

## PROPOSED DRAFT

### SECTION 19

#### EIGHTMILE WATERSHED OVERLAY DISTRICT

##### 19.1 PURPOSE AND INTENT

The purpose of the Eightmile Watershed Overlay District is to protect and enhance the functions and values of the riparian and wetlands features of the Eightmile River Watershed, as identified in the Eightmile River Wild and Scenic River Management Study, completed in December 2005. These features are a key component of the largely intact watersheds and natural character of Lyme. In order to preserve a fully-functioning aquatic system in the Eightmile River Watershed and to prevent damage to the critical buffer area around its water bodies, the Eightmile Watershed Overlay District is hereby established.

Within the Eightmile Watershed Overlay District, it is intended that there shall be a continuous buffer consisting of a predominately forested condition that is native to the region and appropriate to the environment in which they are to be planted or retained. Protection of a vegetated buffer around watercourses is crucial for public health, safety, and welfare because the buffer regulates water flow, preserves diversity and abundance of wildlife species and habitat, protects water quality, and maintains important cultural and historical features of the Town.

Specifically, the required buffer functions to regulate water flow by promoting water infiltration and groundwater recharge, and by reducing streambed scour. The buffer preserves wildlife by providing a unique habitat such as coarse woody debris that supports a diverse species assemblage and provides an effective travel corridor for terrestrial wildlife. The buffer filters and moderates stream flow and keeps temperatures low, improving habitat for fish and other aquatic organisms. The buffer protects water quality by reducing sedimentation, and by filtering out pesticides, heavy metals, and biocontaminants; The buffer removes excess nutrients that lead to eutrophication, including nitrogen and phosphorus; It prevents erosion through bank stabilization by vegetation. Further the buffer provides a screen that protects privacy of riverfront landowners and enhances landscape diversity resulting in improved aesthetics.

##### 19.2 BOUNDARIES

The Eightmile Watershed Overlay District, here and after referred to as the District, applies to the Eightmile River and all perennial streams in the Eightmile River Watershed and the area landward and horizontal from the stream edge of those streams defined by the official Eightmile Watershed Overlay District Map, for a distance of 50 feet for smaller headwater streams and 100 feet for larger streams as marked on

said map. A stream edge is defined as the ordinary high water mark, typically identified by vegetation or soil types that are distinct from the upland area. The District area does not encompass wetlands or vernal pools, or Hamburg Cove as defined by the Eightmile River main stem from the Connecticut River to the south edge of the Joshuatown Road bridge. The foregoing shall not be deemed to exclude Falls Brook or other mapped streams that enter Hamburg Cove South of the Joshuatown Road Bridge.

### 19.3 ACTIVITIES WITHIN THE DISTRICT

19.3.1 PROHIBITED ACTIVITIES All Land-Disturbing Activity not specifically allowed as exceptions in subsection (19.3.3) below within the District established in Section 19.2 are prohibited by the Planning and Zoning Commission, except in conformance with these Regulations. Land Disturbing Activity shall include any activity which involves the alteration of the surface of the earth as it existed on the effective date of these Regulations, including but not limited to; filling, removal, or re-grading of earth; placement, construction, removal, or alteration of building or structures; establishment, removal, or alteration of uses of land; removal of vegetation or planting of invasive plants.; but not including those activities listed as exceptions in subsection 19.3.3 below. Except for the permitted activities listed below in Section 19.33,19.4 and section 19.5, the Planning and Zoning Commission shall presume that such activity will have either individual or cumulative negative impacts on the purposes of the District , unless upon presentation of clear and convincing evidence by the applicant, the Commission finds that there is no reasonably available alternative with less adverse impact on buffer functions, and that the project as proposed will have no individual or cumulative negative impact on those functions.

