Town of Shutesbury Massachusetts

Wetlands Protection Bylaw Regulations

Most Recent Amended Bylaw Effective Date: May 30, 2024
Bylaw Regulations Amended by Conservation Commission on INSERT DATE

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ARTICLE I: INTRODUCTION

1. Statement of Jurisdiction and Protected Values

1.1 Authority: These Regulations shall be effective on and after INSERT ADOPTION DATE and shall remain until modified or amended by the Shutesbury Conservation Commission, hereafter "the Commission." They are enacted by the Commission under authority granted by Section 9 of the Shutesbury General Wetlands Protection Bylaw, hereafter "the Bylaw." That Bylaw is adopted under the Home Rule Amendment of the Massachusetts Constitution and the Home Rule statutes, independent of the Massachusetts General Laws (MGL) Wetlands Protection Act Chapter 131, § 40 (hereafter, the "WPA"), and its Regulations hereunder.

1.2. These Regulations serve to implement the Bylaw and the protection of the Bylaw's Resource Area Values as listed in Section 1 of the Bylaw by providing standard definitions, uniform procedures, design specifications, and Performance Standards by which the Commission may carry out its responsibilities under the Bylaw.

1.3. These Regulations further aim to provide clear guidance to Applicants regarding the standards that the Commission has determined are necessary to protect Wetland Resource Areas based on Shutesbury's topography and hydrology, the special value these Resource Areas have for Shutesbury and neighboring communities, and the Commission's past experience with wetlands protection.

1.4. Resource Area Values protected by the Bylaw include: public or private water supply and quality, groundwater supply and quality, surface water supply and quality, flood control and storage, erosion and sedimentation control, storm damage prevention, prevention and control of pollution, protection of biodiversity, mitigation of adverse effects from climate change, carbon/greenhouse gas storage and sequestration (i.e. carbon/greenhouse gas mitigation), localized cooling, protection of fisheries, plant and wildlife habitat, recreation, agriculture, aquaculture, and rare species habitat including rare plant and animal species.

1.5. Areas subject to protection under Section 2 of the Bylaw and these Regulations include the following Resource Areas (also "Resource Areas"):

1.5.1. any Freshwater Wetland, marsh, wet meadow, Vernal Pool, spring, bog, swamp, brook, creek, river, stream (including intermittent and perennial), pond, lake, or reservoir;

1.5.2. any bank to the waterways and water bodies listed in 1.5.1 above;

1.5.3. any land under the waterways and water bodies listed in 1.5.1 above;

1.5.4. any adjoining land extending out one hundred (100) feet of any Resource Area listed in 1.6.1 through 1.6.3 above, hereafter referred to as the Adjacent Upland Resource Area (AURA);

1.5.5. any adjoining land extending out two hundred (200) feet of any perennial stream, creek, brook, or river, hereafter referred to as Riverfront Area;

1.5.6. any land subject to inundation, storm flowage, or flooding by groundwater, surface water, whether bordering or isolated.

The aforementioned Resource Areas shall be protected under the Bylaw and these Regulations, whether or not they border surface waters.

1.7. Activities subject to regulation under the Bylaw and provisions of these Regulations include:

1.7.1. Any proposed or undertaken activity--that constitutes removing, filling, dredging, discharging into, building upon, degrading, or otherwise altering any area specified in Subsection 1.6 above--is subject to regulation under the Bylaw and requires the filing of an application for a permit.

1.7.2. If any person wishes to have the Commission determine whether an activity may be subject to regulation under the Bylaw, they shall submit a Request for Determination of Applicability (RDA) pursuant to Article V of these Regulations.

2. General Presumptions and Performance Standards

2.1. **Climate Change:** When making a decision to approve or deny a permit, the Commission shall consider whether proposed activities are likely to have a significant individual or cumulative adverse effect on the Values of the Bylaw, including the Values pertaining to climate resilience and greenhouse gas mitigation (such as local temperature regulation, biodiversity, and carbon sequestration and storage), under climate conditions predicted for the lifespan of the project. The Commission's decision to approve or deny a permit shall consider the Applicant's avoidance, minimization and/or mitigation measures to address climate change resilience and adaptation. In reviewing AURA and other Resource Area impacts, the Commission shall consider loss of biodiversity, loss of climate change resilience and climate change adaptation in evaluation of adverse effects from development.

2.2. **No Significant or Cumulative Effects:** Activities undertaken in a Resource Area, including the AURA or Riverfront Area, have a high likelihood of unacceptable significant or cumulative effects upon the Resource Area, either immediately, as a consequence of construction, or over time, as a consequence of daily operation or other activities. An Applicant must demonstrate that any work, including proposed mitigation measures, shall have no unacceptable significant or cumulative effects on the Resource Area Values. When determining whether an unacceptable significant or cumulative effect is likely to occur or has occurred, the Commission shall include in its review all potential cumulative effects on Resource Areas and all work conducted within the AURA and Riverfront Area from the time of adoption of the applicable Regulation through the proposed project time frame.

2.3. **General Avoidance, Minimization, and Mitigation Requirements:** To prevent Resource Area loss, the Commission shall require applicants to avoid alteration wherever feasible; to minimize alteration; and, where alteration is unavoidable and has been minimized, to provide full mitigation. The Commission may authorize or require replication of wetlands as a form of mitigation, but only with specific plans, professional design, proper safeguards, adequate security, and professional monitoring and reporting to assure success, because of the high likelihood of failure of replication. Where impacts are unavoidable, the Commission shall consider the Applicant’s proposed avoidance, minimization, and mitigation measures. The Commission shall presume that the AURA, Riverfront Area, and other Resource Areas discussed in this section should be left undisturbed and natural to the greatest extent possible.

2.4. **Setbacks and No-Disturb Areas:** The Commission may require design specifications, performance standards, and other measures and safeguards, including setbacks, no-disturb areas, no-build areas, and other work limits for protection of such lands, including without limitation

strips of continuous, undisturbed vegetative cover, unless the Applicant convinces the Commission with credible evidence that the proposed activity will not harm the Values protected by the Bylaw. The Commission shall presume that an undisturbed and vegetated inner fifty (50) feet of the AURA and Riverfront Area are necessary to protect the Values of the Bylaw. For Vernal Pools, a minimum of a 100-foot undisturbed AURA shall be considered necessary to protect the Values.

2.5 **Pesticides, Fertilizers, and Herbicides:** The Commission prohibits the use of pesticides, inorganic fertilizers, fungicides, and herbicides within Resource Areas including the AURA unless permitted by the Commission and applied by a licensed applicator.

2.6 See Article IV for additional Resource Area Performance Standards.

3. Exemptions and Exceptions

3.1. Public Utilities: The permits and applications required by this Bylaw shall not be required for maintaining, repairing, or replacing an existing and lawfully located structure or facility used in the service of the public to provide electric, gas, water, stormwater drainage, telephone, telegraph, and other telecommunication services, provided that all of the following conditions are met:

3.1.1 the structure or facility is not substantially changed or enlarged;

3.1.2 written notice has been given to the Commission prior to the commencement of the work; and

3.1.3 the work conforms to any relevant Performance Standards and Design Specifications in these Regulations, including appropriate erosion and sedimentation controls.

3.2. Agriculture: The applications and permits required by the Bylaw shall not be required for work performed for routine maintenance or improvement of land, which is lawfully in agricultural or aquacultural uses, as defined by the WPA Regulations found at 310 CMR 10.04, at the time the work takes place. The Commission may require the landowner to submit documentation establishing a qualifying agricultural use.

3.3. Emergency Projects: The applications and permits required by the Bylaw shall not be required for emergency projects necessary for the protection of the health and safety of the public, provided that all conditions and requirements of Emergency Projects in Article V below are satisfied.

3.4. The provisions of this Bylaw shall not apply to any mosquito control work done under the provisions of MGL Chapter 40 §5 or MGL Chapter 252.

3.5. Minor Activities within the AURA: Minor activities, as described in 310 CMR 10.02(2)(b)2.a. through d. and 310 CMR 10.02(2)(b)2.f. through q., within the AURA and outside any other Resource Areas are hereby adopted with the provision that setback requirements contained herein must include all Freshwater Wetlands that are jurisdictional under the Bylaw, and not just Bordering Vegetated Wetlands. Activities that meet these definitional requirements shall not be otherwise subject to regulation under the Bylaw and these Regulations provided that the work is performed: solely within the AURA, as prescribed in 310 CMR 10.02(2)(b)2.a. through d. and f. through q., in a manner so as to reduce the potential for any unacceptable significant or cumulative effects on the Resource Areas during construction, and with post-construction measures implemented to stabilize any disturbed areas. Activities that fall

within the definition of 310 CMR 10.02(2)(b)2.e. are not exempt from regulation under the Bylaw and these Regulations.

3.6. Other than stated in this Subsection, no other exceptions and exemptions provided in the WPA and its Regulations shall apply under the Bylaw.

4. Reservation

These Regulations should not be construed to limit the authority of the Commission under the Bylaw. The Commission reserves the right to act in a manner consistent with the Bylaw upon any matter within its jurisdiction.

5. Incorporation

All of the procedures and requirements set forth in the WPA Regulations of 310 CMR 10.00 et. seq. are hereby incorporated and made part of these Bylaw Regulations except where they differ from or depart from these Bylaw Regulations. Where the Bylaw Regulations differ from or depart from the WPA Regulations, the Bylaw Regulations shall take precedence over the WPA Regulations. The Applicant shall first address the requirements of the WPA Regulations at 310 CMR 10.00 et. Seq. and then supplement them with the requirements of the Bylaw Regulations.

ARTICLE II: DEFINITIONS

Definitions of selected words, terms, and phrases used in these Regulations are provided below. Definitions of Resource Areas are also found in subsequent sections for each Resource Area. Capitalized terms used in these Regulations, but not otherwise defined in these Regulations, shall have the meanings set forth in the WPA Regulations at 310 CMR 10.00 et Seq. All definitions in these Regulations are presumed to be the same as WPA and its Regulations unless otherwise noted below.

Abutter: the owner of any lot that is adjacent to (sharing property lines with) the project locus; the owner of any lot directly opposite on any public or private street or way; the owner of any lot within one hundred (100) feet of the property line where the activity is proposed; the owner of any of the above who may be in another municipality or across a body of water; the owner of any of the above whose mailing addresses are shown on the most recent tax assessors' records. When work is in land under water bodies and waterways or on a tract of land greater than fifty (50) acres, then written notification must be given only to abutters within one hundred (100) feet of the project site.

Act: Wetlands Protection Act (WPA), MGL Chapter 131, § 40

Activity: any form of draining, dumping, dredging, damming, discharging, excavating, filling, or grading; the erection, reconstruction, or expansion of any building or structure; the driving of pilings or erection of walls; the construction or improvement of roads and other ways; the changing of site hydrology or runoff characteristics; the intercepting, withdrawing, or diverting of groundwater or surface water; the installation of drainage, sewage, and water systems; the discharging of pollutants; the destruction or significant alteration of plant life; the cutting of 20% or more of the growth or limbs of trees or vegetation, or any other alteration of the physical characteristics of land, or of the physical, biological, or chemical characteristics of water.

Adaptation: measures designed or intended to protect Resource Areas from the adverse effects of climate change and to protect the ability of Resource Areas to mitigate the adverse effects of climate change through providing the Resource Area Values protected by this Bylaw.

Adjacent Upland Resource Area (AURA): the land one hundred (100) feet horizontally laterally from the boundary of any Freshwater Wetland, isolated wetland, marsh, wet meadow, Vernal Pool, spring, bank, bog, swamp, stream (intermittent or perennial), brook, creek, river, lake, pond, reservoir or land under waterways and water bodies protected under §2 of the Bylaw.

Adverse Effect: a greater-than-negligible, unacceptable effect on the Resource Area, one of its characteristics, or on factors that diminish the Resource Area's ability to protect the Values. "Negligible effect" shall mean an effect small enough to be disregarded.

Agent: any Conservation Commissioner or municipal staff who is appointed agent by a majority vote of the Conservation Commission at a regularly scheduled meeting of the Conservation Commission, and if applicable, upon written approval of the Shutesbury Select Board. (M.G.L. Chapter 40 § 8C).

Agriculture: defined as in 310 CMR 10.04.

Alter: a change to any Resource Area subject to protection under the Bylaw including, without limitation, the following actions when undertaken upon, within, or affecting any of the Areas Subject to Protection under the Bylaw and listed in Articles I and IV of these Regulations:

1. Removal, excavation, or dredging of soil, sand, gravel, or aggregate materials of any kind;

2. Changing the pre-existing drainage characteristics, flushing characteristics, salinity distribution, sedimentation patterns, flow patterns, or flood retention characteristics;

3. Drainage, withdrawal, lowering, or other disturbance of water level or water table;

4. Dumping, discharging, or filling with any material that may degrade water quality;

5. Placing of fill, or removal of material, that would alter elevation;

6. Driving of piles or erection or repair of buildings or structures of any kind;

7. Placing of obstructions or objects in water, whether or not they interfere with flow;

8. Destruction of plant life, including but not limited to cutting of trees;

9. Placing of leaves, grass clippings, or brush within a Resource Area;

10. Application of pesticides and herbicides;

11. Changing temperature, biochemical oxygen demand, or other physical or chemical characteristics of any surface water or groundwater;

12. Any activities, changes, or work, which may cause or tend to contribute to the pollution of any body of water or groundwater;

13. Any activities, changes, or work that adversely affect groundwater and drinking water supply and quality;

14. Decreasing the capacity of Resource Areas to respond to the adverse effects of climate change, including but not limited to, changes in the timing, intensity, and amount of

precipitation; temperatures; and intensity and/or frequency of storms, extreme weather events, or droughts;

15. Incremental activities which, or may have, a cumulative adverse effect on Resource Areas protected by this Bylaw and its Regulations.

Applicant: a person filing a Request for Determination of Applicability (RDA), Abbreviated Notice of Resource Area Delineation (ANRAD), Notice of Intent (NOI), Emergency Certification (EC), Small Project Permit (SPP), or other request for permit with the Commission or on whose behalf such application is filed.

Application: Notice of Intent (NOI), Request for Determination of Applicability (RDA), Abbreviated Notice of Resource Area Delineation (ANRAD), Emergency Certification Requests, Certificate of Compliance (COC) Request, Amended OOC Request, or Extension Permit Request, and Small Project Permit Application (SPP), or other request for permit.

Aquaculture: Land being used for aquaculture means land presently and primarily used in the growing of aquatic organisms under controlled conditions, including one (1) or more of the following uses: raising, breeding, or producing a specified type of aquatic animal or vegetable life.

Arborist: a professional certified in the practice of arboriculture who focuses on the health and safety of individual trees or wooded landscapes rather than one who manages forests or the harvesting of wood.

Area Subject to Protection under the Bylaw: synonymous with Resource Areas in §2 of the Bylaw.

Bank: any land area that normally abuts and confines a water body, the lower boundary being the mean annual low-flow level, and the upper boundary being the first observable break in the slope or the mean annual flood level, whichever is lower.

Best Management Practices (BMPs): the most up-to-date technology or the best designs, practices, procedures, or other management or engineering practices that have been developed and that are commercially available.

Bogs: as defined in the WPA (MGL Chapter 131, § 40(6)), except where otherwise specified under Article IV of these Regulations.

