which shall include the land in its cut or filled condition.

**(g) Historic tree** means trees that are of unique historical value, as determined by the Planning Board in consultation with the Millstone Borough Historical Society, and therefore constitute an important community resource.

**(h) Percent slope** means increase in vertical elevation in feet divided by horizontal distance in feet, with the result multiplied by 100

**(i) Regulated tree** means any living tree having trunk caliper of six inches or greater measured at a height of four and one half feet (forestry method) above natural grade.

**(j) Riparian zone management plan** means a plan prepared by a landscape architect, professional engineer or other qualified professional and evaluating the effects of any proposed activity/uses on any riparian zone. The plan shall identify existing conditions, all proposed activities, and all proposed management techniques, including any measures necessary to offset disturbances to any affected riparian zone.

**(l) Riparian zone** means the land and vegetation within and directly adjacent to all surface water bodies including, but not limited to lakes, ponds, reservoirs, perennial and intermittent streams, up to and including their point of origin, such as seeps and springs, as shown on the CVDA 3/21 printed 3/6/14

New Jersey Department of Environmental Protection's GIS hydrography coverages or, in the case of a Special Water Resource Protection Area (SWRPA) pursuant to the Stormwater Management rules at N.J.A.C. 7:8-5.5(h), C1 waters as shown on the USGS quadrangle map or in the County Soil Surveys. It is delineated in the manner set forth in Section D-106.1 C (2) – (16)

**(n) Specimen tree** means any of the following:

i A tree with a DBH or circumference equal to or greater than seventy-five (75%) percent of that of the largest tree in New Jersey of the same species as listed by the New Jersey

Department of Environmental Protection

ii A tree greater than thirty-six (36") inches DBH

iii A coniferous tree greater than one hundred (100') feet in height

iv A tree of any size listed as a rare, threatened or endangered species by the New Jersey

Department of Environmental Protection

v A dogwood (*Cornus florida*) greater than ten (10") inches DBH

vi A tree one hundred (100) or more years of age

**(o) Stream** means 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 USDA Soil Survey Map of the most recent edition.

**(p) Stripping** means any activity which removes or disturbs the vegetative surface cover including clearing and grubbing operations.

**(q) Surface water body** means any perennial stream, intermittent stream, lake, pond, or reservoir. In addition, any state open waters identified in a letter of interpretation issued by the New Jersey Department of Environmental Protection Land Use Regulation Program shall also be considered surface water bodies.

**(r) Tree removal** means any action that results in the death or significant degradation of the health or vigor of a living tree including but not limited to the following:

i Cutting the main stem of the tree;

ii Girdling the main stem of the tree;

iii Excessive pruning;

iv Placement of greater than six (6") inches of fill within the drip line;

v Excavation within the drip line;

vi Tilling of soil within the drip line;

vii Compaction of soil within the drip line;

viii Placement of or application of any material, chemicals or other substance, whether on the ground or upon the tree or its root system, which will impede the free access of air and water to a tree's living components.

ix Application of any substance to any part of a tree, including roots, with the intention to injure, kill or destroy a tree; and

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x Flooding or changes in natural soil moisture.

**(s) Tree removal application** means the application form, as approved by the Borough Council, to be submitted by an applicant in connection with any proposed tree removal activity as described in this ordinance.

**(t) Tree removal application fee** means the fee, as approved by the Borough Council, to be collected with each tree removal application submitted to the Borough of Millstone.

**(u) Tree removal permit** means written authorization issued by the Millstone Borough Zoning Officer authorizing the removal of a designated tree or trees identified in the applicant's tree removal permit application.

**(v) Tree replacement procedures** means the minimum standards set forth in Section D-106.1 regarding planting requirements for replacement trees and including but not limited to those set forth in Section D, as well as those set forth as accepted nursery practices and/or recommended practices of the American Nursery and Landscape Association.

**(w) Vegetative protection** means stabilization of erosive or sediment producing areas by covering the soil with:

i Permanent seeding, producing long-term vegetative cover,

ii Short-term seeding, producing temporary vegetative cover, or

iii Sodding, placement of cultivated sod onto prepared topsoil causing instant soil stabilization.

**(3) Applicability**

**(a) General**

In order to promote environmental soundness in the development of property and in the layout and design of site plans and subdivisions, the natural resource regulations and restrictions within this Environmental Protection Code shall apply to the following activities within the Municipality:

- i All applications for major subdivision, site plan or conditional use approval, as those terms are defined in this Ordinance and the MLUL.
- ii Any site disturbance 3000 square feet or greater, or for which the N.J. Uniform Construction Code would require a building permit.

**(b) Exemptions**

- i Nothing herein shall be construed to prohibit the use of land for farming activities, provided that such use is permitted in the zone in which the property is located and is consistent with all other applicable Municipal, County and State regulations, or for which property has an approved Agricultural Management Plan, Farm Conservation Plan or Woodland Management Plan.
- ii Development applications that received planning board approval prior to the adoption date of this ordinance shall be exempt.

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**(4) Conflicts**

All other ordinances, parts of ordinances, or other local requirements that are inconsistent or in conflict with this ordinance are hereby superseded to the extent of any inconsistency or conflict, and the provisions of this ordinance apply.

**(5) Severability**

Notwithstanding that any provision of this Ordinance is held to be invalid or unconstitutional by a court of competent jurisdiction, all remaining provisions of the Ordinance shall continue to be of full force and effect.