19.3.2 VEGETATION COVERAGE: Within the District, wherever possible, not less than 90 percent of the total surface area shall be covered with live vegetation. Diversity of vegetation and forest stages is encouraged, including a mix of trees, shrubs and herbaceous vegetation not having invasive characteristics (as defined by the most recent version of the Connecticut Invasive Plant List (as authorized by CT Public Act 03-136). The list can be obtained from the Land Use Office). A variety of plant types is more effective at capturing a wide range of pollutants than a single vegetation type. In general, where suitable vegetation existed within the District before the effective date of this amendment, vegetation is to be left in a natural state.

19.3.3 EXCEPTIONS: Permitted activities. The following activities and/or uses are permitted as-of-right within the District:

- a. Existing Activities: Existing structures or continuing activities, such as agriculture, that were legally and actively in existence before the effective date of this regulation.
- b. Granted Permits: The building of new structures, modification of existing structures, or commencement of activities that have been granted all applicable permits before the effective date of this regulation.
- c. Vegetation management: In general, vegetation is to be left in a natural state wherever it existed within the District before the effective date of this amendment. The exceptions to this requirement are as follows:
  - 1. Mowing and maintenance of lawns, gardens, meadows, fields and pastures, agricultural and wildlife plantings that are active and legally pre-existed this regulation. Periodic maintenance of such meadows containing growth for which all growth is less than 1" diameter. It is recommended that vegetation be left to grow naturally within a 25' buffer of the stream for these meadows.
  - 2. Continuation, but not expansion of, pre-existing and active farming practices.
  - 3. Removal or pruning of dead, dying, diseased, or invasive plants. Leaving some downed and standing woody debris is also preferable in order to provide a greater variety of wildlife habitat unless the spread of plant diseases is a concern.
  - 4. Firewood cutting under one cord per acre that does not alter the vegetation composition and character.
- d. Construction of one new and/or maintenance of existing unpaved footpaths associated with a residential use not more than five feet in width for the purposes of non-motorized access, excluding use for horseback riding (see section 19.4.1.f). . In order to prevent erosion and the creation of a channel of surface runoff, the path cannot create a straight line of sight from the outer boundary of the District to the watercourse. The property owner must use suitable erosion control measures to prevent erosion on slopes. Additional footpaths associated with agricultural or recreational use outside the residential area (as defined by the minimum lot size for the applicable zone) are permitted if the aforementioned conditions are followed.
- e. Emergency operations necessary for public safety or protection of property

- f. State and municipal utility improvements and operations for which activity within the Eightmile River Watershed Overlay District is unavoidable and necessary. This includes activities such as the replacement, rehabilitation, or creation of infrastructure such as sewer, water, and power lines, bridges, highway maintenance, drainage facilities. Any activity within the District may be undertaken only if there is no practical and feasible alternative for provision of these services, and only if all measures will be taken to minimize any adverse impacts to natural features and the functions of the watershed. These activities are subject to all other applicable regulations.
- g. Surveying and boundary posting for the purpose of marking boundary lines, subject to any other applicable regulation
- h. Septic system maintenance or replacement such as pumping and inspections or repair as directed by the local health official / town sanitarian. See section 19.5.1.g for expansion of systems for new structures or additions to structures.
- i. Fish and wildlife conservation activities that do not require removal of native vegetation or alteration of stream beds, banks or overlay areas.
- j. Restorative activities in areas where a diverse natural buffer does not exist, landowners may (and are encouraged to) create, enhance, or restore native vegetation appropriate to the water resource being buffered. Replanting with native trees or shrubs is encouraged if natural regeneration is not sufficient to restore vegetative cover. A list of suggested native plants for riparian buffers can be found in Appendix [X].
- k. Removal of non-native invasive species and replacement by native vegetation. Invasive plants are those listed on the most recent version of the Connecticut Invasive Plant List (as authorized by CT Public Act 03-136). A list of invasive species is maintained on the Connecticut Invasive Plants Council's "Connecticut Invasive Plants List" available at the Town Hall.