Bordering: means touching. A Resource Area is bordering on a water body protected by the Bylaw, and their respective Regulations if some portion of the Resource Area is touching another Resource Area, some portion of which is, in turn, touching the water body.

Bordering Vegetated Wetland (BVW): as defined in the WPA and its Regulations (310 CMR 10.55(2)).

Boundary: the boundary of a Resource Area under this Bylaw. A description of the boundary of each Resource Area is found in the appropriate subjection of Article IV of these Regulations.

Buffer Zone: also referred to as the Adjacent Upland Resource Area (AURA); the land area extending one hundred (100) feet horizontally outward from the boundary of all other Resource Areas listed in Sections 2A through 2C of the Bylaw. The 100-foot Buffer Zone or AURA is a Protected Resource Area under this Bylaw and its Regulations.

Bylaw: the Town of Shutesbury General Wetlands Protection Bylaw.

Certificate of Compliance (COC): a written determination by the Commission as to whether work under a permit or a portion thereof has been completed in accordance with an OOC or permit issued under the Bylaw governing said work.

Commission or Conservation Commission: the Town of Shutesbury, Massachusetts Conservation Commission as lawfully appointed pursuant to MGL Chapter 40, § 8C.

Commissioner: a Commissioner of the Shutesbury Conservation Commission.

Competent Source(s): an individual with at least a master's degree in wetland science or ecological science from an accredited college or university or another competent wetland professional, with at least two years, or the equivalent, of full-time training and experience, or their equivalent, in wetland plant and soil identification and delineation. When warranted under the circumstances, the Commission may accept any of the following as Competent Sources: Registered Professional Engineers, Architects, Landscape Architects, Certified Arborists, Surveyors, Registered Sanitarians, Licensed Site Professionals, Hydrologists, and Hydrogeologists.

Conditions: those requirements set forth in a written permit, Order of Conditions (OOC), Determination, Order of Resource Area Delineation, Emergency Certification, Enforcement Order, Small Project Permit (SPP), administrative order, Certificate of Compliance, or other Order issued by the Commission for the purpose of permitting, regulating, or prohibiting any activity that removes fills, dredges, discharges into, builds upon, degrades, or alters an Area Subject to Protection under the Bylaw.

Consultant(s): including, but are not limited to, architects, wetland scientists, biologists and other environmental experts, chemists, engineers, geologists, landscape architects, lawyers, sanitarians, and surveyors.

Cumulative Effect: an effect that is significant when considered in combination with other activities that have occurred, that are occurring simultaneously, or that are reasonably foreseeable, whether such other activities are contemplated as a separate phase of the same project or arise from unrelated but reasonably foreseeable future projects. Future activities within a site, district or institutional area identified within an annual budget, capital spending plan, Master Plan, Planned Development Agreement or equivalent document approved by the Town of Shutesbury, or any other government agency are specifically considered to be reasonably foreseeable future projects for the purposes of this Bylaw. Future effects of inland flooding or other future climate change effects are included among cumulative effects.

Date of Issuance: the date a Permit, Order, Determination, or Certification is mailed via U.S. Mail or electronically via email), as evidenced by a postmark, the date it is hand-delivered, or the date of the confirmed email delivery.

Date of Receipt: the delivery date to an office, home, or usual place of business by mail, hand delivery, or date of the confirmed email delivery receipt.

Determination of Applicability (DOA): a written finding by the Commission as to whether a site or the work proposed thereon is subject to the jurisdiction of the Bylaw and its Regulations.

Determination of Significance: a written finding by the Commission that the area on which the proposed work is to be done or which the proposed work will alter is significant to one or more of the Resource Area Values identified in and protected by the Bylaw and its Regulations.

Diameter at Breast Height (DBH): the diameter (in inches) of the trunk of a tree (or, for multiple trunk trees, the aggregate diameters of the multiple trunks) measured 4 ½ feet from the existing grade at the base of the tree.

Discharge: a release of water - stormwater, sewage, industrial waste, etc. - which has been confined, concentrated, or directed.

Dredge: to deepen, widen, or excavate, either temporarily or permanently.

Enforcement Order: a written notice issued by the Commission requiring the cessation of all activities that violate the Bylaw and its Regulations.

Erosion and Sedimentation Control: the use of physical barriers to prevent the detachment or movement of soil or rock fragments by water, wind, ice, or gravity. Erosion Control Barriers include, but are not limited to, straw wattles, erosion mats, silt sacks, filter fabric, staked straw bales, coffer dams, sandbags, and turbidity curtains. No hay is permitted in erosion and sedimentation controls due to risk of invasive species spread.

Extreme Weather Event: the weather at the extremes of the historical distribution lying in the outermost 10% of a locale's history, including but not necessarily limited to droughts, high winds and microbursts, blizzards and ice storms, excessive precipitation, wildfires, tornadoes, and severe thunderstorms or hurricanes.

Fill: to deposit or discharge any material so as to raise an elevation of a given Resource Area, either temporarily or permanently.

First: When referring to distances within the 100-foot Adjacent Upland Resource Area, "first" shall refer to the innermost area closest to the Resource Area (i.e., 0-50 feet from the Resource Area boundary). "First" is also synonymous with "inner" in this context.

Flood Control: the prevention or reduction of flooding and flood damage, both as currently expected to occur and as projected based on the best available data regarding the impacts of climate change.

Freshwater Wetlands: wet meadows, marshes, swamps, bogs, hillside seeps, springs, and Vernal Pools. These include Bordering Vegetated Wetlands (BVWs) (i.e., bordering on freshwater bodies such as on creeks, rivers, streams, ponds, reservoirs, and lakes), and Isolated Vegetated Wetlands (IVWs) which do not border on any permanent water body. Freshwater vegetated wetlands are areas where soils are saturated and/or inundated such that they support wetland indicator plants. The groundwater and surface water hydrological regime, soils, and the vegetational community which occur in each type of Freshwater Wetlands, including both Bordering and Isolated Vegetated Wetlands, are defined under this Bylaw based on the WPA (MGL Chapter 131 §40) and its Regulations (310 CMR 10.00). See also definitions for Springs, Hillside Seeps, BVWs, IVWs, and Vernal Pools.

Ground Disturbance: any work, operation, or activity that results in a disturbance of the earth, including excavating, digging, trenching, cultivating, drilling, tunneling, backfilling, blasting, topsoil stripping, land leveling, peat removing, quarrying, clearing, and grading.

Groundwater: all subsurface water contained in natural geologic formations or artificial fill, including soil water in the zone of aeration. Activities within the AURA, Riverfront Area, or other Resource Areas shall not significantly alter naturally occurring groundwater's existing quality or elevation.

Growing Season: the portion of the year when soil temperatures are above 41°F, generally from April through October in Shutesbury, but subject to annual variation.

Heavy Equipment: self-propelled, self-powered, or pull-type equipment and machinery primarily employed for construction, industrial, and forestry uses (e.g., water tender, backhoe, mini-excavator, and tractor).

Hydric Soil: A soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part and includes soils that developed under sufficiently wet conditions to support the growth and regeneration of hydrophytic vegetation. Also included are soils that are sufficiently wet because of artificial measures and soils in which the hydrology has been artificially modified if the soil, in an unaltered state, was hydric.

For these Regulations, the "upper part" is defined as 6 inches for somewhat poorly drained soils. Poorly and very poorly drained soils are presumed to be hydric unless artificially drained or otherwise altered. In such special cases, the "upper part" shall be defined as within 12 inches of the soil surface. Oxidized rhizospheres and mottling within the "upper part" of the soil, as defined above, shall be considered evidence of anaerobic conditions, and the soil shall be considered hydric. Also, for the Regulations, wetland plant communities that are dominated by plants rated as Facultative Wetland (FACW) by the Fish and Wildlife Service and which contain Obligate wetland plants shall be presumed to be located in Hydric Soils.

The drainage classification of a soil shall be determined as designated in the "Massachusetts Handbook for Delineation of Bordering Vegetated Wetlands," produced by the Massachusetts Department of Environmental Protection (MassDEP), Second Edition (September 2022, or its successor). However, The Commission recognizes that some Hydric Soils do not meet these published guidelines, so it reserves the right to determine a soil's drainage classification case-by-case. These unusual soils include but are not limited to soils developed in red parent materials, recently deposited sediments, and soils formed in oxygenated groundwater seeps.

Imminent Risk to Public Health and Safety: environmental conditions that constitute an imminent risk to public health or safety as confirmed in writing and submitted to the Commission by the Shutesbury Tree Warden, Fire Department Representative, Board of Health, Public Safety Officer, or other public agency.

Impacts of Climate Change: impacts including but not necessarily limited to (if) extreme temperatures (ii) timing, frequency, intensity, and amount of precipitation; (iii) storm surges and rising water levels, (iv) increased intensity and frequency of storm events, (v) frequency, intensity, and duration of droughts, and (vi) impacts caused by or resulting from an Extreme Weather Event.

Impervious Surface: surfaces such as compacted soils, sidewalks, roadways, driveways, and rooftops that are resistant to penetration by water or plant roots and do not allow stormwater infiltration into the soils as stormwater entered under natural conditions before development.

In: within an area subject to protection under the Bylaw, including in, through, under, over, cantilevered over, and shading; does not require physical touching of a Resource Area. Concerning structures, "In" is measured from the drip line of the roof or foundation or footing, whichever is closer to the Resource Area.

Interests of the WPA: the purposes of the WPA as set forth in 310 CMR 10.01(2).

Intermittent Stream: a body of running water, including brooks and creeks, which moves in a definite channel in the ground due to a hydraulic gradient, but does not flow throughout the year. During dry periods, Intermittent Streams may not have flowing water. Runoff from precipitation is a supplemental source of water for Intermittent Stream flow. Upstream of the first point of perennial flow, a stream is normally intermittent. Intermittent Streams are not rivers as defined in 310 CMR 10.58 as amended because surface water does not flow within them throughout the year. At times, a portion of an Intermittent Stream may become subsurface or subterranean. When the riverbed of an Intermittent Stream loses its connection with the earth's surface before reemerging into the downgradient surface channel, the maximum protected distance between the stream inlet and the outlet shall be two hundred (200) feet. See Article IV Subsection 7 below for additional defining characteristics of Intermittent Streams.

Isolated Vegetated Wetland (IVW): a Freshwater Wetland, of at least five hundred (500) square feet in area, that meets all standards for BVWs, except for the "bordering" requirement. Delineation of IVWs shall follow the same methodology as BVWs described above, except for the establishment of the bordering requirement. Vernal Pools, defined below, are not defined by the vegetational community and 500 square feet area requirements.

Lake: any body of fresh water with a surface area of 10 acres or more, including great ponds.

Lot: an area of land in one ownership, with definite boundaries. When an area of land is comprised of more than one lot, the lots share a common boundary and are owned or controlled by the same entity or individual(s), the Commission may consider the lots as a single lot.

Low Impact Development (LID): as defined in 310 CMR 10.04; a Best Management Practice designed for controlling stormwater runoff on a property with systems modeled after natural hydrologic features, including but not limited to: rain gardens, bioretention ponds, and vegetated drainage swales.

Mean Annual High Water Line (MAHWL): the MAHWL is the line where the arithmetic mean of the high water heights observed over a specific 19-year metonic cycle (the National Tidal Datum Epoch) meets the shore and can be determined using hydrographic survey data of the National Ocean Survey of the U.S. Department of Commerce. In most cases, it is the line that is apparent from visible markings or changes in the character of soils or vegetation due to the prolonged presence of water and that distinguishes between predominantly aquatic and predominantly terrestrial land. Field indicators of bankfull conditions shall be used to determine the MAHWL. Bankfull indicators include but are not limited to changes in slope, changes in vegetation, stain lines, top of pointbars, changes in bank materials, or bank undercuts. In most rivers, the first noticeable break in slope is coincident with bankfull conditions and the MAHWL. In some river reaches, the MAHWL is represented by bankfull field indicators that occur above the first observable break in slope, or if no observable break in slope exists, by other bankfull field indicators. These river reaches are characterized by at least two of the following features: low gradient, meanders, oxbows, histosols, a low-flow channel, or poorly-defined or nonexistent

banks. The MAHWL sets the boundary of a Vernal Pool and the inner boundary of the Riverfront Area.

Mitigation: reduce or attenuate an unacceptable significant or cumulative effect by repairing, rehabilitating, or restoring the affected Resource Area or compensating for the unacceptable effect by enhancing or providing replacement Resource Areas on site or elsewhere.

Native Plants: plants recognized as native to Franklin, Hampshire, Hampden, or Berkshire Counties according to the most recent revision of *The Vascular Plants of Massachusetts: A County Checklist, First Revision (2011)* by Melissa Dow Celina, Bryan Connolly, Bruce A. Sorrie and Paul Somers (Natural Heritage & Endangered Species Program) or *Vascular Flora of Franklin County, Massachusetts (2020)* by Robert I. Bertin, Matthew G. Hickler, Karen B. Searcy, Glenn Motzkin, and Peter P. Grima (New England Botanical Club), or similar publications as the Commission may designate from time to time. Cultivars are not considered native plants.

NOAA 14: Point precipitation frequency estimate data compiled by the National Oceanic and Atmospheric Administration's ("NOAA") National Weather Service (NOAA Atlas, Volume 10), used in evaluation/planning for stormwater infrastructure and management. If NOAA 14 is updated, the most recent published edition shall apply.

Notice of Intent (NOI): the written application for permit filed by any person(s) intending to remove, fill, dredge, or alter an Area Subject to Protection under the Bylaw. For purposes of the Bylaw, unless alternative forms are created by the Commission, such notice may use the Massachusetts Department of Environmental Protection (hereafter, "MassDEP") Form 3 or 4.

Notification of Nonsignificance: a written finding by the Commission that the area on which proposed work is to be done, or which the proposed work will alter, is not significant to any of the Resource Area Values of the Bylaw.

Obstructions or Objects in Water: objects including but not limited to debris, dams, weirs, sluice gates, docks, bulkheads, pilings, and floats.

Ongoing Conditions: Special Conditions outlined in a written Permit issued by the Commission to permit, regulate, or prohibit any activity that removes, fills, dredges, builds upon, or alters any Resource Area and or the AURA. Ongoing conditions, such as maintenance or monitoring requirements, continue beyond the expiration of the permit.

Order: an Order of Conditions, Superseding Order, or any other final Order issued under the Bylaw.

Order of Conditions (OOC): the written document issued by the Commission containing conditions that regulate or prohibit activity in a Resource Area Subject to Protection under the Bylaw. For this Bylaw, an OOC shall be issued using the Bylaw Form 5, with the findings and conditions issued under the Bylaw's jurisdiction so identified.

Outer: When referring to distances within the AURA, "outer" shall refer to the outermost area farthest from the Resource Area.

Parties in Interest: all abutters as determined from the most recent records of the Assessor (Certified Abutters List), all owners of land directly across a body of water (including those persons in another municipality), and all abutters to abutters within three hundred (300) feet of the property line of the owner.

Permit: the document or Order issued by the Commission under the Bylaw which allows work in accordance with conditions set by the Commission necessary to protect the Values and Resource Areas under the Bylaw and its Regulations. Permits may include but are not limited to Orders of Conditions, Small Project Permits, Determinations of Applicability, Emergency Certifications, administrative approvals, or other Orders.

Permit Denial: The document issued by the Commission under the Bylaw that disallows proposed work.