**(6) Enforcement, violation, and penalties**

A prompt investigation shall be made by the appropriate personnel of the Borough of Millstone, of any person or entity believed to be in violation hereof. If, upon inspection, a condition which is in violation of this Ordinance is discovered, Section D-138D of this ordinance shall apply.

**B. Steep slopes**

**(1) Legislative purpose and findings**

The purpose of this section is to regulate the intensity of use in areas of steeply sloping terrain in order to limit soil loss, excessive stormwater runoff, and the degradation of surface water, and to maintain the natural topography and drainage patterns of land.

Disturbance of steep slopes results in accelerated erosion processes from stormwater runoff and subsequent sedimentation of water bodies with associated degradation of water quality and loss of support for aquatic life. Related effects include soil loss, changes in natural topography and drainage patterns, increased flooding potential, further fragmentation of forest and habitat areas, and compromised aesthetic values. It has become widely recognized that disturbance of steep slopes should be restricted or prevented due to the potential impact on water quality and quantity, and the environmental integrity of landscapes.

**(2) Designation of areas**

Steep slope areas shall be designated or excluded based on site-specific topographic mapping to be prepared by a land surveyor licensed in the State of New Jersey, or utilizing the best available topographic information as determined by the Borough Engineer or Planner. The percent of slope shall be established for each two-foot contour interval.

**(3) Steep slope disturbance limits**

- (a) No disturbance shall be permitted on slopes of 25% or greater in steepness.
- (b) Maximum disturbance allowed in steep slope areas
  - i For slopes of 20% or greater but less than 25% in steepness: a maximum of 10% of the

total slope area is allowed to be disturbed.

ii For slopes of 15% or greater but less than 20% in steepness: a maximum of 20% of the total slope area is allowed to be disturbed.

iii Slopes less than 15% in steepness have no steep slope restrictions and are regulated by the site development standards pertinent to the zoning in which the property lies.

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(c) Any proposed disturbance for roadway crossings or utility construction in areas of 25% slopes or greater shall require variance application and approval, and in addition to the required MLUL burden of proof, the applicant must affirmatively demonstrate, via analysis of alternatives, that the roadway or utility improvements are necessary in the sloped area and affect the sloped area to minimum extent possible.

(d) Site design and grading on slopes greater than 15% shall provide the minimum disruption of view corridors and scenic vistas and shall preserve significant natural topographic features, including ridgelines, to the greatest extent possible. Roads and driveways shall follow the natural topography to the greatest extent possible to minimize the cutting and grading of critical slope areas.

(e) Except in conformance with a woodland management plan approved by the State of New Jersey and County Soil Conservation District, no trees with a diameter at breast height of six (6") inches or more shall be removed from that portion of a lot with slopes greater than 15%.

#### **(4) Exemptions**

(a) Previously existing artificially-created landscaping features, such as garden mounds or the transitions between terraces shall be exempt from calculating slopes for designation of steep slope areas as defined under this ordinance.

(b) Redevelopment within the limits of existing impervious surfaces.

(c) Site disturbance of a restricted steep slope area with a gross area of less than 500 square feet shall be exempt from these standards. Note: Site developers of small-scale exempt projects are encouraged to become familiar with the technical requirements and Performance Standards within this ordinance and to implement best management practices for protection of steep slope areas on the development site.

(d) Site disturbance for the construction of one (1) single-family dwelling unit involving a gross area of disturbance of less than 3000 square feet and not part of a development involving two (2) or more such units. Note: Site developers of such projects are encouraged to become familiar with the technical requirements and Performance Standards within this ordinance and to implement best management practices for protection of steep slope areas on the development site.

(e) Site development or redevelopment for the purpose of non-commercial home gardening or horticulture primarily for home consumption, provided such activity involves the disturbance of less than 500 square feet.

#### **(5) Performance standards for steep slopes**

The Borough Engineer or Planner, when reviewing an application to disturb steep slopes as defined herein or when reviewing an application for variance relief from the requirements of this ordinance, shall submit a report with recommendations to the Planning Board for each application. The Applicant shall comply with and demonstrate the following:

(a) That the disturbance of the steep slope area is necessary for the proposed development of the subject tract or lot and that such development is otherwise in accordance with the applicable ordinance provisions of the Borough of Millstone.

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(b) That the proposed development has utilized the areas of the tract with steep slopes of less than 15% to the extent reasonably practicable and that an attempt has been made to minimize the disturbance of the steep slope areas by limiting development to isolated areas

of steep slopes;

(c) That appropriate re-vegetation and landscaping of the disturbed steep slope areas will be provided so as to adequately stabilize the slopes and enhance the attractiveness of the site, all in accordance with accepted soil conservation and stormwater management techniques.

(d) That the proposed disturbance of the steep slope area minimizes the impairment of the visual quality of the site.

(e) That:

i any geologic disturbance, including blasting, cutting, or excavating, resulting from the development of a steep slope area will be satisfactorily mitigated; and

ii the cost of providing and maintaining public facilities and services to those portions of the site where steep slope areas are to be disturbed will not be substantially increased as a result of such disturbance.

**(6) Design standards for lot grading plans shall be pursuant to the following:**

(a) No soil shall be excavated, removed, deposited or disturbed except as a result of and in accordance with a lot grading plan approved under the terms of this Section D-106.1.

(b) Proposed disturbance of soil shall be, for purposes consistent with the intent of this Section D-106.1, executed in a manner that will not cause erosion or other unstable conditions.

(c) Provision shall be made for the proper disposition of surface water runoff so that it will not increase unstable conditions. Appropriate storm drainage facilities shall be provided for downstream properties.