#### 19.4 ACTIVITIES REQUIRING ZONING PERMIT:

19.4.1 Activities listed below are allowed only by zoning commission permit as described in this regulation.

- a. New or expansion of existing agricultural activities excluding forestry practices (see 19.4.1.b) under the following conditions: following current best management practices for erosion control, fertilizer and pesticide application and run-off prevention; disturbance which does not exceed in size 10% of the total area of the portion of the lot that falls within the District; providing not less than 25' of

natural and/or undisturbed vegetative buffer between the agricultural activity and the stream edge. Permits for this activity must be granted by the Zoning Commission, not its agent .

- b. Conservation & wildlife activities not previously exempted and non-commercial and commercial forestry practices with the following conditions:
1. Forest harvest practices must allow for and enhance regeneration of a predominately woody state. All activities must account for restoration and enhancement of natural ecosystems and wildlife habitat;
  2. must leave full and natural tree canopy over the watercourse;
  3. Shall not remove more than 25% tree canopy within the overlay zone at any given time and shall not remove more than 25% of standing trees within any given size category within any 1-acre area; with the exception of wildlife clearings described below
  4. Must not create clearings within the District for any purpose other than Conservation Activities. Such clearings may not be wider than 80 feet in diameter.
  5. Shall not occur within a 25' buffer of the watercourse and shall maintain at a minimum 75% canopy cover for the District at all times.
  6. Shall follow DEP BMP forestry practices book [title here] for all forestry practices including stream crossings.
  7. Shall follow a written plan approved by the commission or its appointed representative;
  8. Must not have an Individual or Cumulative Negative Effect.

Commercial activities would be carried out under the supervision of a licensed professional forester, forest ecologist, or wildlife biologist in accordance with a written forest and/or wildlife management plan that addresses such issues as the location and construction of logging roads, wetland crossings, equipment use, forest regeneration and wildlife habitat. The forest management plan should provide for maintaining a healthy forest understory and succession to a natural wooded or other permitted state in the District.

- c. Clearing or maintenance of existing or abandoned woods roads for the purposes of habitat management, firewood cutting, agricultural or timber access or other access needs under the following conditions: follow current best management practices for erosion control.
- d. Building of fences outside a 25' buffer of a stream. Fences must not block or impair the movement of wildlife or water within the District.

- e. Other land disturbing activities occurring outside of a 25' buffer of the stream and resulting in less than 100 square feet of land disturbing activity in total and have no individual or cumulative negative impact on the purposes of the District.
- f. Construction of unpaved paths and trails for the purposes of horseback riding, or other non-motorized access not included in section 19.3.3.d Paths must not be more than five feet in width; In order to prevent erosion and the creation of a channel of surface runoff, the path cannot create a straight line of sight from the outer boundary of the District to the water resource. The property owner must use suitable erosion control measures to prevent erosion on slopes. See section 19.4.1.g for stream crossing guidelines.
- g. Construction of new and/or maintenance of existing stream crossings not requiring structures or land disturbing activities of any kind, for the purposes of equestrian trails, recreation and non-motorized property access or for infrequent and/or intermittent motorized access for the purposes of property maintenance or other non-commercial activities. Maintenance activities must not result in change to character or structure of the stream crossing. In general, stream crossings at grade are discouraged. Within reason, crossings must be implemented at a point in the stream with relatively narrow streambed and flat approach from the bank. Reinforcement of the bank and streamside with areas is encouraged and may be required if conditions warrant. Loose stone or other materials may not be placed in the stream without a plan from an engineer, hydrologist, or other approved expert. Stream crossings may not block natural connectivity of aquatic or terrestrial life including but not limited to fish passage and may not alter or cause to be altered the stream width or flow type. Temporary stream crossings requiring structures and or/mechanized crossing for commercial forestry practices may be permitted by the zoning commission or its designee under the following condition: temporary crossings must follow the CT DEP publication "Best Management Practices for water quality while harvesting forest products" 2007 Connecticut field guide" Chapter 5 Stream Crossings. All materials used for stream crossings must be removed and the stream bank restored after forestry operations are complete.

#### 19.4.2 Zoning Commission Permit Process

- a. Application for permits: The applicant shall include at a minimum a written description of the site including slope, current vegetation coverage, current use, and proposed activity as well as any other relevant features and such additional documentation as deemed necessary by the Zoning Enforcement Officer or the Commission.