Person: any individual, group of individuals, association, partnership, corporation, company, business, organization, trust, estate, the Commonwealth or political subdivisions thereof to the extent subject to Town Bylaws, administrative agency, public or quasi-public corporation or body, the Town of Shutesbury, and any other legal entity, its legal representatives, attorneys, agents, heirs, successors or assigns.

Plans: such data, maps, engineering drawings, calculations, specifications, schedules, narratives, and other materials as deemed necessary by the Commission.

Pond: any open body of fresh water as defined in 310 CMR 10.04 except that the size threshold of 10,000 square feet shall not apply. A pond, as so defined, is never without standing water due to natural causes, except in periods of extended drought. For purposes of this definition, extended drought is defined at 310 CMR 10.58(2)(a)1.f. as an "Advisory" or more severe drought level in accordance with the Massachusetts Drought Management Plan (MDMP). Basins or lagoons which are part of wastewater treatment plants, swimming pools, or other impervious human-made stormwater retention basins shall not be considered ponds.

Practicable Alternative: that which is reasonably available and capable of being done after taking into consideration the proposed property use, overall project purpose (e.g., residential, institutional, commercial, or industrial), logistics, existing technology, costs of the alternatives, and overall project costs.

Prevention of Pollution: the prevention or reduction of chemicals (e.g., nutrients, hydrocarbons, solvents, metals, vapors) or turbidity known or suspected of causing harm to humans, plants, or animals via exposure to any media (air, water, soil, sediment).

Priority Habitat: the known geographical extent of habitat for all state-listed rare species, both plants and animals, as codified under the Massachusetts Endangered Species Act (MESA). Habitat alteration within Priority Habitats may result in a take of a state-listed species and is subject to regulatory review by the Massachusetts NHESP.

Private Water Supply: any source or volume of surface or groundwater demonstrated to be in any private use or shown to have potential for private use for domestic purposes.

Project Site: the area that comprises the limit of work for activities subject to regulation under the Bylaw and these Regulations.

Protection of Fisheries: Protection of the capacity of an area subject to protection under the WPA or the Bylaw to prevent or reduce contamination or damage to fish and to serve as their habitat and nutrient source.

Protection of Wildlife Habitat: protection of habitat necessary plant or animal species' capacity for breeding, reproduction, and survival within Areas Subject to the Protection of the Bylaw and its Regulations, including but not limited to those listed as endangered, threatened, or of special

concern, or on the Watch List by the Massachusetts NHESP; listed as Federally Endangered or Federally Threatened by the U.S. Fish and Wildlife Service; deemed locally threatened, in writing, by the Conservation Commission; and means protection of the ability of any Resource Area to provide food, breeding habitat, shelter or escape cover and species falling within the definition of wildlife outlined in these Regulations.

Public Water Supply: any source or volume of surface water or groundwater demonstrated to be in public use or approved for water supply pursuant to MGL Chapter 111, § 160 by the Massachusetts Division of Water Supply Protection or shown to have the potential for public use.

Rare Species: all vertebrate and invertebrate animal and plant species, without limitation, listed as endangered, threatened, rare, of Special Concern by the Massachusetts Division of Fisheries and Wildlife Natural Heritage and Endangered Species Program (NHESP), regardless of whether the Division has previously identified the site in which they occur. Estimated and priority habitats of rare and endangered species can be found on the most current NHESP Map.

Reasonable Option: a measure that is available and capable of being done after considering cost, existing technology, and logistics in light of overall project purposes and that has less adverse effects on the Values of the Bylaw. The scope of alternatives or options under consideration shall be commensurate with the type and size of the project. Alternatives may be based on cost, existing technology, proposed use, and logistics in light of the overall project purpose. See also Consideration of Reasonable Options in Article III.

Recreation: any leisure activity or sport taking place in, on, or within a Resource Area, AURA or Riverfront Area, which is dependent on the Resource Area and its Values directly or indirectly for its conduct and enjoyment. Recreational activities include, but are not limited to, the following: noncommercial fishing, hunting, boating, swimming, walking, painting, birdwatching, and aesthetic enjoyment. Structures and activities in the AURA of a Resource Area or Riverfront Area shall not have a significant or cumulative effect on public recreational Values. Notwithstanding this definition, new or expanded recreational activities shall not have a significant or cumulative effect on the other Values protected by this Bylaw.

Remove: to take away any type of material, thereby changing the elevation of land surface or ground, either temporarily or permanently.

Request for Determination of Applicability (RDA): A written request made by any person to the Commission for a determination as to whether an area or activity is subject to the Bylaw.

Resilience: the ability to minimize the negative impacts of climate change and other natural hazards; to increase the capacity of a Resource Area to minimize negative or adverse effects of climate change.

Resource Area: any Protected Area specified in §1 of the Bylaw; synonymous with the Area Subject to Protection under the Bylaw.

River: any natural flowing body of water that empties to any ocean, lake, pond, reservoir, or other river and which flows throughout the year. Rivers include perennial streams (see 310 CMR 10.04: Stream) that are perennial because surface water flows within them throughout the year. Occasionally, a body of running water which does not flow throughout the year may be perennial because the dryness is due to drought, impoundment, or other unusual or unnatural circumstances.

Sedimentation Control: Mitigation measures that prevent or reduce the movement, collection, or concentration of sand, soil, or rock fragments by action of the water, wind, ice, or gravity.

Select Species of Amphibians: species of amphibians that depend upon Vernal Pools for breeding habitat, including but not limited to: mole salamanders (*Ambystoma maculatum, A. jeffersonianum, A. laterale, A. opacum*); four-toed salamander (*Hemidactylium scutatum*); eastern spadefoot toad (*Scaphiopus holbrookii*); American and Fowler's toad (*Bufo a. americanus* and *B. woodhousii fowleri*); spring peeper (*Hyla c. crucifer*); gray tree-frog (*Hyla versicolor*); and wood frog (*Rana sylvatica*).

Self-Imposed Hardship: any alteration of the configuration of a property or properties which would result in more adverse or unacceptable effects on Resource Areas on such property or properties as a result of future development compared to if the property or properties remained in their original configuration(s).

Significant: plays a discernible role, e.g., a Resource Area is significant to a Value of the Bylaw when it plays a role in the provisions or protection, as appropriate, of that Value.

Spring: a Resource Area located created when water pressure causes a natural flow of groundwater onto the earth's surface. As rainwater enters or recharges the groundwater aquifer, pressure is placed on the aquifer, moving water through cracks and channels within the aquifer and flowing naturally to the surface.

Stormwater: runoff caused by water (from precipitation, snowmelt, dewatering, and other sources) flowing over and through land surfaces such as lawns and over impervious areas such as paved streets, parking lots, and building rooftops that often contain pollutants in quantities that could adversely affect the water quality of the water to which the runoff drains, either through stormwater discharge pipes or from diffuse sources. Stormwater runoff may contain bacteria, sediments, toxic organic chemicals, toxic inorganic chemicals, salts, acidic and alkaline chemicals, and other contaminants.

Storm Damage Prevention: the prevention of damage caused by water from storms, as currently occurs and is predicted by best available data to occur from the impacts of climate change, including but not limited to erosion and sedimentation, damage to vegetation, property or buildings or damage caused by flooding, waterborne debris, or waterborne ice.

Storm Flowage: the movement of water caused by a storm up to and including the 100-year storm.

Stream: a body of running water, including brooks and creeks, which moves in a definite channel in the ground due to a hydrologic gradient. A portion of a stream may flow through a culvert or beneath a bridge. A stream may be ephemeral, intermittent, or discontinuous. Criteria and standards to determine the periodicity of flow are found at 310 CMR 10.58(2)(1)(a-d). A stream under the Bylaw does not necessarily drain or flow out of an upgradient wetland.

Structure (within the context of the built environment): anything constructed or built on a fixed location on the ground.

Town: the Town of Shutesbury.

Tree Removal: any act that will cause a tree to die within a three-year period.

Values: the purposes of the Bylaw listed in §1 of the Bylaw.

Vernal Pool: a Resource Area defined, in addition to that already defined under the WPA (MGL Chapter 131 §40) and Regulations thereunder (310 CMR 10.00), as any confined basin or depression not occurring in existing lawns, gardens, landscaped areas, or driveways which, at least in most years with normal or above normal spring season water tables, holds water for a minimum of two (2) continuous months during the spring and/or summer, contains at least two hundred (200) cubic feet of water at some time during most years, is free of adult predatory fish populations, and provides essential breeding and rearing habitat functions for amphibian, reptile, or other Vernal Pool community species, regardless of whether the site has been certified by the Massachusetts Division of Wildlife and Fisheries. The presumption of Vernal Pool habitat may be overcome, however, with the presentation of credible evidence which in the judgment of the Commission demonstrates that the wetland does not provide, or cannot provide, Vernal Pool habitat features. The AURA for Vernal Pools shall extend one hundred (100) feet from the maximum observed or recorded water line defining the depression, or one half of the distance between the Vernal Pool and any existing house or commercial foundation, whichever is smaller. Climate changes, such as increased drought, may impact whether or not an area appears to meet the Vernal Pool presumption in any given year. The Commission shall take into consideration whether the spring Vernal Pool season is one with normal or above normal water tables and/or precipitation, or whether the spring Vernal Pool season has lower than normal water tables and/or precipitation, when determining the validity of any given season's Vernal Pool documentation. If the spring Vernal Pool season has had lower than normal water tables and/or precipitation, the Commission may require provision of scientifically valid data/information, from a time period when normal or above normal hydrologic conditions are present, before an area presumed to be a Vernal Pool is disqualified as such.

Vernal Pool Species: animals that depend upon Vernal Pools and uplands adjacent to Vernal Pools for life including but not limited to wood frogs (*Rana sylvatica*), green frogs (*Rana clamitans*), mole salamanders (*Ambystoma, spp*.), spotted salamanders (*Ambystoma maculatum*), blue-spotted salamanders (*Ambystoma laterale*), four-toed salamanders (*Hemidactylium scutatum*), Jefferson salamanders (*Ambystoma jeffersonianum*), marbled salamanders (*Ambystoma opacum*); Fairy Shrimp (Anostraca: *Eubranchipus*), Fowler's toads (*Bufo woodhoussi fowleri*), American toads (*Bufo americanus*), spring peepers (*Hyla crucifer*), and gray tree frogs (*Hyla versicolor*).

Water-Dependent Uses: those uses and facilities which require direct access to, or location in inland waters and which therefore cannot be located away from said waters, such as marinas, recreational uses of water bodies and waterways, boating facilities, piers, docks, floats, navigation aids, basins, shoreline protection, and channels. Non-water-dependent uses are those which may be located on waterfront property, but do not rely on their close proximity to the water.

Wetland Replication Translocation Methodology: a replication approach that involves the removal, in intact blocks, of wetland impact area soil (at least the top foot or so and the full O and A horizons, with B horizon to the extent possible) and the vegetation growing on and in the block of soil, inclusive of roots and mycorrhizae. The removed blocks are directly transferred to the wetland replication area, which has already been excavated to accommodate the installation of the soil blocks. This approach has the following advantages: soil structure, native plants, and plant root-mycorrhizal relationships (and biodiversity) are preserved to a greater extent; plant density, diversity, and maturity can be greater; substantially less restoration ground surface area

is bare soil following installation; more soil organic carbon is preserved (thus enhancing the water-holding capacity of the wetland replication area soil and reducing loss of soil carbon to the atmosphere due to disturbance of wetland impact area); soil stockpiling and associated compaction, desiccation, erosion, and sedimentation issues are avoided; cost savings include reduced labor due to moving soil only once rather than twice; costs avoided for purchase, transport, and installation of topsoil, nursery plants, and seeding; costs avoided for the cost of mulch, hydroseed, and other materials. Limitations include difficulty in implementation if the wetland impact area is forested, inadvisability if the wetland impact area has significant invasive species, and potential added costs for transporting translocated soil and vegetation if the wetland replication area is a significant distance from the wetland impact area.

Wildlife: Any non-domesticated mammal, bird, reptile, amphibian, fish, mollusk, arthropod, or other invertebrate, other than a species of the Class Insecta (Phylum *Arthropoda*, Subphylum *Tracheata*) that has been determined by the Commonwealth of Massachusetts or any agency thereof to be a pest, the protection of which under the provisions of the Bylaw would be a risk to human health and safety.

Watercourse: a stream wholly or partially made by humans.

Work: the same as "activity."

Definitions outlined in §10 of the Bylaw are incorporated herein by reference, provided, however, these Regulations may expand upon or clarify, but not supersede, the definitions outlined in Section 10 of the Bylaw.

Definitions outlined in Section 310 CMR 10.04 are incorporated herein by reference, provided, however, that the definitions outlined in the Bylaw or these Regulations shall take precedence in the event of any conflict.

ARTICLE III: GENERAL PROVISIONS

1. Burden of Proof

The Burden of Proof is as stated in Section 13 of the Bylaw: *"The applicant for a permit shall have the burden of proving by a preponderance of the credible evidence that the work proposed in the application, will not have unacceptable significant or cumulative effect upon the Resource Area Values protected by this Bylaw. Failure to provide adequate evidence which is, in the opinion of the Commission supporting this burden shall be sufficient cause for the Commission to deny a permit or grant a permit with conditions."*

2. Hardship Waivers

2.1. The Commission may, at its discretion, grant waivers from specifically identified and requested procedures, design specifications, performance standards, or other requirements set forth in the Bylaw or its Regulations, provided that after a public hearing the Commission finds in writing that:

2.1.1. the hardship is not self-imposed;

2.1.2. there are no Reasonable Options that would allow the proposed activity to proceed in compliance with said Regulations and less adverse effects on the Values;

2.1.3. avoidance, minimization, and mitigation have been employed to the maximum extent feasible; and

2.1.4. the waiver is necessary to accommodate an overriding public interest or to avoid a decision that so restricts the use of the property as to constitute an unconstitutional taking without compensation.

2.2. The standards set forth herein shall be the sole basis upon which a waiver shall be granted.

2.3. Applicants shall file a written request for a waiver at the same time as or as soon as possible when an application for a permit is filed with the Commission and, in any event, prior to the close of the hearing on said application. Such waiver request shall be a separate submittal from the application or request forms. It shall be the Applicant's responsibility to provide the Commission with any and all information that the Commission may request to enable the Commission to ascertain any adverse effects of the proposed waiver. The failure of the Applicant to furnish any information that has been so requested shall result in the denial of a waiver request. Such written request shall include, but not be limited to, the following information:

2.3.1. a statement of the relief sought;

2.3.2. a description of all Reasonable Options considered that would avoid or minimize the necessity of the requested relief, along with the reasons why such alternatives were deemed to be unreasonable;

2.3.3. a statement of all efforts that will be undertaken to avoid, minimize, and mitigate the impact upon Resource Areas, including but not limited to restoration measures to be used to contribute to the protection of the Values;

2.3.4. credible evidence in support of the waiver requested.

2.4. A waiver based upon hardship may be granted only for one or more of the following reasons and upon the following conditions:

2.4.1. The Commission determines that the proposed activity, or its natural and consequential impacts and effects, will not have a significant detrimental impact on the Values and that there are no Reasonable Options that will allow the work to proceed in full compliance with these Regulations and the Bylaw.

2.4.2. The Commission determines that a waiver is necessary to avoid so restricting the use of the property as to constitute a taking of private property without compensation.