(d) Provision shall be made for any structure or other protective measures that proposed slopes may require for the protection of the public safety, including but not limited to retaining walls, guide rails, headwalls and fences.

(e) Any proposed building or structure or attendant protective measures shall not impede the flow of surface water through any watercourse. Only a nominal increase in water surface elevation and velocities will be allowed due to construction.

(f) Any proposed vehicular facilities, including roads, drives or parking areas, shall be so designed that any land disturbances shall not cause excessive erosion. Both the vertical and horizontal alignment of vehicular facilities shall be so designed that hazardous circulation conditions will not be created.

(g) Any fill placed on the lot shall be properly stabilized and, when found necessary depending upon existing slopes and soil types, supported by retaining walls or other appropriate structures as approved by the Borough Engineer or Planner.

(h) All cuts shall be supported by retaining walls or other appropriate retaining structures when, depending upon the nature of the soil characteristics, such structures are found necessary by the Borough Engineer or Planner in order to prevent erosion.

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(i) There shall be no alteration of site elevations in excess of one foot within five feet of an adjoining property.

(j) Changes in grade shall not exceed a slope of 2 to 1 unless supported by retaining walls.

(k) No retaining wall on a residential site shall exceed six feet in height, and there shall be at least 10 feet between stepped retaining walls. All retaining walls greater than three (3') in height require a certification by a professional engineer that the wall was constructed in accordance with approved plans.

**(7) Submission requirements: grading/driveway/drainage plan**

(a) Any applicant proposing to disturb steep slopes with the Borough of Millstone shall submit a site grading/driveway/drainage plan prepared by a Professional Engineer. The plan submitted shall be subject to review and approval by the Planning Board after review by the Borough Engineer or Planner before to the issuance of a building permit. The Borough Engineer or Planner shall determine if the site plan as submitted is complete and in conformance with the ordinance requirements. The Borough Engineer or Planner may

require that specific conditions be complied with in order for the plan to merit acceptance.

(b) Said plan shall include the following information in addition to all other applicable requirements of the Millstone Borough Development Ordinance:

i **Steep slope analysis:** Slopes in classes of less than 15%, 15% but less than 20%, 20 % but less than 25%, and 25% or greater based on two foot (2') contour analyzed on ten foot (10') vertical intervals.

ii **Site analysis:**

a. Location of all water bodies including, but not limited to streams, lakes and wetlands.

b. Existing natural and topographic features.

c. Location of all existing vegetation including meadow and forest broken down by those areas of vegetation which will be removed as well as vegetation to be preserved. Specifications for revegetation shall also be included.

d. Location of all proposed and existing buildings and streets.

iii **Soil and sedimentation plan**

a. Specific methods that will be utilized to control soil erosion and sedimentation, soil loss and excessive stormwater runoff both during and after construction.

b. A statement and description of the stability of the soils on site and the appropriateness of the construction method proposed.

iv **Hydrology, drainage and flooding analysis** to include a statement on:

a. The effect of the proposed development upon water bodies or wetlands in the vicinity of the project.

b. The underlying geology, which must attest to and demonstrate the stability of the site.

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c The building methods to be used in overcoming foundation and other structural problems created by slope conditions, preserving the natural watersheds, and preventing soil erosion and excessive surface water runoff onto neighboring properties and/or streets.

v **Grading plan** for the construction site and all access routes. Signed and sealed by a Professional Engineer or Landscape Architect.

vi **Architectural plans** signed and sealed by the Architect or Professional Engineer, showing plans, elevations, and sections.

vii **Calculations of the area of proposed disturbance** of each slope class on each proposed lot as well as within any proposed road right-of-way.

(c) No building permit shall be issued and no grading or site clearing shall occur until a plan including all of the above items has been reviewed and approved by the Planning Board after review by the Borough Engineer or Planner.

**(8) Fees:**

A fee of \$400 shall be payable to the Borough for review of the lot grading/driveway/drainage plan.

**C. Riparian zones**

**(1) Legislative purpose and findings**

Riparian buffers are vegetated areas next to water resources that protect water resources from non-point source pollution, provide bank stabilization and aquatic and wildlife habitat, and reduce accelerated erosion processes from stormwater runoff. Damage to riparian buffers and result in soil loss, changes in natural topography and drainage patterns, increased flooding potential, further fragmentation of forest and habitat areas, and compromised aesthetic values. The specific purposes of this section are to:

(a) Restore and maintain the chemical, physical, and biological integrity of the water resources

of the Borough of Millstone.

(b) Prevent excessive nutrients, sediment, and organic matter, as well as biocides and other pollutants, from reaching surface waters by optimizing opportunities for filtration, deposition, absorption, adsorption, plant uptake, biodegradation, and de-nitrification, which occur when stormwater runoff is conveyed through vegetated buffers as stable, distributed flow prior to reaching receiving waters.

(c) Provide for shading of the aquatic environment to moderate temperatures, retain more dissolved oxygen, and support a healthy assemblage of aquatic flora and fauna.

(d) Provide for the availability of natural organic matter (leaves and twigs) and large woody debris (trees and limbs) that provide food and habitat for aquatic organisms (insects, amphibians, crustaceans, and small fish), which are essential to maintain the food chain.

(e) Increase stream bank stability and maintain natural fluvial geomorphology of the stream system, thereby reducing stream bank erosion and sedimentation, and protecting habitat for aquatic organisms.

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(f) Maintain base flows in streams and moisture in wetlands.