- b. Application fee: Each application for a zoning permit shall be accompanied by a fee payable to the Town of Lyme in accordance with the schedule adopted by the Commission.
- c. Approval of Permits: Zoning permits under this section 19.4 shall be granted by the Zoning Commission or its Agent unless otherwise expressly defined.

19.4.3 Specific Standards for Zoning Permit in the District. The Commission shall issue a zoning permit only for activities as described above in section 19.4.1 which shall have no individual or cumulative negative impacts on the purposes of the District. (See Section 19.1). The commission shall instead require a special permit as described in 19.5 below if the application proposes excavation, the building of structures or the installation of any impervious surface. Also, the commission may require a special permit for any of the activities listed above in section 19.4.1 if the commission finds that the circumstances of the application (such as soil type or slope, past disturbance in the area, other recent permits or activities within the same area of the District or any other circumstance) warrant a special permit application.

#### 15.5 ACTIVITIES PERMITTED BY SPECIAL PERMIT:

19.5.1 Activities listed below are allowed only by special permit. When the special permit results in land disturbing activities, the Commission may require an expansion of the buffer in an alternate location to compensate for the loss of buffered area due to the disruption.

- a. Lot size or configuration: If the size of a lot is such that adherence to the buffer requirement prevents the placement, expansion, or alteration of a structure in compliance with all other zoning regulations, owners may request a special permit to encroach in the District. Every reasonable effort must be made to minimize impacts on the functions of the buffer and the watershed. A permit will be granted only for the minimum encroachment necessary. Where a lot is located entirely within the overlay area, the Commission may permit activities within the buffer when the applicant has demonstrated that the proposed work has been designed to minimize impacts on the Purposes of this regulation. Additional land disturbing activities for lawns or other landscaping shall not be allowed unless they are consistent with the Purposes of this regulation.
- b. Construction of accessory structures and accessory uses associated with lawfully existing single family houses where the Planning and Zoning Commission finds that alternatives outside the District do not better serve the Purposes of this regulation, that the size and impacts of the proposed structure or use have been minimized, and that the structure/use is located as far from the resource as

possible. The Commission reserves the right to deny a permit if the activity does not meet the standards outlined in section 19.5.3. As mitigation, the Commission may require that the applicant plant or maintain a naturally vegetated buffer of the maximum feasible width given the size, topography and configuration of the lot.

- c. Structures used for shoreline access (docks, stairs, etc.) may be built after granting of a special permit. The permit application must demonstrate that the construction and installation of the proposed structure does not contribute to flow alteration, channel modification, or create any other deleterious effects on the watercourse within the overlay zone.
- d. Construction of new utility lines where the proposed route is the best feasible alternative when considered against the Purposes of this regulation.
- e. Alteration of an existing activity located within an overlay area that is already altered such that the setback area cannot be provided without removal of pre-existing structures and/or pavement, provided that the proposed alteration will not increase adverse impacts on the specific portion of the overlay area and the applicant can demonstrate to the satisfaction of the Commission that there exists no feasible construction alternative.
- f. Construction of new and/or maintenance of existing stream crossings requiring structures or Land Disturbing Activities or for crossing of vehicles or equipment of any kind for the purposes of recreation, property access, agriculture or other uses with the exception of commercial forestry operations following CT DEP guidelines (see section 19.4.1.h). Permanent crossings must follow the "Massachusetts River and Stream Crossing Standards: Technical Guidelines" or such replacement standards as may be adopted by this commission. Temporary crossings must follow the CT DEP publication "Best Management Practices, or such replacement standards as may be adopted by this commission, for water quality while harvesting forest products" 2007 Connecticut field guide Chapter 5 Stream Crossings. The commission may use its discretion as to the requirement of "General" versus "Optimum" standards as defined by the Massachusetts River and Stream Crossing Standards document using the application guidelines within said document as a general guide. Stream crossings may not block natural connectivity of aquatic or terrestrial life including but not limited to fish passage.
- g. Septic system expansion or replacement as a result of new structures or additions to existing structures.