2.4.3. The Commission determines that any adverse effect on the Values is offset by the need to accommodate an overriding public benefit such as public health and safety, universal accessibility, or community enhancement relative to its cultural, environmental, educational, or recreational Values.

2.5. The Commission may impose conditions, safeguards, limitations, and mitigation requirements in granting a waiver to protect or further the Values protected by the Bylaw and its Regulations. Waivers are intended to be granted only in rare and unusual cases and are issued at the sole discretion of the Commission.

3. Consideration of Reasonable Options

3.1. Work and activity in Resource Areas, including the AURA, should be avoided and discouraged, and alternative options shall be considered that achieve the project purpose and protect the Values.

3.2. Depending on the scope and size of the project, the Commission may require additional specific evidence regarding the Applicant's efforts to minimize impacts on Resource Areas, including the inner fifty (50) feet of the AURA. Information may be required as to other Reasonable Options that would have less impacts and yet meet the project purpose.

4. Presumption Concerning the Application of Herbicides

These Regulations incorporate the presumption set forth in 310 CMR 10.03(6).

5. Presumption of Significance

Each Resource Area Subject to Protection Under Section 2 of the Bylaw is presumed to be significant to one or more of the sixteen (16) Values identified in Section 1 of the Bylaw.

6. Stormwater Management

6.1. Preamble

6.1.1. According to the US Environmental Protection Agency (USEPA), stormwater runoff constitutes the single largest source of pollution causing water quality impairments to our lakes, ponds, and rivers. Stormwater runoff results from rainwater and snowmelt running over streets, lawns, farms, construction sites, and industrial sites where the water picks up sediments, fertilizers, herbicides, pesticides, oil, grease, bacteria, metals, hydrocarbons, and other pollutants prior to discharge to wetlands and water bodies.

6.1.2. Development often results in increased stormwater runoff through increases of impervious surface area with a corresponding decrease in natural drainage features/controls that attenuate and infiltrate runoff. A site under development can alter soils, surface area, and topography resulting in changes in the quantities and rates of runoff entering a Resource Area. Such alterations can change the water budget of a wetland and change wetland functions such as: changing the total volume of water reaching a wetland and affecting the amount of water available to support aquatic and terrestrial habitat; increasing flow volumes during storm events that result in increased flooding of upland or wetland areas, increasing peak flow rates during storm events resulting in increased erosion and subsequent deposition of sediment within Resource Areas; and changes in flow patterns resulting in localized changes in erosion, sedimentation, and surface water storage. Alteration of cover types and development can reduce natural groundwater recharge.

6.1.3. Stormwater runoff, when not properly controlled, treated, and recharged, can adversely affect Resource Areas and their Values.

6.1.4. Proper stormwater management includes evaluation of the quantity, quality, rate, and pattern of stormwater runoff that may enter a Resource Area.

6.1.5. The Commission shall presume that control, treatment, and recharge of stormwater runoff to current scientific and engineering standards is significant to the Values.

6.2. Performance Standards

6.2.1. The Commission adopts the MassDEP Stormwater Management policy as amended and all ten (10) Stormwater Management Standards in 310 CMR 10.05(6)(k).

6.2.2. All stormwater management systems shall comply with the MassDEP's Stormwater Handbook (February 2008 and as it may be amended), as well as all of the following minimum standards:

6.2.2.1. Applicants for projects that generate stormwater runoff shall prioritize, to the maximum extent that is practicable, the use of environmentally sensitive site design and Low Impact Design (LID) techniques as the primary approach in managing on-site stormwater.

6.2.2.2. The Commission shall not permit any alteration resulting in a net increase in stormwater runoff from existing conditions. The post-project hydrologic budget must equal the pre-project hydrologic budget.

6.2.2.3. Adequate structures shall be designed and built to safely control and pass any overflow above design capacity without causing erosion or increase in downgradient flooding.

6.2.2.4. All stormwater management systems shall be designed and constructed so that the bottom of the system (lowest point of excavation for system installation) is placed at least two (2) feet above seasonal high groundwater.

6.2.2.5. All stormwater management systems shall include provisions, submitted with an application, in a long-term Operations and Maintenance Plan for regular inspection, maintenance, repair, and operation in order to maintain design performance.

6.2.2.6. Stormwater management systems shall be designed, to the greatest extent practicable, to remove at least 80% of the average annual post-construction load of Total Suspended Solids (TSS).

6.2.2.7. All stormwater management systems shall remove sediment, nutrients, hydrocarbons, and bacteria from stormwater flow to the maximum extent possible.

6.2.2.8. All stormwater management systems shall be designed and constructed to adequately control, contain, and recharge flow resulting from a 24-hour, 2-year, 10-year, and 100-year storm events. This requirement is designed to decrease the likelihood of downstream and off-site flooding, as well as to contribute to groundwater recharge. If the evaluation of peak discharge impacts from the 24-hour, 100-year storm event shows that retaining this volume of stormwater onsite will cause adverse impacts to downstream resources due to placement in the watershed or timing of release of stormwater, the Commission may waive this provision. A request for waiver from this provision shall include credible evidence substantiating that retaining the 24-hour, 100-year storm event onsite is not needed and would cause irreparable harm to downstream or offsite areas.

6.2.2.9. Rainfall amounts used for stormwater management design and analysis shall be based on NOAA Atlas 14, Volume 10 (or as it may be amended).

6.2.2.10. All footing drains and all stormwater outfalls must be, at a minimum, outside of the 50-foot Inner AURA and must be shown on all plans. See 310 CMR 10.03(4).

6.3. Commensurate with the size, scope, and complexity of a proposed activity, the Commission may also require additional information in support of a stormwater management design, including but not limited to engineering calculations showing pre- and post-development peak runoff conditions for comparative purposes and soils investigation data involving test pits to confirm stormwater BMP design parameters.

6.4. For the purpose of maintaining original design performance, BMPs approved by the Commission shall be regularly maintained in accordance with methods accepted and included in the Orders of Conditions. Work conducted to maintain stormwater management systems may continue without further permitting through the Commission. Any work required to replace or upgrade major components of a stormwater management system shall require that the landowner contact the Conservation Commission for a determination of whether a permit is needed from the Commission prior to the work being conducted.

7. Resource Area Delineation

7.1. Delineation of the boundary of Fresh Water Wetlands (Bordering & Isolated) shall be governed by:

7.1.1. 310 CMR 10.55 (2)(c)

7.1.2. MassDEP Wetlands Program Policy 95-1

7.1.3. The MassDEP Publication, entitled "Massachusetts Handbook for Delineation of Bordering Vegetated Wetlands-Second Edition", dated September 2022 (or as it may be amended).

7.1.4. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0),* 2012, ed. J.S. Wakeley, R.W. Lichvar, C.V. Noble, and J.F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

7.1.5. *Classification of the Natural Communities of Massachusetts*. Massachusetts Division of Fisheries and Wildlife, dated April, 2020 (or as it may be amended).

7.2. See Article II and Article IV for specific definitions and boundary characteristics of other Inland Wetland Resource Areas.

7.3. See *Classification of the Natural Communities of Massachusetts* for description of forest seep plant communities.

7.4. Wetland plant communities, which are dominated by wetland indicator plants shall be presumed to be underlain by Hydric Soils. Wetland indicator plants shall include but not necessarily be limited to those plant species identified in the WPA. Wetland indicator plants are also those classified in the indicator categories of Facultative, Facultative Wetland, or Obligate Wetland in the National Wetland Plant List, Version 3.5 (US Army Corps of Engineers, 2020 or as it may be amended). Wetland plants exhibit physiological or morphological adaptations to life in saturated or inundated conditions. The line between the upland plant community and wetland plant community may be distinct or abrupt. With these conditions, the Commission may determine that sole reliance on wetland indicator plants will yield an accurate delineation.

7.5. Where natural vegetation is absent because of mowing, grazing, or other disturbance, the presence of Hydric Soils (soils that are annually saturated, as evidenced by observed

groundwater, gleyed soils, or redoximorphic features within 18" of the surface) shall provide positive determination of jurisdiction. In cases where natural vegetation is absent as a result of filling, draining, or other alteration, historic evidence and records may provide positive determination or jurisdiction.

7.6. Whenever possible, delineation of Freshwater Wetlands should be avoided under abnormally dry conditions, which can occur during dry seasons or declared drought periods. If delineation must be conducted during these dry periods, Resource Area delineation methodology and criteria should be modified as follows: If the hydrophytic status of the area's vegetation during periods of average precipitation cannot be determined, consideration of vegetation, including herbaceous vegetation, shall be excluded, and Resource Area boundaries shall be delineated based on Hydric Soil conditions and evidence of wetland hydrology. If appropriate, woody and other perennial species can be considered.

7.7. While the Commission reviews and confirms wetland delineations, the Applicant shall have the burden of ensuring that they have accurately identified all Resource Areas. For large or complex sites, the Commission may require the Applicant to obtain professional delineation review at the Applicant's expense.

7.8. Winter Delineations

7.8.1. Delineating or verifying Resource Area boundaries during the winter months, especially with deep snow cover or frozen soil conditions, is complex and, under extreme conditions, virtually impossible. Vegetation and other hydrology indicators used to determine wetland boundaries are not readily observable or may be misleading during these times. When these conditions exist, it is also impossible to conduct field verification of a delineation that was performed under more favorable conditions but only submitted to the Commission when unfavorable conditions existed.

7.8.2. The Commission may find it necessary and appropriate to continue any hearing on a filing with an unapproved wetland delineation until conditions have improved sufficiently to permit field verification of the submitted delineation. The Commission Chair or other designated representative is authorized to determine when such conditions exist and thereafter schedule a Commission site visit for evaluation purposes when conditions allow.

7.8.3. Exceptions to this procedure outlined in this Section may be granted upon a written request stating the reasons for the exceptions sought. Each request shall be evaluated on its own merits, on a case-by-case basis, taking into account the type(s) of Resource Areas being delineated, the type of work proposed, and the distance between the work and the unapproved Resource Area delineation. When warranted, the grant of an exception on any given property or for any particular application shall be for that one instance only.

7.8.4. If the Applicant does not agree to a meeting or hearing continuance in order to allow the Commission to complete an adequate field verification of the Resource Area boundaries affecting a particular application, the Commission shall close the hearing and render a decision based on the information available, which may result in a denial for lack of information. The Commission will defer final action on COC determinations using the same procedures described above until conditions improve sufficiently to permit a site visit.

7.9. Qualifications: Minimum qualifications for Resource Area delineation shall be a professional wetland scientist with at least two years of training and experience in wetland plant,

soil identification, and delineation. Delineation of subsurface streams, as defined in Section IV below, shall require a qualified, professional hydrologist or hydrogeologist with at least two years of training and experience and a working knowledge of hydrology and geology.

8. Wildlife Habitat

8.1. Presumptions

8.1.1. The protection of the habitats of both common and rare species of plant and animal communities are Values. The Commission presumes that protecting the habitats of rare species within Resource Areas are significant to these Values.

8.1.2. If a proposed project is found by the Commission to alter a Resource Area that is part of the habitat of a State-Listed species, such project shall not be permitted to have any short- or long-term adverse effects on the habitat of the local population of that species. A determination of whether or not a proposed project will have such an adverse effect shall be made by the Commission based on the written opinion of the NHESP.

8.2. Performance Standards

8.2.1. The Commission accepts and adopts the definitions, requirements, and Performance Standards for wildlife habitat as specified in 310 CMR 10.00.

8.2.2. The Commission may require a wildlife habitat study of the project area, to be paid for by the Applicant, whenever it deems appropriate, regardless the type of Resource Area or the amount or type of alteration proposed. The decision shall be based upon the Commission's estimation of the importance of the habitat area considering (but not limited to) such factors as proximity to other areas suitable for wildlife, importance of wildlife "corridors" in the area, or actual or possible presence of rare plant or animal species in the area. The work shall be performed by an individual who at least meets the qualifications set out in the wildlife habitat section of the WPA Regulations at 310 CMR 10.60.

8.2.3. If a project is within Estimated Habitat, as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetlands Wildlife published by NHESP, a full copy of any Permit request shall be sent by the Applicant to the NHESP. Such copy shall be sent by the date of filing the application with the Commission. Proof of timely submission to NHESP shall be included in the application. Before issuing any Order, permit, or other Determination for a project located within mapped Estimated Habitat, the Commission shall require proof of NHESP review as required by state law. The Commission may incorporate into any such permit those conditions deemed necessary to protect rare and endangered species.

8.2.4. The Commission shall give special attention to including topographical and ecological features that it deems important for maintaining the wildlife habitat value of the Resource Area. The potential presence of rare or endangered species and their specific sensitivity to activities within the AURA shall be considered in determining any conditions or restrictions. The Commission shall consider evidence of the presence of such species or evidence of likely habitat. The Commission may consult with NHESP or other authorities as necessary for guidance and recommendations.

8.2.5. The Commission will evaluate the potential for an unacceptable significant or cumulative effect of work within Resource Areas. For wildlife habitat purposes, an "unacceptable significant or cumulative effect" is defined as an impact that would, under

reasonable assumptions, result in a measurable decrease in the extant wildlife populations or biological structure, composition, or richness on the site or in the vicinity, taking into account the projected impacts of future projects that could be proposed in the vicinity with similar, comparable, or other significant impacts and disturbance.

9. Title 5 and Septic Systems

9.1. Preamble

9.1.1. The State Environmental Code (310 CMR 15.00 et. Seq., hereafter referred to a "Title 5"), administered locally by the Shutesbury Board of Health (BOH), is a minimal public health regulation that may be supplemented at the local level. The use of septic systems may have a significant or cumulative adverse effect on the Values.

9.1.2. Where septic-derived contaminants are concerned, the Bylaw and Bylaw Regulations complement local BOH Regulations, which are independently authorized and administered.

9.2. Presumptions

9.2.1. A subsurface sewage disposal system that is to be constructed in compliance with the requirements of Title 5, or any more stringent local BOH requirements or Zoning Bylaws, shall be presumed to protect any and all Values, provided that all of the components of said system are located outside of all Resource Areas, including the AURA and Riverfront Area.

9.2.2. Any proposed septic system within an area subject to the protection of the Bylaw that does not meet the provisions of Title 5 of the State Environmental Code (310 CMR 15.00 et seq.), the Shutesbury Board of Health Regulations, and the Shutesbury Zoning Bylaw shall be presumed to have an unacceptable significant and cumulative effect on Resource Areas and the Values.

9.3. Performance Standards

9.3.1. If an Applicant seeks authorization for a new construction septic system, an expansion of an existing system, or a renovation or replacement of an existing septic system located within the outer fifty (50) feet of the AURA and such system receives Shutesbury BOH approval, the Commission shall presume the design meets requirements for effluent impacts, and the Commission shall only review and regulate construction-phase impacts.

9.3.2. If an Applicant seeks authorization for new construction septic system, an expansion of an existing system, or a renovation or replacement of an existing septic system located within the inner fifty (50) feet of the AURA and such system receives Shutesbury BOH approval, the Commission shall presume the design meets requirements for effluent impacts, and the Commission shall only review construction impacts. However, this presumption of no adverse impact on the Values may be overcome by credible evidence from a Competent Source that such system does not protect the Values.