(g) Control downstream flooding.

(h) Conserve the natural features important to land and water resources, e.g., headwater areas, ground water recharge zones, floodways, floodplains, springs, streams, wetlands, woodlands, and prime wildlife habitats.

## **(2) Establishment and protection of riparian zones**

Riparian zones adjacent to all surface water bodies shall be protected from avoidable disturbance and shall be delineated as set forth below:

(a) Exception: This ordinance does not include separate delineations for Category 1 waters as designated by the Surface Water Quality Standards, N.J.A.C. 7:9B, none of which are present in Millstone Borough. In addition, there are no Category 1 upstream tributaries situated within the Millstone HUC 14 watershed. In the event that any waters in the Millstone HUC 14 watershed are re-classified and upgraded as Category 1, the Borough shall revise provisions of this ordinance to include Category 1 protection.

(b) A riparian zone shall be maintained at 150 feet wide along each side of a water body for a total width of 300' of the following waters:

(i) Any trout production water and all upstream waters (including tributaries);

(ii) Any trout maintenance water and all upstream waters (including tributaries) within one linear mile of and as measured along the length of the regulated water;

(iii) Any segment of a water flowing through an area that contains documented habitat for a threatened or endangered species of plant or animal, which is critically dependent on the surface water body for survival, and all upstream waters (including tributaries) within one linear mile of and as measured along the length of the regulated water; and

(iv) Any segment of a water flowing through an area that contains acid-producing soils.

(c) A riparian zone of fifty (50') feet wide shall be maintained along all sides of all other surface water bodies.

## **(3) Measurement of riparian zones**

The portion of the riparian zone that lies outside of a surface water body is measured landward from the top of bank. If a discernible bank is not present along a surface water body, the portion of the riparian zone outside the surface water body is measured landward as follows:

(a) Along a linear fluvial water, such as a stream or swale, the riparian zone is measured landward from the feature's centerline.

(b) Along a non-linear fluvial water, such as a lake or pond, the riparian zone is measured landward from the normal water surface limit.

(c) Along an amorphously-shaped feature such as a wetland complex, through which water flows but which lacks a discernible channel, the riparian zone is measured landward from the feature's centerline.



(d) Where slopes in excess of 15% are located within the designated widths, the riparian zone shall be extended to include the entire sloped area in excess of 15% to a maximum of 300 feet.

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(e) For areas adjacent to surface water bodies for which the floodway has been delineated per the Flood Hazard Area Control Act rules at N.J.A.C. 7:13-3 or the State's adopted floodway delineations, the riparian zone shall cover the entire floodway area, or the area described in subsection D-106.1 B(2). above, whichever area has the greatest extent.

**(4) Riparian zone as overlay**

A riparian zone is an overlay to the existing zoning districts. The provisions of the underlying district shall remain in full force except where the provisions of the riparian zone differ from the provisions of the underlying district, in which case the provision that is more restrictive shall apply. These provisions apply to land disturbances resulting from or related to any activity or use requiring application for any of the following permits or approvals:

- (a) Building permit
- (b) Zoning variance
- (c) Conditional use approval
- (d) Subdivision or site plan approval

**(5) Map of riparian zones**

A map of the riparian zones for the Borough of Millstone is included as an appendix to this section and shall be on file and maintained by the office of the Clerk of the Borough of Millstone. (See Figures 1 & 2) Note: It shall be the responsibility of the Applicant to verify all riparian zones on his/her survey and application.

**(6) Initial determination of riparian zones**

- (a) The applicant shall be responsible for the initial determination of the presence of a riparian zone on a site and for identifying the area on any plan submitted to Millstone Borough in conjunction with an application for development or building permit.
- (i) This initial determination shall be subject to review and approval by the Borough Engineer or Planner and, where required, by the New Jersey Department of Environmental Protection.

**(7) Exemptions**

Exemptions may only be granted by the Planning Board. For an exemption, the applicant must demonstrate that the proposed disturbance:

- (a) Is for a linear development with no feasible alternative route.
- (b) Is in accordance with a stream corridor restoration or stream bank stabilization plan or project approved by the New Jersey Department of Environmental Protection.
- (c) Is necessary to provide for public pedestrian access or water dependent recreation that meets the requirements of the Freshwater Wetlands Protection Act rules, N.J.A.C. 7:7A, the Flood Hazard Area Control Act rules, N.J.A.C. 7:13, or the Coastal Zone Management rules, N.J.A.C. 7:7E.
- (d) Is required for the remediation of hazardous substances performed with New Jersey Department of Environmental Protection or Federal oversight pursuant to the Spill Compensation and Control Act, N.J.S.A. 58:10- 23.11a et seq. or the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§9601 et seq.

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- (e) Is for redevelopment that does not exceed the limits of existing impervious surfaces.
- (f) Would prevent extraordinary hardship on the property owner peculiar to the property, provided the hardship was not created by the property owner, and that without the exemption there would be no minimum economically viable use of the property.

**(8) Performance standards for riparian zones**

- (a) All new major and minor subdivisions and site plans shall be designed to provide sufficient

areas outside of the riparian zone to accommodate primary structures, any accessory uses appurtenant thereto, as well as all planned lawn areas.

(b) Portions of lots within the riparian zone must be permanently restricted by deed or conservation easement granted to the Borough of Millstone or its designee. A complete copy of the recorded conservation restriction that clearly identifies the deed book and pages where it has been recorded in the office of the Somerset County Clerk must be submitted to the Borough.