#### 19.5.2 Special Permit Process

- a. Application for permits: The applicant shall submit a Site Plan, as defined in Section 2.54 of these Zoning Regulations, and provide documentation demonstrating the need for a special permit, the efforts made to minimize disturbance to the functions of the buffer and water resources, or other documentation that may be reasonably requested by the Zoning Enforcement Officer or the Commission. Applicants should look at the criteria for consideration of waiver of Site Plan requirements (Section 11.2.3) if they believe the impacts will be insignificant when measured by the standards of this regulation. Such waiver shall only be granted if the Commission determines the impacts are insignificant when measured by the standards of this regulation.
- b. Application fee: Each application for a special permit to be considered by the Zoning Enforcement Officer or the Commission shall be accompanied by a fee payable to the Town of Lyme in accordance with the schedule adopted by the Commission.

19.5.3 Specific Standards for Special Permit in the District: The Commission shall consider the following standards when reviewing an application for a Special Permit within the District:

- a. that the permitted activity is compatible with the purposes of the District,
- b. that the activity shall have no Individual Or Cumulative Negative Effect on the purpose of the overlay district (See Section 19.1), the Plan of Conservation & Development, and the health, safety and welfare of the public.
- c. Whether strict application of the Watershed Overlay District regulations would deny the applicant reasonable use of the property, or whether the regulations would render the property unusable or unsuitable for development.
- d. Whether there is a feasibly or prudent alternative through plan modification that will lessen the impacts and protect the buffer as intended in these regulations. That the relief granted is the minimum necessary and does not conflict with other municipal, state, or federal regulations.

19.5.4 Special Approval for Conservation Purposes. The Commission may waive the requirements of Section 19.5.1 a. and b. within the Eightmile River Watershed Overlay District where an application meets the requirements set forth below and where, in the judgment of the Commission in looking at the context of present and potential development of a property as a whole (including the application before the Commission), the overall protection afforded to the Eightmile River watershed and other important conservation resources significantly exceeds protections provided by strict application of Section 19.5.

- a. Standards for waiver of the requirements of Section 19.5.1 a. and b.
- i. The minimum contiguous acreage required for an applicant to utilize this subsection 19.5.4 shall be fifty (50) acres. The acreage shall be considered contiguous even if it is separated by a public road.
  - ii. The minimum area dedicated for Open Space purposes shall equal or exceed sixty six percent (66%) of the entire parcel in question.
  - iii. There shall be at least three hundred (300) feet of undisturbed area between Land Disturbing Activities within the Eightmile River Overlay District.
  - iv. The Land Disturbing Activity within the Eightmile River Overlay District shall not cause any measurable increase in storm water runoff into the Eightmile River or a perennial stream within the District.
  - v. Additional Land Disturbing Activities for lawns or other landscaping associated with the structures or improvements shall be limited to the minimum area reasonably necessary for the approved structures and improvements and the remaining area within the Eightmile River Overlay District shall remain in a natural state consistent with the Purpose of this Section 19.
  - vi. The area dedicated for Open Space and the subdivision design as a whole provides substantial additional protection of and benefit to:
    - (A) the ecological integrity of watersheds, wetlands, and watercourses in the Eightmile River watershed, including without limitation (i) – (iv) above, and
    - (B) one or more other important natural resources outside of the Eightmile River Overlay District, such as agricultural and forest resources, prominent geological features, scenic views from public spaces, the ecological integrity of other watersheds, wetlands and watercourses, and wildlife habitat.
  - vii. The area dedicated for Open Space purposes provides a significant ecological connection between or buffer to existing protected open space properties or property identified for Open Space protection in the future in the current Town Plan of Conservation and Development.

b. Notwithstanding the foregoing, Land Disturbing Activities approved under this Section 19.5.4 shall not:

- i. encroach on any slope above the Eightmile River or any perennial streams in the Eightmile River Watershed defined by the official Eightmile Watershed Overlay District Map in excess of 5%; and
- ii. encroach within fifty (50) feet of the Eightmile River or any perennial streams in the Eightmile River Watershed defined by the official Eightmile Watershed Overlay District Map.

c. All other related Land Disturbing Activities shall conform to the standards and requirements of Section 19.