9.3.3. The Commission shall presume that a new construction septic system, an expansion of an existing system, or a renovation or replacement of an existing septic system, that receives Shutesbury BOH approval and is subject to the requirements in Sections 8.3.1. and 8.3.2. above, protects the Values of the Bylaw.

10. Docks, Piers, and Floats

10.1. Preamble

10.1.1. Lake Wyola is designated by the Massachusetts Public Waterfront Act (MGL Chapter 91) as a Great Pond. The requirements and licensing of docks, piers, and floats on Lake Wyola are regulated by the MassDEP Waterways Program. Chapter 91 licensing requires an Order of Conditions or Determination by the Commission before a license can be issued, unless the project is otherwise subject to exemptions included in MassDEP Chapter 91 License Application.

10.1.2. Applications for water-dependent structures, including but not limited to docks, piers, walkways, and floats shall comply to the greatest extent practicable with the applicable design standards and recommendations listed in the MassDEP Guide entitled, "Small Docks and Piers" (November 2003 or as it may be amended).

10.1.3. Lake Wyola and portions of its watershed have historically been designated and mapped as Priority Habitat for rare species by MassWildlife's Natural Heritage and Endangered Species Program (NHESP). Projects within areas mapped for endangered species must submit their wetland application to NHESP for review at the same time they submit to the Conservation Commission. Before granting an Order of Conditions or Determination, the Conservation Commission shall require proof of NHESP review.

10.1.4. The construction, existence, maintenance, use, and repair of water-dependent structures over time is likely to have significant and cumulative adverse effects on the Values. Individual or multiple structures for Water-Dependent Uses in close proximity to each other have the potential to degrade Resource Areas by altering water quality, water circulation, bottom sediments, Banks, LUWW, aquatic animals and vegetation, fisheries, wildlife habitat, as well as rare species and their habitat.

10.1.5. Docks, piers, walkways, and floats have the effect of segmenting wetlands and may inhibit their functions. Increased erosion, scouring, and undercutting of Banks may also occur in the near vicinity of these structures. Docks can cause shading of underlying vegetation, resulting in adverse effects to plant productivity.

10.1.6. The Commission encourages landowners to obtain Chapter 91 licenses for any pre-existing docks, piers, or floats as appropriate.

10.2. Definitions

10.2.1. The terms "dock" and "pier" and "float" shall be used interchangeably for the purpose of these Regulations and shall mean the entire structure of any pier, dock, walkway, or float and any part thereof, including pilings, gangways, ramps, transition plates, stairs, platforms, decking, railing, flotation supports, tie-off pilings that is located on a Bank, LUWW, BVW/IVW, Riverfront Area, or the AURA.

10.2.2. "Navigation" shall mean the ability to traverse a water body or waterway by watercraft.

10.2.3. "Seasonal use" shall mean the use of a dock, ramp, float, and all supporting materials, are only allowed in place in any Resource Area from April 1 of each year to November 1 of each year, unless the raising and lowering of the lake determined by the Dam keeper is outside this time period.

10.3. Presumptions

10.3.1. The construction or use of a water-dependent structure such as a dock (permanent or seasonal), pier, or float, shall be presumed to affect the Values of adjacent Resource Areas, including but not limited to LUWW, Bank, Freshwater Wetlands, Land Subject to Flooding, Riverfront Area, and AURA. This presumption is rebuttable and may be overcome upon a preponderance of evidence showing that the activity or structure does not affect said Values. If the presumption is deemed to have been overcome, the Commission shall make a written determination to this effect, setting forth its grounds.

10.4. Performance Standards

10.4.1. The Commission shall review a proposed dock (seasonal or permanent), pier, walkway, float, buoy, swimming platform or other water-dependent structure upon the submission of an NOI. Such application shall include proof of submission to NHESP for review if applicable, and proof of Chapter 91 license application submission.

10.4.2. If the Commission receives an application for any proposed activity in a Resource Area or the Aura on a property with an existing but unlicensed dock, pier, walkway, or other water-dependent structure, a condition of the OOC shall require that the Chapter 91 license be obtained, unless otherwise exempted in Chapter 91. A Certificate of Compliance shall not be granted until proof of a duly recorded Chapter 91 license is provided to the Commission.

10.4.3. While each application shall be reviewed on a case-by-case basis, the Commission shall also consider cumulative adverse impacts upon the wetland Values caused by the installation of multiple water-dependent structures, including but not limited to docks, piers and/or floats within the same Resource Area or adjacent Resource Areas.

10.4.4. Dock, pier, walkway, or float installation and/or use shall not degrade Resource Areas. The construction/assembly, and siting of such structures must minimize adverse effects on Resource Areas.

10.4.5. Maintenance of water dependent structures within Resource Areas other than the AURA shall not include the use of hazardous chemicals, cleaners, paints, or wood treatments.

10.4.6. Notwithstanding the provisions listed above, no project may be permitted which will have any adverse effect on the specified habitat of rare species, as identified on the most recent Priority Habitat and Estimated Habitat Map of state-listed rare wetland plants and wildlife, published by NHESP.

10.4.7. Floats, docks and boats must be stored in an area outside of a Resource Area, except the AURA or Riverfront Area, and must be transported thereto without causing damage to any Resource Area. A storage plan for seasonal docks must be included in the application.

ARTICLE IV: STANDARDS FOR INLAND WETLANDS

Unless otherwise specified herein, all Resource Areas and associated Preamble, Definitions, Presumptions, and General Performance Standards under the WPA and its Regulations shall apply.

1. Banks (Naturally Occurring and Human-Made Banks and Beaches)

1.1. Preamble

1.1.1. Banks are areas where groundwater discharges to the surface and where, under some circumstances, surface water recharges the groundwater.

1.1.2. Where Banks are partially or totally vegetated, the vegetation serves to maintain the Bank's stability, which in turn protects water quality by reducing erosion and siltation. Partially or totally vegetated Banks provide habitat for wildlife.

1.1.3. Banks are likely to be significant to wildlife habitat, public or private water supply, groundwater supply, flood control, storm damage prevention, pollution prevention, and fisheries protection. Where Banks are composed of concrete, asphalt, or other artificial impervious material, said Banks are likely to be significant to flood control and storm damage prevention. In these ways, Banks are important in mitigating the negative impacts of climate change.

1.1.4. Banks may also provide shade that moderates water temperatures and provides breeding habitat, escape cover, and food, all of which are significant to the protection of fisheries. Banks that drop off quickly or overhang the water's edge often contain numerous undercuts, which are favorite hiding spots for important species.

1.1.5. Banks act to confine floodwaters during storms, preventing the spread of water to adjacent land. Because Banks confine water during storms to an established channel, they maintain water temperatures and depths necessary for the protection of fisheries. Maintaining cool water temperatures during warm weather is critical to the survival of many species. An alteration of a Bank that permits water to spread frequently or consistently over a larger and more shallow area increases the amount of property that is routinely flooded, as well as elevates water temperatures and reducing fish habitat within the main channel, particularly during warm weather.

1.1.6. Banks' topography, plant community composition and structure, and soil structure provide important food, shelter, migratory and overwintering areas, and breeding areas for wildlife. Topography plays a role in determining the suitability of Banks to serve as burrowing or feeding habitat. Soil structure also plays a role in determining the suitability for burrowing, hibernation, and other cover. Bank topography and soil structure impact the Bank's vegetative structure as well. Bushes and other undergrowth, trees, vegetation extending from the Bank into the water, and vegetation growing along the water's edge are also important to a wide variety of wildlife. A number of tubers and berry bushes also grow in Banks and serve as important food for wildlife. Finally, Banks may provide important shelter for wildlife that must move between wetland areas.

1.1.7. Land bordering or within one hundred (100) feet of a Bank is likely to be significant to the protection and maintenance of the Bank and, therefore, to the protection of the Values.

1.2. Definitions, Critical Characteristics, and Boundaries

1.2.1. A Bank is the portion of the land surface that normally abuts and confines a water body or Freshwater Wetland. A Bank may occur between a water body and a Freshwater Wetland, an adjacent flood plain, or, in the absence of these, between a water body and the AURA. Bank may be partially or totally vegetated, or it may be comprised of exposed soil, gravel, stone, or sand.

1.2.2. The upper boundary of a Bank is the first observable break in the slope or the mean annual flood level, whichever is lower in elevation. The lower boundary of a Bank is the mean annual low flow level.

1.2.3. The physical characteristics of a Bank, as well as its location, as described in the preceding Subsections 1.2.1 and 1.2.2, are critical to protecting the Values.

1.2.4. Land within one hundred (100) feet of a Bank is likely to be significant to the protection and maintenance of the Bank and, therefore, to the protection of the Values.

1.3. Presumptions

Where a proposed activity involves removing, filling, dredging, or altering a Bank or within 100 feet of a Bank, the Commission shall presume that such area is significant to the Values and the adjacent Resource Areas. This presumption is rebuttable and may be overcome upon a preponderance of evidence showing that the Bank does not play a role in the protection of said Values. If the presumption is deemed to have been overcome, the Commission shall make a written determination to this effect, setting forth its grounds.

1.4. Performance Standards

1.4.1. Where the presumption set forth in the foregoing Section 1.3 is not overcome, any proposed work on a Bank shall not impair the following:

1.4.1.1. the physical stability of the Bank;

1.4.1.2. Bank height;

1.4.1.3. the water carrying capacity of the existing channel within the Bank;

1.4.1.4. groundwater and surface water quality; and

1.4.1.5. the capacity of the Bank to provide breeding habitat, escape cover, and food for fisheries and wildlife.

1.4.2. Work on a stream crossing shall be presumed to meet the Performance Standard set forth in 310 CMR 10.54(4)(a) provided the work is performed in compliance with the Massachusetts Stream Crossing Standards by consisting of a span or embedded culvert in which, at a minimum, the bottom of a span structure or the upper surface of an embedded culvert is above the elevation of the top of the Bank. The structure spans the channel width by a minimum of 1.2 times the bankfull width.

1.4.3. When a project is proposed to alter greater than 10% of the length of a Bank or 50 linear feet (whichever is less) on a single lot, or cumulatively for multi-lot projects, the Applicant shall complete Appendix A: Simplified Wildlife Habitat Evaluation of the *Massachusetts Wildlife Habitat Protection Guidance for Inland Wetlands* (March 2006 and as it may be amended). Depending on the information presented in Appendix A, Applicants may also be required to complete Appendix B: Detailed Wildlife Habitat Evaluation.

2. Freshwater Wetlands

2.1. Preamble

2.1.1. Bordering Vegetated Wetlands (BVWs) and Isolated Vegetated Wetlands (IVWs) are Freshwater Wetlands. They are areas where the topography is low and flat and where the soils are annually saturated. They may be bordering on surface water bodies or may be isolated.

2.1.2. Freshwater Wetlands include but are not limited to Wet Meadows, Marshes, Swamps, Bogs, Hillside Seeps and Springs. The groundwater and surface water regime and the vegetative community that occur in Wet Meadows, Swamps, and Bogs are specified in the WPA (MGL Chapter 131 §40): sixth paragraph (Bogs), ninth paragraph (Swamps), tenth paragraph (Wet Meadows), and eleventh paragraph (Marshes).

2.1.3. Freshwater Wetlands also include areas where groundwater, or flowing or standing surface water provide a significant part of the supporting substrate for a plant community for at least five (5) months of the year, such as a Hillside Seep, and areas of emergent and submerged plant communities in inland waters.

2.1.4. Freshwater Wetlands are likely to be significant to public or private water supply, groundwater supply, flood control, storm damage prevention, pollution prevention, and fisheries and wildlife habitat protection.

2.1.5. Freshwater Wetlands form a point of exchange between groundwater and surface water and are likely to be significant to public and private water supply and groundwater supply. Freshwater Wetlands serve as recharge and discharge areas, contributing to local and regional groundwater flow. Seasonal changes in functions may occur, with some wetlands contributing to groundwater during high water periods (recharge in the spring) and receiving groundwater inputs during the dry season (late summer) due to high evapotranspiration rates. The intricate underground network of fissures and subterranean streams associated with Freshwater Wetlands can move water rapidly through the hydrological system.

2.1.6. Freshwater Wetlands are important for the prevention of pollution. The plant communities, soil, and topography of Freshwater Wetlands remove or detain sediments, nutrients (such as nitrogen and phosphorous), bacteria and other microorganisms, and toxic substances (such as heavy metal compounds) in runoff and flood waters. Some nutrients and toxic substances are retained for years in plant root systems or soils. Others are held by plants during the growing season and released as the plants decay in the fall and winter. This latter phenomenon delays the impact of nutrients and toxins until the cold weather period when such impacts are less likely to reduce water quality.

2.1.7. When Freshwater Wetlands are lost, receiving waters and watersheds are more likely to be impacted by contaminants such as nutrients, herbicides, and pesticides. Water is recharged at upper elevations and discharged to regional lows (e.g., other wetlands, lakes, local rivers, and streams).

2.1.8. Development of adjacent uplands can introduce nutrients from runoff which can alter plant composition. Freshwater Wetlands provide nutrient transformation and cycling/water-quality maintenance benefits.

2.1.9. When underlain by peat, Freshwater Wetlands play a significant role in carbon sequestration. Disturbance of these wetlands can lead to significant carbon release to the atmosphere.

2.1.10. Freshwater Wetlands may be areas where groundwater discharges to the surface and, under some circumstances, surface water discharges to the groundwater. The profusion of vegetation and the low topography of Freshwater Wetlands slow down and reduce the passage of flood waters during peak flows by providing temporary flood water storage and facilitating water removal through evaporation and transpiration. This process reduces downstream flood

crests and resulting damage to private and public property. During dry periods, the water retained in Freshwater Wetlands is essential to maintaining base flow levels in rivers and streams, which in turn is important to protecting water quality and water supplies.

2.1.11. Freshwater Wetlands provide shade that moderates water temperatures important to fish life. Wetlands flooded by adjacent water bodies and waterways provide food, breeding habitat, and cover for fish.

2.1.12. Freshwater Wetlands and their AURA serve to moderate and alleviate thermal shock and pollution resulting from runoff from impervious surfaces, which may be detrimental to wildlife, fisheries downstream of the wetlands.

2.1.13. Freshwater Wetlands and their AURA are important habitat for wildlife. The hydrologic regime, plant community composition and structure, soil composition and structure, topography, and water chemistry of Freshwater Wetlands provide important food, shelter, migratory and overwintering areas, and breeding areas for many birds, mammals, amphibians, and reptiles. A wide variety of vegetative wetland plants, the nature of which is determined in large part by the depth and duration of water, as well as soil and water composition, are utilized by various species as important areas for mating, nesting, brood rearing, shelter, and (directly and indirectly) food. The diversity and interspersion of the vegetative structure are also important in determining the nature of its wildlife habitat. Different wildlife species use different habitat characteristics during summer, winter, and migratory seasons.

2.1.14. Freshwater Wetlands provide localized cooling within the wetland, surface and groundwater supplies, and adjacent ecosystems and human communities. Cooling effects result from the volume of water found in wetlands, which modifies air and water temperatures similar to how waterbodies modify temperatures, and from shade provided by vegetation.

2.1.15. Freshwater Wetlands sequester and store significant amounts of carbon in biomass and soils. The Values contribute to increasing the resilience of adjacent ecosystems, wildlife habitat, and human communities.