(c) The recorded conservation restriction shall be in the form approved by the municipality and shall run with the land and be binding upon the property owner and its successors in interest.

(d) Conservation restriction requirements

i A written narrative of the authorized regulated activity permitted pursuant to Subsection D-106.1 C(9) herein, date of issuance, and date of expiration, and the conservation restriction that, in addition, includes all of the prohibitions set forth at N.J.S.A. 13:8B-2b(1) through (7);

ii Survey plans for the property as a whole and, where applicable, for any additional properties subject to the conservation restrictions. Such survey plans shall be submitted on the surveyor's letterhead, signed and sealed by the surveyor, and shall include metes and bounds descriptions of the property, the site, and the areas subject to the conservation restriction in New Jersey State Plane Coordinates, North American Datum 1983, and shall depict the boundaries of the site and all areas subject to the conservation restriction as marked with flags or stakes onsite. All such survey plans shall be submitted on paper and in digital CAD or GIS file on a media and format defined by the municipality. The flags or stakes shall be numbered and identified on the survey plan; and

(e) Any lands proposed for development which include all or a portion of a riparian zone shall as a condition of any subdivision or site plan approval provide for the vegetation or revegetation of any portions of the riparian zone which are not vegetated at the time of the application or which were disturbed by prior land uses, including for agricultural use. Said vegetation plan shall utilize native and non-invasive tree and plant species to the maximum extent practicable in accordance with an approved Riparian Zone Management Plan, described subsection D-106.1 C(13) herein.

(f) For building lots which exist as of the date of adoption of this ordinance, but for which a building permit or a preliminary site plan approval has not been obtained or is no longer valid, the required minimum front, side, and rear setbacks may extend into the riparian zone, provided that a deed restriction and/or conservation easement is applied which prohibits clearing or construction in the riparian zone.

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(g) All stormwater shall be discharged outside of, but may flow through, a riparian zone and shall comply with the Standard For Off-Site Stability in the "Standards for Soil Erosion and Sediment Control in New Jersey", established under the Soil Erosion and Sediment Control Act, N.J.S.A. 4:24-39 et seq. (see N.J.A.C. 2:90-1.3.)

(h) If stormwater discharged outside of and flowing through a riparian zone cannot comply with the Standard for Off-Site Stability cited in D-106.1 C(8)(g) above, then the proposed stabilization measures must meet the requirements of the Flood Hazard Area Control Act rules at N.J.A.C. 7:13-10.2 et seq., and have an approved flood hazard area permit.

#### **(9) Uses permitted in riparian zones**

(a) Any riparian zone area shall remain in a natural condition or, if in a disturbed condition, including agricultural activities, at the time of adoption of this ordinance, may be restored to a natural condition. There shall be no clearing or cutting of trees and brush, except for removal of dead vegetation and pruning for reasons of public safety or for the replacement of invasive species with indigenous species. There shall be no altering of watercourses,

dumping of trash, soil, dirt, fill, vegetative or other debris, regrading or construction.

(b) The following uses are permitted either by right or after review and approval by the Planning Board in riparian zones. No new construction, development, use, activity, encroachment, or structure shall take place in a riparian zone, except as specifically authorized in this subsection. The following uses shall be permitted within a riparian zone:

i Open space uses that are primarily passive in character shall be permitted by right to extend into a riparian zone, provided near stream vegetation is preserved. Such uses include wildlife sanctuaries, nature preserves, forest preserves, fishing areas and fishing reserves operated for the protection and propagation of wildlife, but excluding structures. Such uses also include passive recreation areas of public and private parklands, including unpaved hiking, bicycle and bridle trails, provided that said trail have been stabilized with pervious materials.

ii Fences for which a permit has been issued by the Zoning Office, if required by applicable law.

iii Crossings by farm vehicles and livestock, recreational trails, roads, storm water lines, sanitary sewer lines, water lines and public utility transmission lines, provided that the land disturbance is the minimum required to accomplish the permitted use, subject to approval by the Planning Board.

iv Stream bank stabilization or riparian reforestation or wetlands mitigation projects that have been approved by the New Jersey Department of Environmental Protection, subject to approval by the Planning Board.

#### **(10) Nonconforming structures and uses in riparian zones**

Nonconforming structures and uses of land within the riparian zone are subject to the following requirements:

(a) Legally existing but nonconforming structures or uses may be continued.

(b) Encroachment within the riparian zone shall only be allowed where previous development or disturbance has occurred and shall be in conformance with the Stormwater Management rules, N.J.A.C. 7:8, and the Flood Hazard Area Control Act rules, N.J.A.C. 7:13.

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(c) Existing impervious cover shall not be increased within the riparian zone as a result of encroachments where previous development or disturbances have occurred.

(d) Discontinued nonconforming uses may be resumed any time within one year from such discontinuance but not thereafter when showing clear indications of abandonment. No change or resumption shall be permitted that is more detrimental to the riparian zone, as measured against the intent and purpose under subsection D-106.1 C(1), than the existing or former nonconforming use. This one-year time frame shall not apply to agricultural uses that are following prescribed Best Management Practices for crop rotation. However, resumption of agricultural uses must be strictly confined to the extent of disturbance existing at the time of adoption of this ordinance.

#### **(11) Uses prohibited in riparian zones**

Any use or activity not specifically authorized in subsections D-106.1 C(9) and D-106.1 C(10) shall be prohibited within the riparian zone. By way of example, the following activities and facilities are prohibited:

(a) Removal or clear-cutting of trees and other vegetation or soil disturbance such as grading, except for selective vegetation removal for the purpose of stream or riparian area stabilization or restoration projects that require vegetation removal or grading prior to implementation.