For the purposes of this Section 19.5.4 “Open Space” means: (i) land protected in a relatively natural state by conveyance of land or grant of a perpetual Conservation Restriction to a land trust or other conservation organization qualified as a charitable organization under §501(c)(3) of the Internal Revenue Code, or governmental entity, or (ii) land conveyed outright to one of the foregoing entities for conservation purposes. Land voluntarily dedicated as perpetually protected open space by gift or bargain sale of the applicant or its family prior to the filing of the application may be counted toward the 66% minimum, provided that no portion of the proposed open space has been previously counted as open space for another development approval.

## 19.6 OVERLAPPING REGULATIONS

The Eightmile Watershed Overlay District requirements are in addition to the requirements of other overlapping zoning districts, and of federal, state, or municipally regulated areas. In all cases the more restrictive regulation will take precedence. Compliance with Section 19 does not replace any obligation of the applicant to have a determination made by the Lyme Inland Wetlands and Watercourses Commission or any other regulatory agency as to whether additional review and permits are necessary.

## 19.7 Severability

Should any section, subsection, or provision of this amendment be declared by a court of competent jurisdiction to be invalid, such decision shall not affect the validity of the amendment in whole or any part thereof other than the part so declared to be invalid.

CHANGES TO OTHER SECTIONS OF THE LYME ZONING REGULATIONS TO  
ACCOMMODATE THE ADDITION OF SECTION 19 – EIGHTMILE WATERSHED  
OVERLAY DISTRICT

(Revised) 2.16 DISTURBED AREA: An area where the ground cover is destroyed or removed, leaving the land subject to accelerated erosion or providing a host site for invasive species. caused by a LAND DISTURBING ACTIVITY (sec 2.16)

2.71 LAND-DISTURBING ACTIVITY: Any use or activity that causes significant changes in vegetation or soil structure. These activities may include, but are not limited to any activity which involves the alteration of the surface of the earth as it existed on the effective date of these Regulations, including but not limited to; filling, removal, or re-grading of earth; placement, construction, removal, or alteration of building or structures; establishment, removal, or alteration of uses of land; removal of vegetation or planting of invasive plants; but not including those activities listed as exceptions in subsection 19.3.3 b

HERBACEOUS: Plants having little or no woody tissue. Leaves and stems usually die back to ground level at the end of the growing season.

INDIVIDUAL NEGATIVE EFFECT - Any effect that when taken into consideration on an individual site basis within the District would have an adverse effect on the Purposes of the District.

CUMULATIVE NEGATIVE EFFECT - Any effect that when considered together with any likely current or future regulated activity within the entire District would have a significant adverse effect on the Purposes of the District.

CONSERVATION ACTIVITIES: Vegetative management or minor land disturbing activities intended benefit native wildlife, ecological integrity, or biodiversity that do not conflict with the Purposes of the Eightmile River Overlay District. Activities may be for the purposes of native wildlife habitat management and augmentation, removal of species with invasive characteristics, restoration, augmentation or regeneration of native plant species. Activities performed as a Conservation Activity must not leave any portion of the district in an un-vegetated state.

**INVASIVE CHARACTERISTICS** means when used in the context of plants, grasses, forbs, shrubs and trees means: (i) non native or introduced species of flora exhibiting aggressive growth characteristics that threaten or exclude native species of flora or fauna, and (ii) native species of flora exhibiting aggressive growth characteristics that threaten or limit natural biological diversity or important natural communities on or abutting the Protected Property.

**NATIVE** plants, trees, shrubs, or plants means plants, trees, or shrubs indigenous to the southern New England and northern mid-Atlantic regions.

## Section 11.5 Contents of a Site Plan Application

11.5.2 b.5 Add the following phrase “.....Location and design of all required buffer strips and screening, including riparian buffers, ....