2.2. Definitions, Critical Characteristics, and Boundary

2.2.1. BVWs are Freshwater Wetlands that border on surface water bodies or other Bylaw Resource Areas, including creeks, rivers, streams (perennial or intermittent), ponds, reservoirs, and lakes.

2.2.2. IVWs are isolated Freshwater Wetlands that meet the same definitional requirements as BVWs, except for the bordering component. Freshwater Wetlands may be geographically isolated from other Resource Areas or within other Resource Areas.

2.2.3. Hillside seeps are upland springs, pools, or other wet places where groundwater naturally comes to the surface. Soils in seeps remain saturated for all or part of the growing season and often stay wet all winter. Surface waters often percolate back into the ground through porous layers of sand or gravel, but on hillsides, seeps may be headwaters for small streams. In forests, hillside seep plant communities often include surrounding upland canopy tree species. The shrub layer may be variable, dense, or barely present, and may include mixed wetland and upland plants. Many hillside seeps have dense herbaceous layers. See “Resource Area Delineations” in Article III.

2.2.4. The boundary of BVWs and IVWs is the line determined by the methodology in Article III, "Resource Area Delineations."

2.2.5. The methodology for determining the boundary of Vernal Pools is described in the definition of Vernal Pool in Article III and in the Section on Vernal Pools below.

2.3. Presumptions

2.3.1. Where a proposed activity involves the removing, filling, dredging, or altering of a Freshwater Wetland, the Commission shall presume that such an area, as well as the area within the AURA of said Freshwater Wetland, is significant to the Values. This presumption is rebuttable and may be overcome upon a preponderance of credible evidence showing that the Freshwater Wetland does not play a role in the protection of said Values. If the presumption is deemed to have been overcome, the Commission shall make a written determination to this effect, setting forth its grounds.

2.3.2. IVWs of at least five hundred (500) square feet in surface area are presumed to be significant to the protection of the Values.

2.3.3. Springs and Hillside Seeps, including upland pools and other wet areas, are presumed to be significant to the Values, but that presumption may be rebutted upon the submission of credible evidence from a Competent Source, demonstrating to the satisfaction of the Commission that such feature is not significant to the Values of the Bylaw.

2.4. General Performance Standards

2.4.1. Where the presumptions set forth in Subsection 2.3 above are not overcome, any proposed work in a Freshwater Wetland shall not destroy, alter, or otherwise impair any portion of said area.

2.4.2. No activity, other than maintenance of an already existing structure, so long as such maintenance does not involve ground disturbance or alteration of the footprint, which will result in the building within or upon, removing, filling, or altering a Freshwater Wetland, shall be permitted by the Commission.

2.4.3. When a project is proposed to alter less than five thousand (5,000) square feet of Freshwater Wetlands, the Applicant shall complete "Appendix A: Simplified Wildlife Habitat Evaluation" of the *Massachusetts Wildlife Habitat Protection Guidance for Inland Wetlands* by the MassDEP (March 2006 or its successor). Projects proposing to alter Freshwater Wetlands within mapped habitat of potential regional or statewide important shall include completion of "Appendix B: Detailed Wildlife Habitat Evaluation" and certification that the project has been designed so that there is no adverse effect on wildlife habitat.

2.4.4. The Commission may allow work in a Freshwater Wetland that results in the loss of up to five thousand (5,000) square feet of a Freshwater Wetland when said area is replaced in at least a 2:1 ratio in a manner to ensure that the replacement area will provide a viable wetland that replaces the functions and Values of the area lost. Detailed project design is required to guarantee that wetland impacts are avoided to the maximum extent possible, to minimize absolutely necessary impacts and lastly, to successfully replicate losses that cannot be avoided. The design of replication areas shall carefully consider and incorporate to the extent practicable the standards in *The Massachusetts Inland Wetland Replication Guidelines,*

Second Edition, by MassDEP (September 2022 or its successor). The Commission may accept restoration of a degraded wetland as satisfying the foregoing replication requirement.

2.4.5. Required design criteria: Projects involving permanent Freshwater Wetland alterations shall meet the requirements of 310 CMR 10.60(3) and 310 CMR 10.55(4) and also the following requirements of the Commission:

2.4.5.1. The proposed replication area design must be submitted to the Commission for approval as part of the submittal of the project NOI.

2.4.5.2. Applicants shall conduct a feasibility assessment to determine if the translocation of intact wetland impact area soils and vegetation is possible for the proposed wetland replication area. If so, wetland replication area design shall implement Wetland Replication Translocation Methodology (WRT) to the greatest extent possible. If not, Applicants shall reassess chosen location and design of the wetland replication area to determine if adjustments in the location and design will allow for use of the WRT Methodology. Only if the WRT Methodology proves unfeasible can a wetland replication design be based on use of trucked-in or stockpiled topsoil and nursery plants and seeds.

2.4.5.3. Depending on the unique circumstances of a proposed activity, the Commission may require an even higher replacement ratio if impacts are proposed.

2.4.5.4. At a minimum, the replicated wetland must reproduce all the Values and functions of the original wetland as determined by the Commission. The type of wetland created shall be similar to that lost in terms of physiology and function (e.g., similar plant species, hydrologic regime, and soils) except where an improvement in physiology and function is proposed.

2.4.6. If the Commission determines that it is unfeasible to create a replacement Freshwater Wetland on site, it may require the Applicant to contribute financially to the construction of an offsite replacement area in wetlands under the control of the Commission, the contribution not to exceed the actual cost of the wetland replacement.

2.4.7. The Commission may issue an OOC permitting work that results in the loss of a portion of Freshwater Wetland when:

- said portion has a surface area less than 500 square feet;
- said portion extends in a distinct linear configuration (“finger-like”) into adjacent uplands; and
- in the judgement of the issuing authority it is not reasonable to scale down, redesign or otherwise change the proposed work so that it could be completed without loss of said wetland.

2.4.8. Notwithstanding the provisions listed above, no project may be permitted which will have any adverse effect on specified habitat sites of rare vertebrate or invertebrate species, as identified by procedures established under 310 CMR 10.59.

2.4.9. The above provisions shall not apply to the maintenance of stormwater detention, retention, or sedimentation ponds, drainage easements, or to the maintenance of stormwater emergency dissipating structures that have been constructed in accordance with a valid OOC.

3. Vernal Pools

3.1. Preamble

3.1.1. Vernal Pools constitute a unique and increasingly rare type of wetland inhabited by many species of wildlife, some completely dependent on Vernal Pools and their associated habitat for survival.

3.1.2. Vernal Pools, which confine water for a minimum of two continuous spring months but lack vertebrate predators such as adult fish, are significant in the support of duckweed, caddis flies, and mollusks, thus providing habitat for members of the fingernail and pea clam family (*Sphaeriidae*), numerous amphibians, reptiles (including spotted turtle, painted turtle, and snapping turtle) and a number of other animals. Vernal pools, in addition, may provide critical breeding habitat for a variety of Vernal Pool Species, including but not limited to Jefferson salamander (*Ambystoma jeffersonianum*), blue-spotted salamander (*A.* l*aterale*), marbled salamander (*A. opacum*), spotted salamander (A. maculatum), and wood frog (*Rana sylvatica*), as well as feeding and occasional breeding habitat for the gray treefrog (*Hyla versicolor*), spring peeper (*H. crucifer*), American toad (*Bufo americanus*), and four-toed salamander (*Hemidactylium scutatum*).

3.1.3. Vernal Pools provide habitat for threatened and endangered species and species of concern. Areas in the immediate vicinity of the Vernal Pool (i.e., the AURA) provide these species with important non-breeding habitat functions, such as migratory pathways, feeding, shelter, and over-wintering sites. Many other species utilize Vernal Pools and their associated AURAs for breeding and non-breeding functions, although such species are not limited to this type of wetland. Protecting Vernal Pools and their associated AURAs are essential for the survival of wildlife species that depend on these unique and threatened Resource Areas. Vernal Pools need not be state certified to be protected under the Bylaw or these Regulations.

3.1.4. The extreme edges of Vernal Pool habitat represent one of the most ecologically valuable portions of these habitats. Shallow water at the edges of a pool generally is the first to thaw in the spring. This provides early access to the pool for the earliest breeding species. The shallow water zones also tend to be significantly warmer than the deeper portions of a Vernal Pool throughout the spring. Egg masses of early breeding amphibians benefit from the warmer water temperatures at the pool edges that promote rapid egg development.

3.1.5. Vernal Pool habitat connectivity is essential for the survival of many Vernal Pool species and biodiversity conservation. Protection of individual pools or pools with associated upland habitat may be ineffective over the long term if connectivity among pools is not maintained.

3.1.6. The protection of Vernal Pools and their associated AURA are essential for the survival of wildlife species that depend on these unique and threatened Resource Areas.

3.2. Critical Areas and Boundary

3.2.1. Vernal Pools shall include, in addition to scientific definitions found in the WPA Regulations, any confined basin or depression not occurring in existing lawns, gardens, landscaped areas or driveways which, at least in most years, holds water for a minimum of two continuous months during the spring and/or summer, contains at least two hundred (200) cubic feet of water at some time during most years, is free of adult predatory fish populations, and provides essential breeding and rearing habitat functions for amphibian,

reptile or other Vernal Pool species, regardless of whether the site has been certified by the MA NHESP.

3.2.2. The boundary of the Vernal Pool AURA, also referred to as the Vernal Pool Envelope, for Vernal Pools shall be 100 feet outward from the mean annual high-water line defining the depression, but shall not include existing lawns, gardens, landscaped or developed areas. The Vernal Pool Envelope or AURA is regulated as a No-Disturbance Zone under these Regulations.

3.2.3. Presumption that a confined basin is a Vernal Pool: the Bylaw presumes that a Vernal Pool and its Envelope (AURA) exist if the area's physical characteristics conform with those basins, depressions, or ponding area requirements listed in Section 3.2.1 above.

3.2.4. The presumption of the existence of a Vernal Pool, where there is a closed basin or depression meeting the definition contained in these Regulations, may be overcome with the presentation of a preponderance of credible evidence to the Commission that, in the judgment of the Commission, demonstrates the basin, depression, or ponding area does not provide and cannot provide Vernal Pool wildlife habitat functions.

3.2.5. For the purposes of overcoming the presumption of the existence of a Vernal Pool, the following criteria must be met (3.2.5.1-3.2.5.5):

3.2.5.1. evidence that the basin, depression, or ponding area does not hold water for at least two continuous months in three out of five consecutive years;

3.2.5.2. evidence that Vernal Pool species do not breed or have not bred in the basin, depression, or ponding area through a minimum of one spring breeding season for the purpose of documenting the occurrence of breeding activity or lack of breeding activity of obligate Vernal Pool species;

3.2.5.3. evidence that the basin, depression, or ponding area could not be a viable breeding site for Vernal Pool species because of incompatible physical, chemical, biological, or other persistent conditions at the site in most years, that is three out of five consecutive years. Such evidence may include, without limitation, several months of pH and dissolved oxygen measurements yielding values incompatible with amphibian or reptile breeding.

3.2.5.4. Vernal Pools may be found at various locations throughout the 100-year floodplain, the pool itself generally formed by meander scars, or sloughs left after water channels have changed course. These pools are essential breeding sites for certain amphibians which require isolated areas that are generally flooded for at least two continuous months in the spring and/or summer and are free from fish predators. Most of these amphibians remain near the breeding pool during the remainder of their lifecycle. Many reptiles, birds and mammals also feed in these areas.

3.2.5.5. Failure to find evidence of breeding must be tied explicitly to those periods during which the evidence is most likely to be available. Accordingly, the Commission shall require that the evidence be collected only at the appropriate time and for a minimum of one spring breeding season. In instances of unusually dry spring breeding seasons, the Commission may require two spring breeding seasons. The Commission may require site visits as necessary to confirm the evidence presented.

3.3. Presumptions

3.3.1. The Commission shall presume that protection of a Vernal Pool and its AURA are significant to the Values. This presumption of significance may be rebutted upon a showing of a preponderance of credible evidence that the basin or depression does not provide essential habitat functions or that the Vernal Pool does not play a role in the protection of the Values.
3.3.2. The Commission shall regulate all Vernal Pools under these Regulations regardless of the status of certification of such Vernal Pools by NHESP.
3.3.3. Vernal Pools are highly likely to be significant to wildlife, wildlife habitat, to groundwater supply, and to flood control.
3.3.4. The AURA of Vernal Pools is likely to be significant to the protection and maintenance of Vernal Pools, and therefore, to the protection of the Bylaw Values.

3.4. Performance Standards

3.4.1. No activity or work that will result in altering the Vernal Pool or the AURA/Envelope of any Vernal Pool shall be permitted by the Commission, except upon a preponderance of credible evidence from a Competent Source showing that any proposed work and its natural and consequential cumulative impacts and effects shall have no unacceptable significant or cumulative effect upon any of the Values.
3.4.2. The Commission may require habitat connectivity within the AURA be maintained between clusters of Vernal Pools and may consider development between Vernal Pools as habitat alteration, where fragmentation will adversely impact wildlife habitat associated with Vernal Pool(s).
3.4.3. Notwithstanding the provisions above in Section 3.4.1 above, no project may be permitted which will have any adverse effect on specified habitat sites of rare species, as identified on the most recent Priority Habitat and Estimated Habitat Map of state-listed rare wetland plants as well as wildlife published by the MA NHESP.

4. Land Under Water Bodies and Waterways (under Rivers, Streams, Ponds, Pools, Reservoirs, or Lakes)

4.1. Preamble

4.1.1. Land under Water Bodies and Waterways (LUWW) is likely to be significant to the Values. LUWW is important in mitigating the negative impacts of climate change.

4.1.2. Where LUWW is composed of pervious material, such land represents a point of exchange between surface water and groundwater.

4.1.3. In some situations where LUWW is composed of concrete, asphalt, or other artificial impervious material, said land may be important for flood control and storm damage prevention.

4.1.4. The physical nature of LUWW is highly variable, ranging from deep organic soils and fine sedimentary deposits to rocks and bedrock. The organic soils and sediments play an important role in the process of detaining and removing dissolved and particulate nutrients (such as nitrogen and phosphorus) from the surface water above. They also serve as traps for toxic substances (such as heavy metal compounds).

4.1.5. LUWW, in conjunction with Banks, serves to confine floodwater within definite channel during the most frequent storms. Filling within this channel blocks flows which in turn causes backwater and overbank flooding during such storms. An alteration of LUWW that causes water to frequently spread out over a larger area at a lower depth increases the amount of property which is routinely flooded. Additionally, such alteration results in an elevation of water temperature and a decrease in habitat in the main channel, both of which are detrimental to fisheries, particularly during periods of warm weather and low flows.

4.1.6. Land under rivers, streams, and creeks composed of sand and gravel allows the circulation of cold, well-oxygenated water necessary for the survival of fish species. River, stream, and creek bottoms with a diverse structure composed of gravel, large and small boulders, and rock outcrops provide escape cover and resting areas for fish species. Such bottom type also provides areas for the production of aquatic insects essential to fisheries.

4.1.7. Land under lakes and ponds is vital to a large assortment of warm-water fish during spawning periods. Said species build nests on the lake and bottom substrates within which they shed and fertilize their eggs.

4.1.8. The plant community composition and structure, hydrologic regime, topography, soil composition, and water quality of LUWW provide important food, shelter, migratory and overwintering areas, and breeding areas for wildlife. Waterfowl and some mammals eat certain submerged rooted vegetation. Some amphibians and invertebrate species attach their eggs to such vegetation.