(b) Storage of any hazardous or noxious materials.

(c) Use of fertilizers, pesticides, herbicides, and/or other chemicals in excess of prescribed industry standards or the recommendations of the Soil Conservation District.

(d) Roads or driveways, except where permitted in compliance with subsection D-106.1 C(9).

- (e) Motor or wheeled vehicle traffic in any area, except as permitted by this Ordinance.
- (f) Parking lots.
- (g) Any type of permanent structure, except structures needed for a use permitted by subsection D-106.1 C(9).
- (h) New subsurface sewage disposal system areas. The expansion and replacement of existing subsurface sewage disposal system areas for existing uses is permitted.
- (i) Residential grounds or lawns, except as otherwise permitted pursuant to this Ordinance.
- (j) Dumping of solid waste, construction debris, or any other vegetative or non-vegetative material.

**(12) Activities permitted in riparian zones in the case of no reasonable or prudent alternative or extreme hardship**

(a) Hardship variances may be granted by the Planning Board in cases of a preexisting lot (existing at the time of adoption of this ordinance) when there is insufficient room outside the riparian zone for uses permitted by the underlying zoning and there is no other reasonable or prudent alternative to placement in the riparian zone, including obtaining variances from setback or other requirements that would allow conformance with the riparian zone requirements, and provided the following demonstrations are made:

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i That the subject property is not capable of yielding a reasonable economic return if its present use is continued or if it is developed in accordance with provisions of this ordinance and that this inability to yield a reasonable economic return results from unique circumstances peculiar to the subject property which:

- a. Do not apply to or affect other property in the immediate vicinity.
- b. Relate to or arise out of the characteristics of the subject property because of the particular physical surroundings, shape or topographical conditions of the property involved, rather than the personal situations of the applicant, and are not the result of any action or inaction by the applicant or the owner or his or her predecessors in title.

c. The necessity of acquiring additional land to locate development outside the riparian zone shall not be considered an economic hardship unless the applicant can demonstrate that there is no adjacent land that is reasonably available or could be obtained, utilized, expanded or managed in order to fulfill the basic purpose of the proposed activity.

ii That the use is a compelling public need, as demonstrated by any of the following:

- a. The proposed project will serve an essential public health or safety need.
- b. The proposed use is required to serve an existing public health or safety need.
- c. There is no alternative available to meet the established public health or safety need.

iii A variance can only be granted if it is shown that the activity is in conformance with all applicable local, state, and federal regulations, other than section D-106.1 C(9) including but not limited to the Stormwater Management rules, N.J.A.C. 7:8, and the Flood Hazard Area Control Act rules, N.J.A.C. 7:13, and that the variance granted is the minimum relief necessary to relieve the hardship.

(b) If such a variance is granted, the applicant shall rehabilitate an environmentally degraded riparian zone area within or adjacent to the same site and at least equivalent in size to the riparian zone reduction permitted or, if not possible, rehabilitate or expand a riparian zone area at least equivalent in size within a nearby site and, if available, within the same watershed. Rehabilitation shall include reforestation, stream bank stabilization and removal of debris, in accordance with a Riparian Zone Management Plan, as described in subsection D-106.1 C(13) herein.

**(13) Submission requirements: Riparian Zone Management Plan**

(a) Within any riparian zone, no construction, development, use, activity, or encroachment shall

be permitted unless the effects of such development are accompanied by preparation, approval, and implementation of a Riparian Zone Management Plan.

(b) The applicant shall submit to the Zoning Officer a Riparian Zone Management Plan prepared by an environmental professional, professional engineer or other qualified professional which fully evaluates the effects of any proposed uses on the riparian zone. The Riparian Zone Management Plan shall identify the existing conditions including:

i Existing vegetation.

ii Field delineated surface water bodies.

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iii Field delineated wetlands.

iv The 100-year floodplain.

v Flood Hazard Areas, including floodway and flood fringe areas, as delineated by the New Jersey Department of Environmental Protection.

vi Soil classifications as found on Soil Surveys.

vii Existing subdrainage areas of site with HUC (Hydrologic Unit Code) 14 designations.

viii Slopes in each subdrainage area segmented into sections of slopes less than 15%, 15% but less than 20%; 20% but less than 25%, and 25% or greater.

(c) The proposed plan shall describe all proposed uses/activities and fully evaluate the effects of all proposed uses/activities in a riparian zone and all proposed management techniques, including proposed vegetation and any other measures necessary to offset disturbances to the riparian zone. A discussion of activities proposed as well as management techniques proposed to offset disturbances and/or enhance the site to improve the riparian zone's ability to function effectively as a riparian zone shall also be included with the Riparian Zone Management Plan.

(d) The Plan shall be reviewed and must be approved by the Planning Board, in consultation with the Environmental Commission, as part of the subdivision, land development, or building permit process.