4.1.9. Land within one hundred (100) feet of any Bank abutting LUWW is likely to be significant to the protection and maintenance of land under a water body and therefore, to the protection of the Values which these water bodies serve to protect, while also providing climate change resilience for the water body.

4.1.10. Rare, threatened, and endangered aquatic species rely on land under water for habitat.

4.2. Definitions, Critical Characteristics, and Boundaries

4.2.1. LUWW is the land beneath any creek, river, stream (perennial or intermittent), pond, pool, reservoir, or lake. Said land may be composed of organic muck or peat, fine sediments, sand, gravel, rocks, or bedrock.

4.2.2. The physical characteristics and location of LUWW specified in the preceding Subsection 4.2.1 are critical to protecting the Values of this Bylaw and these Regulations.

4.2.3. The outer boundary of Land under Water Bodies and Waterways is the Mean Annual High Water level.

4.3. Presumptions

4.3.1. Where a project involves building within or upon, removing, filling, dredging, or altering any LUWW, the Commission shall presume that such an area is significant to the Values. This presumption is rebuttable and may be overcome upon a preponderance of credible evidence showing that the proposed work, and its natural and consequential cumulative effects, shall have no adverse effect upon any of the Bylaw Values, upon any of the LUWW functions set forth in Subsection 4.1 above and as further provided in the Performance Standards for LUWW. In the event that the presumption is deemed to have been

overcome, the Commission shall make a written determination to this effect, setting forth the grounds.

4.3.2. Land within the AURA of LUWW is likely to be significant to the protection and maintenance of the LUWW, and therefore, to the protection of the Values which the LUWW serves to protect.

4.4. Performance Standards

4.4.1. No activity, other than the maintenance of an already existing structure or Resource Area Enhancement, which will result in the building within or upon, or removing, filling, dredging, or altering of LUWW shall be permitted by the Commission, except upon a showing by a preponderance of credible evidence that any proposed work and its natural and consequential cumulative effects shall have no unacceptable significant or cumulative effect upon the Bylaw Values.

4.4.2. The Commission may allow activity on LUWW only if such activity will not impair the following:

4.4.2.1. the water-carrying capacity within the defined channel, which is provided by said land in conjunction with the Banks;

4.4.2.2. groundwater and surface water quality and quantity;

4.4.2.3. the capacity of said LUWW to provide breeding habitat, escape cover, and food for fisheries; and

4.4.2.4. the capacity of said LUWW to provide wildlife breeding habitat, escape cover, or food for wildlife.

4.4.3. No work shall be permitted which will have any unacceptable significant or cumulative effect on specified habitat sites of rare species, as identified on the most recent Priority Habitat and Estimated Habitat Map published by the MA NHESP.

4.4.4. When a project is proposed to alter greater than 10% or five thousand (5,000) square feet (whichever is less) of LUWW on a single lot, or cumulatively for multi-lot projects, the Applicant shall complete a Wildlife Habitat Evaluation as determined by procedures established under 310 CMR 10.60. Additional alterations beyond the above threshold may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures established under 310 CMR 10.60.

4.4.5. Work on a stream crossing shall be presumed to meet these Performance Standards provided the work is performed in compliance with the requirements in 310 CMR 10.56(4)(a)5.

5. Land Subject to Flooding (Bordering and Isolated)

5.1. Preamble

5.1.1. Bordering Land Subject to Flooding (BLSF) is an area which floods from a rise in a bordering waterway or water body.

5.1.2. Isolated Land Subject to Flooding (ILSF) is an isolated depression or a closed basin which serves as a ponding area for runoff or high groundwater which has risen above the ground surface.

5.1.3. BLSF and ILSF are likely to be locally significant to flood control and storm damage prevention. As such, they are important in mitigating the impacts of climate change. BLSF and ILSF provide a temporary storage area for flood water. During periods of peak runoff, flood waters are both retained (i.e., slowly released through evaporation and percolation) and detained (slowly released through surface discharge) by such areas. Over time, incremental filling of these areas by sedimentation causes increases in the extent and level of flooding by eliminating flood storage volume or by restricting flows, thereby causing increases in damage to properties and downstream Resource Areas.

5.1.4. When BLSF and ILSF are underlain by pervious material, they are likely to be significant to public or private water supply and to groundwater supply by providing a point of exchange between groundwater and surface waters. Contaminants introduced into said BLSF and ILSF may infiltrate groundwater and neighboring wells. Where these conditions occur and a mat of organic peat or muck covers the substrate of the area, said mat serves to detain and remove contaminants which might otherwise enter groundwater and neighboring wells. These areas are thus significant to the prevention of pollution.

5.1.5. Certain portions of BLSF and ILSF are likely to be significant to wildlife habitat protection. These include all areas on the ten-year floodplain or within one hundred (100) feet of the Bank or a Freshwater Wetlands (whichever is further from the Water Body or Waterway, so long as such area is contained within the 100-year floodplain), and all Vernal Pool habitat on the 100-year floodplain, except for those portions of which have been so extensively altered by human activity that their important wildlife habitat functions have been effectively eliminated (such "altered" areas include paved and graveled areas, cemeteries, playgrounds, landfills, quarries, gravel pits, buildings, lawns, gardens, roadways, and similar areas lawfully existing on November 1, 1987 and maintained as such since that time).

5.1.6. The hydrologic regime, plant community composition and structure, topography, soil composition and proximity to water bodies and BVWs of BLSF and ILSF provide important food, shelter, migratory and overwintering areas, and breeding areas for wildlife. Nutrients from flood waters, as well as the inundation of floodplain soil, create important wildlife habitat characteristics, such as richness and diversity of soil and vegetation. A great many species require or prefer habitat which is as close as possible to water and/or has moist conditions, characteristics generally present on lower floodplains. Similarly, lower floodplains, because of their proximity to water and vegetated wetlands, can provide important shelter for wildlife which needs to migrate between such areas, or between such areas and uplands. The "edge" where floodplain habitat borders vegetated wetlands or water bodies is frequently high in wildlife richness and diversity. Similar "edges" may be found elsewhere the lower floodplain, where differences in topography and frequency of flooding have created varied soil and plant community composition and structure.

5.2. Definitions, Critical Characteristics, and Boundaries

5.2.1. BLSF is an area with a low, generally flat topography, adjacent to and subject to inundation by flood waters rising from rivers, streams, ponds, reservoirs, or lakes. It extends from the Banks of said Waterways or Water Bodies. Where a Freshwater Wetland is present, BLSF may extend from the Freshwater Wetland.

5.2.2. ILSF is an isolated depression or closed basin without an inlet or an outlet. It is an area which at least once a year confines standing water to a volume of at least ¼ acre-feet and to an average depth of at least six inches. ILSF may be underlain by pervious material, which in turn may be covered by a mat of organic peat or muck.

5.2.3. The topography and location of BLSF and ILSF are critical to protecting the Values specified in Bylaw and Regulations. Where BLSF and ISLF are significant to the protection of wildlife habitat, the physical characteristics as described in 310 CMR 10.57(1)(a)(3) are critical to the protection of that Interest.

5.2.4. The boundary of BLSF is the estimated or observed maximum lateral extent of the flood water which will theoretically result or has resulted from the statistical 100-year frequency storm.

5.2.4.1. Said boundary shall be that determined by reference to the most recently available flood profile data prepared for the Town of Shutesbury within which the work is proposed under the Federal Emergency Management Agency's National Flood Insurance Program (NFIP). Said boundary, so determined, shall be presumed accurate. This presumption may be overcome only by credible evidence from a registered professional engineer or other professional competent in such matters.

5.2.4.2. Notwithstanding the foregoing, where NFIP profile data is unavailable or is determined by the Commission to be outdated, inaccurate or not reflecting current conditions, the boundary of BLSF shall be the maximum lateral extent of flood water, which has been observed or recorded by a person competent in such matters, or the Commission may require the Applicant to determine the boundary of BLSF by engineering calculations which may be:

5.2.4.2.1. based upon NOAA Atlas 14, Volume 10 (or latest version*). See definition in Article III;*

5.2.4.2.2. based upon the standard methodologies set forth in the *US Soil Conservation Service Technical Release No. 55, Urban Hydrology for Small Watersheds* (USDA Natural Resources Conservation Service, 1986) or any relevant successor; and *Section 4: Hydrology, National Engineering Handbook* (USDA NRCS, 1972) or any relevant successor; and

5.2.4.2.3. prepared by a registered professional engineer or other professional competent in such matters.

5.2.4.3. The boundary of ILSF is the perimeter of the largest observed or recorded volume of water confined in said area. In the event of a conflict of opinion regarding the extent of water confined in an ILSF, the Applicant may submit an opinion certified by a registered professional engineer, supported by engineering calculations, as to the probable extent of said water. Said calculations shall be prepared in accordance with the general requirements set forth in 310 CMR 10.57(2)(a)3.a. through c., except that the maximum extent of said water shall be based upon the total volume (rather than peak rate) of runoff from the drainage area contributing to the ILSF and shall be further based upon the assumption that there is no infiltration of said runoff into the soil within the ILSF.

5.3. Presumptions

Where a proposed activity involves removing, filling, dredging, or otherwise altering BLSF and ILSF, the Commission shall presume that such an area is significant to the protection of the Values of this Bylaw and these Regulations. This presumption is rebuttable and may be overcome only upon a preponderance of credible evidence showing that said land does not play a role in the protection of such Values. In the event that the presumption is deemed to have been overcome, the Commission shall make a written determination to this effect, setting forth its grounds.

5.4. Performance Standards

5.4.1. No activity, other than the maintenance of an already existing structure, which will result in the building within or upon, or removing, filling, dredging, or altering of BLSF or ILSF, shall be conducted without written permission of the Conservation Commission.

5.4.2. The Commission may permit activity on BLSF or ILSF provided it shall not result in the following:

5.4.2.1. flood damage due to filling which causes lateral displacement of water that would otherwise be confined within said area;

5.4.2.2. adverse effect on surface or groundwater, where said area is underlain by pervious material;

5.4.2.3. an adverse effect on the capacity of said area to prevent pollution of the groundwater, where the area is underlain by pervious material which in turn is covered by a mat of organic peat and muck;

5.4.2.4. a rise in the base flood elevation anywhere in the floodplain. This must be demonstrated through hydrologic and hydraulic analysis performed in accordance with standard engineering practice performed by a registered professional.

5.4.2.5. reduction in the ability of the land to buffer more inland areas from flooding.

5.4.3. Any such activity shall provide compensatory flood storage for all flood storage volume that will be lost at each elevation. Compensatory flood storage shall be at a 2:1 ratio, minimum, for each unit volume of flood storage lost at each one-foot elevation. Compensatory flood storage shall mean a volume not previously used for flood storage, shall have an unrestricted hydraulic connection to the same waterway or water body, and, with respect to waterways, shall be provided within the same reach of the river, stream, or creek. Work within Bordering or Isolated Land Subject to Flooding, including that work required to provide the above specified compensatory storage, shall not restrict flows that cause an increase in flood stage or velocity.

5.4.4. No work shall be performed within fifty (50) feet of BLSF or ILSF that abuts an Estimated Habitat area as designated on the most current map prepared by the Massachusetts NHESP unless the Applicant can demonstrate by a preponderance of credible evidence that the work will not have any short-term or long-term adverse effect on the Resource Area Values protected by the Bylaw.

5.4.5. When a project is proposed to alter greater than 10% or 5,000 square feet (whichever is less) BLSF on a single lot, or cumulatively for multi-lot projects, the proponent shall complete Appendix A: Simplified Wildlife Habitat Evaluation of the *Massachusetts Wildlife Habitat Protection Guidance for Inland Wetlands* (March 2006 and as it may be amended).

Depending on the information presented in Appendix A, proponents may also be required to complete Appendix B: Detailed Wildlife Habitat Evaluation.

5.4.6. Notwithstanding the above, no project may be permitted within BLSF or ILSF where such work would adversely affect a Vernal Pool or its AURA, unless the project meets the Performance Standards in Section 3.4.

6. 100-Foot Adjacent Upland Resource Area (AURA)

6.1. Preamble

6.1.1. The AURA is presumed significant to wildlife, plant, or wildlife habitat, water quality, public and private water supply, groundwater supply, flood control, storm damage prevention, prevention of pollution, erosion control and sedimentation control, natural character and recreation, protection of surrounding land and other homes or buildings and mitigation of potential climate change impacts.

6.1.2. Trees in the AURA provide additional important functions not provided by any other plant type. Trees provide shade to moderate water temperatures and levels of dissolved oxygen and water flow. Trees also mitigate heat island effects and sequester carbon, reducing greenhouse gases and promoting climate change resilience**.** They serve as windbreaks to moderate wind stress and shear during storms, and provide nesting, roosting and perching areas for birds and other wildlife. A buffer strip of mature trees can absorb up to 14 times more water than an equivalent area of grass and the organic litter on a forest floor can remove 50-100 percent of sediments in runoff. The transitional assemblage of trees, shrubs, and ground cover (containing both wetland and upland elements) frequently found in AURAs has been found significant to the support of a greater number of native and specialist wildlife species in the interior of other Resource Areas, which they border.

6.1.3. Lands within the AURA are best left undisturbed or in a natural or vegetated state. These lands play a critical role in protecting the important functions provided by wetlands, waterways, and water bodies. Undisturbed AURAs:

6.1.3.1. reduce runoff velocity and filter pollutants, which mitigate erosion and nutrient and other pollutant transport to wetland resources;

6.1.3.2. enhance the capacity of Resource Areas to adapt and provide resilience to challenges presented by climate change such as increased flooding and drought events; and

6.1.3.3. provide core habitat for wildlife that also utilize wetlands, waterways, and water bodies.

6.1.3.3.1. Numerous scientific studies have established that many species of wildlife depend on significantly more than one hundred (100) feet of adjacent upland habitat. As such, the AURA is essential to biodiversity.

6.1.3.3.2. AURA vegetation, particularly shrubs and trees, protect wetland-associated wildlife and provide necessary shade to adjacent wetlands, waters, and wildlife microclimates.

6.1.3.3.3. Numerous scientific studies document the critical importance of the adjacent upland regions for wildlife habitat. In Massachusetts, 100% of wetland-dependent

mammal species use upland habitats, more than half of which use upland areas beyond two hundred (200) feet of the wetland edge. These include beaver, otters, muskrats, minks, and shrews. Non-water dependent mammals use upland areas as travel corridors to wetlands, including racoons, moose, bears, and deer. Water-dependent reptiles, amphibians, and birds also depend upon upland habitat. Scientific studies have found that as much as 76% of Massachusetts Freshwater Wetlands-dependent species require upland habitat.

6.1.3.3.4. The AURA and riparian corridors protect fish and shellfish by removing water-borne pollutants, controlling pH levels and temperature, and removing harmful sediments.

6.1.4. Intact, vegetated AURAs protect adjacent Resource Areas and associated Values as well as contribute to ecological climate resilience. AURAs become even more important as our climate becomes more variable and wetland boundaries shift up and down gradient, depending on shifting precipitation, drought, and hydrologic conditions. During extended dry periods and drought, the wetland boundary may shift downgradient due to replacement of wetland herbaceous species with upland herbaceous species. However, this same wetland may shift upgradient in response to extended heavy precipitation and flooding events. Protection of AURAs ensures that the functional wetland can shift on the landscape in this manner on short-term time scales without loss of jurisdictional area and functional capacity over the long term. AURAs also provide important shading of adjacent Resource Areas, buffering them from increased heat and drought. They also act as a buffer between intact Wetland Resource Areas and invasive species, which increase as the climate warms.