(e) The Riparian Zone Management Plan submission must include management provisions in narrative and/or graphic form specifying:

i The manner in which the area within the riparian zone will be owned and by whom it will be managed and maintained.

ii The conservation and/or land management techniques and practices that will be used to conserve and protect the riparian zone, as applicable.

iii The professional and personnel resources that are expected to be necessary, in order to maintain and manage the riparian zone.

iv A revegetation plan, if applicable, that includes: three (3) layers of vegetation, including herbaceous plants that serve as ground cover, understory shrubs, and trees that when fully mature, will form an overhead canopy. Vegetation selected must be native, noninvasive species, and consistent with the soil, slope and moisture conditions of the site as listed herein. The revegetation plan shall be prepared by a qualified environmental professional, landscape architect, or professional engineer, and shall be subject to the approval of the Planning Board, in consultation with the Environmental Commission. Dominant vegetation in the Riparian Zone Management Plan shall consist of plant species that are suited to the riparian zone environment. The Planning Board may require species suitability to be verified by qualified experts from the Soil Conservation District, Natural Resources Conservation Service, New Jersey Department of Environmental Protection, US Fish and Wildlife Service and/or State or Federal forest agencies.

(f) A Riparian Zone Management Plan is not required where the riparian zone is not being disturbed.

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(g) Performance of the Riparian Zone Management Plan shall be guaranteed to the Borough of Millstone for a minimum of two years by a surety, such as a bond, cash or letter of credit, which shall be provided to the Borough of Millstone prior to the Borough of Millstone issuing any permits or approving any uses relating to the applicable use or activity.

**(14) Boundary interpretation, appeals procedures, inspections, conflicts**

(a) When a landowner or applicant disputes the boundaries of a riparian zone or the defined bank-full flow or level, the landowner or applicant shall submit evidence to the Borough Zoning Officer that describes the riparian zone, presents the landowner or applicant's proposed riparian zone delineation, and presents all justification for the proposed boundary change, including but not limited to, a verification issued under the Flood Hazard Area Control Act rules at N.J.A.C. 7:13-6, or an approval from the New Jersey Department of Environmental Protection to encroach within the Special Water Resource Protection Area (SWRPA) of a C1 water pursuant to the Stormwater Management rules at N.J.A.C. 7:8-5.5(h)1ii.

(b) Within 45 days of a complete submission of subsection D-106.1 C(14)(a) above, the Borough Zoning Officer shall evaluate all material submitted and shall make a written determination, a copy of which shall be submitted to the landowner or applicant. Failure to act within the 45-day period shall not be interpreted to be an approval of the proposed boundary change.

**(15) Inspections**

(a) Lands within or adjacent to an identified riparian zone shall be inspected by the Borough Engineer or Planner when:

- i A development application is submitted.
- ii A building permit is requested.
- iii A resumption of a nonconforming use is proposed.

(b) The riparian zone may also be inspected periodically by representatives from the Borough of Millstone if excessive or potentially problematic erosion is present, other problems are discovered, or at any time when the presence of an unauthorized activity or structure is brought to the attention of municipal officials or when the downstream surface waters are indicating reduction in quality.

**(16) Fees:**

A fee of \$400 shall be payable to the Borough for review of the Riparian Zone Management Plan.

**D. Tree protection**

**(1) Legislative purpose and findings**

The purpose of this section is to regulate the removal of trees within the Borough; to protect the Borough's current tree stock; to establish the authority for tree protection within the Borough and to provide penalties for violations to this ordinance.

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The Borough of Millstone finds that the preservation, protection and planting of trees stabilizes the soil by prevention of erosion and sedimentation; plays a role in the reduction of flooding potential; aids in the removal of pollutants from the air and assists in the generation of oxygen; acts to moderate extremes of temperature and to provide shade; aids in the control of drainage and restoration of denuded soil subsequent to construction and grading; provides buffer areas that screen against noise and pollution; provides a haven for birds and other wildlife and otherwise enhances the environment; protects and increases property values; preserves and increases seclusion and privacy; conserves and enhances the Borough's physical and aesthetic appearance; and generally protects the public health, safety and general welfare.

**(2) Tree removal permit required**

No person shall remove or destroy or cause to be removed or destroyed any regulated trees on any improved or unimproved tract of land or lot within the Borough unless a permit is first

obtained for such removal, subject to the approval of the Environmental Commission, unless noted below. This permit shall be valid for three years from the date of issuance. This permit is in addition to any other approvals required pursuant to Municipal Land Use Law.

(a) No person shall remove any tree with a DBH greater than six inches measured at a height of 4 1/2 feet above the ground without a tree removal permit granted by the Environmental Commission, unless noted below.

(b) No person shall remove any tree designated as a "specimen tree", pursuant to the standards set forth herein, without a tree removal permit granted by the Planning Board, subject to the recommendations of the Environmental Commission.

(c) No person shall remove any tree designated as a "Historic tree", pursuant to the standards set forth herein, without a tree removal permit granted by the Planning Board, subject to the recommendations of the Historic Commission.

(d) Prior to the removal of any tree of a caliper of six inches or greater DBH that is located within the riparian area as defined herein, the property owner or any other person must first obtain a tree removal permit granted by the Planning Board, subject to the recommendations by the Environmental Commission, and shall satisfy the tree mitigation requirements contained herein.

### **(3) Exemptions**

The following shall be exempt from the requirements of this subsection.

(a) Trees located on the business-related portions of the properties of commercial nurseries.

(b) Pruning within the right-of-way by utility companies for maintenance of utility wires or pipelines. The utility company shall notify the Borough Administrator at least two weeks prior to the commencement of such work.

(c) Trees that are chosen to be removed by the Millstone Borough Council, or Planning Board or that are on or over a public right-of-way.

(d) Parklands or other public lands owned by the Borough of Millstone, Somerset County, of the State of New Jersey.

(e) Any projects that have received building permits or Planning Board approvals prior to the enactment of this chapter.

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(f) Tree damage caused by weather emergencies such as hurricanes, fire, windstorm, ice storm, flood, freezing temperatures or other disaster.

(g) Dead or diseased trees that are a hazard to persons or property.

### **(4) Permits by right**

No permit shall be denied under this subsection for any of the following activities:

(a) Removal of up to two (2) regulated trees on any one (1) lot in any one (1) calendar year, provided that:

i The trees to be removed are not located on any portion of the lot having a slope greater than fifteen percent.

ii The trees to be removed are not located in a wetland, a wetland transition area, or a stream buffer as defined by the NJDEP.

iii The trees are not specimen trees.

### **(5) Tree replacement plan**

(a) For each regulated tree removed in violation of this ordinance, it shall be necessary to replace the tree with a newly planted tree(s) in accordance with the following standards:

#### **Size of Tree Removed Number of Trees to be planted**

6" – 12" DBH One (1) 2" caliper tree

12" – 18" DBH Two (2) 2" caliper trees

18" – 30" DBH Three (3) 2" caliper trees

30" > DBH Four (4) 2" caliper trees

(b) Any proposed replacement tree species shall be selected from the list of approved trees

below or approved equals:  
 River Birch (*Betula nigra*)  
 Sweet Birch (*Betula lenta*)  
 \*Blackgum (*Nyssa Sylvatica*)  
 Shadblow Service Berry  
 (*Amelanchier canadensis*)  
 American Beech  
 (*Fagus sylvatica*)  
 Flowering Dogwood  
 (*Cornus florida*)  
 Eastern Larch  
 (*Larix laricina*)  
 Sweetbay Magnolia  
 (*Magnolia virginiana*)  
 Redbud (*Cercis canadensis*)  
 Sour Cherry  
 (*Prunus cerasus*)  
 Pin Cherry  
 (*Prunus pensylvanica*)  
 Sassafras  
 (*Sassafras albidum*)  
 Elm (*Ulmus americana* – disease  
 resistant species)  
 Black Cherry (*Prunus serotina*)  
 Sycamore  
 (*Platanus occidentalis*)  
 American Holly  
 (*Ilex opaca*)  
 White Pine (*Pinus strobus*)  
 \*Oak (*Quercus species*)  
 Linden (*Tilia species* – native only)  
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 Maple (*Acer species* – except for  
 Norway Maple, *Acer platanoides*  
 and other non-natives)  
 Sweetgum  
 (*Liquidambar styraciflun*)  
 Fruit Trees, such as edible apple,  
 pear, apricot, or cherry  
 (\*) Spring planting only  
 (c) Tree replacement materials shall be provided in accordance with the standards set forth in ANSI Z60.1, American Standard for Nursery Stock.  
 (d) All replacement trees shall be maintained in healthy condition for no less than two years from the date of planting.  
 (e) When the site in question cannot physically accommodate the total amount of replacement trees required by this subsection, the replacement may be accomplished by a contribution of the monetary value of non-replaced trees to a Millstone Borough Tree Escrow Fund. The amount shall be \$250.00 per tree. Prior payment of this fee shall be a condition of the issuance of the tree removal permit.  
 (f) Prior to the issuance of a tree removal permit the applicant shall pay an escrow fee equivalent to \$250.00 per required replacement tree, which shall be returned upon a



satisfactory inspection that the replacement trees has been satisfactorily installed.

**(6) Tree protection**

Whenever an application for tree removal is granted under the terms and conditions of this ordinance, the following protective measures shall be observed:

(a) No material or temporary soil deposits shall be placed within the drip line of any existing tree to be preserved.

(b) Except while engaged in tree removal, no equipment shall be operated within six feet of any tree protected by this ordinance, nor shall such equipment be operated at any time in such a manner as to break, tear, bruise, decorticate or otherwise injure any living or dormant tree. While engaged in tree removal, all remaining trees on the site that might be impacted by any tree work or any construction shall be protected with tree protection fencing that has been approved by the Borough Engineer or Borough Planner.

**(7) Time frame requirement for replacement trees**

(a) Planting of replacement trees shall be required within one year from the date of tree removal. In the event that any replacement tree shall die or be in serious decline within one year after planting, the applicant or property owner shall replace it within one year.

(b) Replacement shall not be a substitute for, but shall be in addition to, any penalty imposed for violation of the provisions of this chapter

**(8) Fees**

A fee of \$15.00 shall be payable to the Borough for a Tree Removal Permit. It is non-refundable if the permit is denied.

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**SECTION TWO.** Riparian Overlay Zone Maps, Figure 1 & 2

Riparian Overlay Maps, Figures 1 & 2, for the Borough of Millstone is hereby established as an appendix to this section. These maps shall be on file and maintained by the office of the Clerk of the Borough of Millstone. Note: It shall be the responsibility of the Applicant to verify all riparian zones on his/her survey and application.

**SECTION THREE.** Effective Date

This Ordinance shall take effect upon formal adoption by the Borough Council of the Borough of Millstone

and the subsequent filing of a certified copy thereof with the Somerset County Planning Board in accordance

with C.40:55D-16 of the NJ Municipal land Use Law.

I, Gregory J. Bonin, Borough Clerk of the Borough of Millstone, in the County of Somerset, State of New Jersey, do hereby certify the foregoing to be a true and correct copy of an ordinance introduced by the Borough Council of the Borough of Millstone during their regular meeting of April 21, 2014 and scheduled for a public hearing and second reading during their regular meeting on June 16, 2014.

  
Gregory J. Bonin, Millstone Borough Clerk