6.1.5. There is overwhelming scientific consensus that significant physical, chemical, or biological alterations to AURAs will have negative physical, chemical, or biological impacts on associated or adjacent wetland Resource Areas such as banks, creeks, streams, rivers, ponds, lakes, and wetlands. AURAs are important to the protection of these resources because activities undertaken near wetlands and other Resource Areas protected by the Bylaw have a high likelihood of adverse impact upon those areas, either immediately, as a consequence of construction, or over time, as a consequence of daily operation or existence of the activities. These adverse impacts from construction activities, impervious surfaces, and use can include, without limitation, erosion, siltation, loss of groundwater recharge, loss of flood control or storm damage prevention, poor water quality, harm to wildlife and wildlife habitat, and loss of resource resiliency for potential impacts of climate change. The ability of the AURA to protect a wetland resource, and to provide habitat, increases with buffer width and continuity.

6.1.6. Buffer effectiveness increases with buffer width and continuity. Generally, vegetated buffers of less than fifty (50) feet in width within the AURA are ineffective in protecting adjacent wetlands or providing wildlife habitat functions. Vegetated buffers wider than fifty (50) feet are necessary to provide wildlife habitat for common and sensitive species and to protect adjacent Resource Areas from continuing human activities and the adverse effects of climate change that can cause adverse impacts to water quality.

6.1.7. The effectiveness of buffers in removing pollutants is dependent upon slope, soil condition, pollutant type, flow patterns, vegetation, exposure to sunlight, width, and upland land use. Steep slopes increase the velocity at which water travels through a buffer, thereby

decreasing the amount of time that rainwater can filter through soil and vegetation. For removal of most pollutants, flat slopes with gradients of less than 5% are desirable. Increasing buffer width is desirable when slopes are steeper than 15%.

6.1.8. Development activities within the AURA can cause significant adverse impacts during and after construction. Construction impacts may include erosion and sedimentation, improper debris disposal, removal of vegetation, soil degradation, and noise. Post-construction impacts may be similar but may also include disruption of wildlife habitat and corridors, stormwater pollution from impervious surfaces and landscaped areas in which herbicides, pesticides, fertilizers, and fungicides are used, nitrogen and phosphorus loading from septic systems. Roadways and driveways within the AURA can impede movement of animals and can contribute to increased mortality.

6.1.9. Lawn areas recharge groundwater less efficiently than areas that are naturally vegetated with trees shrubs, and herbaceous plants. Lawns require more active management than other types of vegetated buffer strips which provide greater protection of wetlands from human disturbance and adjacent land uses.

6.1.10. Certain Resource Areas, such as Vernal Pools and stream with cold-water fisheries, Riverfront Area, Estimated and Priority Habitats of Rare Species, as well as core habitats supporting uncommon natural areas, are highly sensitive and may need more protection from human impacts to reduce the risk of disturbance.

6.2. Definitions and Critical Characteristics

The AURA is the Resource Area subject to protection under the Bylaw, located adjacent to a Resource Area specified in Sections 2A through 2C of the Bylaw (see also Article I, Sections 1.6.1 through 1.6.3 of these Regulations) and is the land within one hundred (100) feet, measured horizontally, of any of the aforesaid Resource Areas.

6.3. Presumptions

6.3.1. The Commission shall presume that the AURA is an integral part of a wetland Resource Area system and is therefore significant to the Bylaw Values.

6.3.2. Work and activity in the AURA shall be avoided and discouraged, and Reasonable Options pursued that achieve the project purpose.

6.3.3. Undeveloped, undisturbed, and naturally vegetated areas within the AURA are lands determined by the Commission to be of a predominantly natural and unaltered character.

6.3.4. Previously developed, disturbed, and landscaped areas within the AURA are lands determined by the Commission to be of a legally modified nature which were altered before the adoption of these Regulations or under an Order of Conditions or other permit from the Commission. Previously developed lands are those that are degraded with impervious surfaces from structures or pavement, an absence of topsoil, junkyards, abandoned dumping grounds, and/or a lack of a naturally vegetated condition (e.g., lawn, etc.).

6.3.5. Activities the Commission considers to be alterations of the AURA include, without limitation, clearing or cutting vegetation, landscaping, grading, filling, excavating, constructing driveways, roadways and structures. Structures include, but are not limited to, commercial and industrial buildings, single family houses, multi-family dwellings, porches, decks, additions, sheds, outbuildings, pools, docks, energy generation and storage systems,

septic systems and any of their components, stormwater management systems, underground storage tanks, roadways, driveways, and retaining walls.

6.3.6. Impervious surfaces within the AURA are presumed to result in increased stormwater runoff to Resource Areas and degradation of water quality as well as wildlife and plant habitat. Impervious surface coverage that exceeds ten (10) percent of a watershed area is presumed to result in degradation of the water quality of wetlands and waterways. Impervious surfaces exceeding twenty-five (25) percent of watershed areas is presumed to result in severe water quality and ecosystem impairments.

6.3.7. The full 100-foot AURA of Vernal Pools and the inner fifty (50) feet of the AURA of all other Resource Areas listed in Article I Sections 1.6.1 through 1.6.3 above are presumed to be significant for the Values of the Bylaw. This is a rebuttable presumption by the presentation of a preponderance of credible evidence by a Competent Source. See, e.g., Section 6.4.12 below.

6.4. Performance Standards

6.4.1. Preservation and restoration of the AURA is directly related to the protection of the Values. Therefore, the Commission will require that all new structures and activities are located as far from wetland Resource Areas as practicable.

6.4.2. Any proposed work within the AURA of a Resource Area shall not result in any impairment of the Values and functions of the Resource Area nor shall it result in any impairment in the Values and functions of the AURA.

6.4.3. The 100-foot AURA of a Vernal Pool is considered essential Vernal Pool habitat and is therefore a “No Disturb” Protection Area. No activities or work, other than passive passage and Resource Area enhancements are permitted.

6.4.4. The first inner fifty (50) feet of the 100-foot AURA (measured horizontally from a Resource Area specified in Article I) of any wetland Resource Area listed in Article I, Subsections 1.6.1. through 1.6.3., except for the AURA of Vernal Pools (see Subsection 6.4.5. above), is considered a "No Disturb" Protection Area. No activities or work, other than passive passage, Resource Area enhancement, and construction of Title 5 septic systems as set forth in Article III, Section 10 above, are permitted within the first fifty (50) feet of the AURA for these Resource Areas.

6.4.6. The aforesaid "No Disturb" restrictions in the AURA shall not apply to any structure existing before the adoption of these Regulations. However, removed and replaced structures must comply with the Regulations in effect at the time of the reconstruction. For pre-existing structures within the inner first fifty (50) feet of the AURA, which are not being removed but for which the footprint is changing, any increase in footprint area must occur as far from the wetland Resource Areas as practicable.

6.4.7. When an Applicant proposes a project with impact to the AURA, the Commission may require mitigation involving restoration, including but not limited to:

6.4.7.1. revegetation of areas within the AURA with native species beginning with areas closest to the Resource Areas; or
6.4.7.2. improvements to the health and natural function of remaining undisturbed areas of the AURA, such as removing invasive species.

6.4.8. Impervious surface.

6.4.8.1. The total area of impervious surface within the AURA shall not increase over existing total area unless the Commission determines, based on sufficient proposed mitigation, that there is no permanent, significant impact on Resource Area Values.

6.4.8.2. Impervious surfaces shall not intrude farther into the AURA than pre-project conditions unless the Commission determines that the total area of impervious surface is significantly decreased, or other sufficient mitigation is provided that serves to protect the Resource Area Values. Impervious surface shall be kept as close as possible to the outer (upland) boundary of the AURA.

6.4.9. Work in the AURA shall not adversely affect the hydrology of the site including runoff rates, volume, water quality, flood storage capacity, or flow paths.

6.4.10. For permitted projects in the AURA, landowners shall follow 330 CMR 31.00 Plant Nutrient Application Requirements for Agricultural Land and Land Not Used for Agricultural Purposes.

6.4.11. The Commission may allow temporary, limited, or permanent disturbance in the AURA as appropriate and consistent with this Section if the Applicant proves that there are no other Reasonable Options to the project with materially less adverse and cumulative effects on the Values protected by this Bylaw and convinces the Commission by a preponderance of credible evidence from a Competent Source that the area or part of it may be altered without harm to the Values taking into consideration the characteristics of the Resource Area, including but not limited to the following: slope, soil characteristics, drainage patterns, extent and type of existing native vegetation, extent and type of invasive vegetation, amount of impervious surface, wildlife and wildlife habitat, intensity and extent of use, and intensity and extent of adjacent and nearby uses.

6.4.12. Some small-scale activities in the AURA, which are deemed not likely to have a significant or cumulative effect on the Values, may be reviewed by the Commission provided that the other provisions of these Regulations are satisfied. Requirements for these proposed activities are addressed in Article V, Small Project Permits.

7. Rivers, Streams, Brooks, and Creeks

7.1. Preamble

7.1.1. Streams and Rivers, and their adjacent upland areas, are likely to be significant to protect the private or public water supply; to protect groundwater; to provide flood control; to prevent storm damage; to prevent pollution; to protect land containing shellfish; to protect wildlife habitat; and to protect fisheries. Land adjacent to rivers and streams can protect the natural integrity of these water bodies. The presence of natural vegetation within the adjacent upland areas of rivers and streams is critical to sustaining rivers as ecosystems and providing these public Values.

7.1.2. The surface water interaction with groundwater significantly influences the ecosystem of a river or stream. The dynamic relationship between surface and groundwater within the hyporheic zone sustains communities of aquatic organisms which regulate the flux of nutrients, biomass and the productivity of organisms including fish within the stream itself.

The hyporheic zone is the region of sediment and porous space beneath and alongside a stream bed, where there is mixing of shallow groundwater and surface water.

The hyporheic zone extends to greater distances horizontally from the channel in large, higher order streams with alluvial floodplains, but the interaction within this zone is important in smaller streams as well.

7.1.3. Intermittent streams are important for storm damage prevention, flood control, ground water protection, protection of fisheries and wildlife habitat values. During spring, summer, and fall these streams disperse snow melt and/or stormwater runoff across the landscape thereby preventing dangerous volumes and flows from spilling over roadways and property. This broad dispersal also allows for larger volumes of water to infiltrate into the ground, recharging groundwater supplies.

7.1.4. Intermittent streams are an essential source of food and water for wildlife and are often the only source of water in higher elevation areas of town. The moist soils that border intermittent streams are significantly richer in herbs and flowering/fruiting plants - the base trophic level of food – than surrounding upland areas.

7.1.5. During all seasons, but especially in winter and spring, intermittent streams act as essential corridors for animal movement when food is scarce. Some animals, such as pickerel frogs and eastern spotted newts, rely heavily on intermittent streams for movement.

7.1.6. For the aforesaid reasons, the adjacent upland areas surrounding intermittent streams are heavily used by wildlife for living space, breeding, feeding, migrating, dispersal, and security. Accordingly, the Bylaw protects intermittent streams of all forms and their AURA.

7.2. Definition, Critical Characteristics, and Boundary

7.2.1. River (perennial Stream)

7.2.1.1. A river (perennial Stream) is any natural or human-made flowing body of water that empties to any ocean, pond, reservoir, wetland, or other perennial stream and which flows throughout the year. Rivers include perennial streams (see 310 CMR 10.04: Stream). A river or perennial stream is characterized by horizontal zonation, as opposed to the vertical stratification typically associated with lakes, ponds, reservoirs, and embayments. Occasionally, a body of running water which does not flow throughout the year may be perennial because the dryness is due to drought, impoundment, or other unusual or unnatural circumstances.

7.2.1.2. Intermittent streams are not rivers as defined herein because surface water does not flow within them throughout the year. When surface water is not flowing within an intermittent stream, the surface water may remain in isolated pools or may be absent. When surface water is present in contiguous and connected pool/riffle systems, it shall be determined to be flowing. Rivers begin at the point an intermittent stream becomes perennial or at the point a perennial stream flows from a spring, pond, reservoir, or lake. Downstream of the first point of perennial flow, a stream normally remains a river except where interrupted by a lake, pond, or reservoir. Upstream of the first point of perennial flow, a stream is normally intermittent.

7.2.1.3. Flowing watercourses shall be considered to be perennial streams unless a preponderance of credible evidence deemed acceptable by the Commission rebutting this presumption is presented.

7.2.1.4. Rivers include perennial streams that cease to flow during periods of extended drought. Periods of extended drought shall be those periods, in those specifically identified geographic locations, determined to be at the "Advisory" or more severe drought level by the Massachusetts Drought Management Task Force, as established by the Executive Office of Environmental Affairs and the Massachusetts Emergency Management Agency in 2001, in accordance with the Massachusetts Drought Management Plan.

7.2.1.5. Rivers and streams that are perennial under natural conditions but are significantly affected by drawdown from withdrawals for water supply wells, direct withdrawals, impoundments, or other human-made flow reductions or diversions shall be considered perennial.

7.2.1.6. Where rivers flow through lakes or ponds, the riverfront area stops at the inlet and begins again at the outlet. A water body identified as a lake, pond or reservoir on the current USGS map or more recent map provided by MassDEP, is a lake, pond, or reservoir unless the Commission determines that the water body has primarily riverine characteristics. When a water body is not identified as a lake, pond, or reservoir on the current USGS map or more recent map provided by MassDEP, the water body is a river if it has primarily riverine characteristics. Riverine characteristics may include, but are not limited to, unidirectional flow that can be visually observed or measured in the field. Horizontal zonation will be present as opposed to vertical stratification typically found in lakes and ponds.

7.2.1.7. Where a river (perennial stream) flows through a culvert, it does not lose its classification as a river unless it flows through a culvert of more than 200 feet in length.

7.2.2. Stream (intermittent stream)

7.2.2.1. An Intermittent Stream is that segment of a flowing watercourse, natural or manmade, that regularly experiences naturally occurring, sporadic flow interruptions such that it does not have a continuous sheet of surface water flowing for at least five (5) consecutive days or more in any consecutive 12-month period. See also definition in Article III.

7.2.2.2. An AURA exists for an Intermittent Stream, but there is no Riverfront Area associated with them.

7.2.2.3. Intermittent streams exhibit a longitudinal gradient of hydrology, from ephemeral channels that flow only in response to storms, through intermittent sections that flow seasonally until the groundwater table falls below the channel and are dry the rest of the year, and interstitial reaches that flow seasonally and retain pools connected by subsurface flow during the summer, to the downgradient perennial stream.

7.2.2.4. For any Intermittent Stream protected under the Bylaw, the continuity and flow from the point at which a stream loses its connection with the earth's surface (inlet) to where it re-emerges into a surface channel (outlet) shall be determined during periods of flow using tracer dye testing, or other methods approved by the Commission. An agent or

member of the Commission shall witness flow testing for continuity. For a road crossing or any other construction activity proposed between the Intermittent Stream inlet and outlet, confirmatory tests must be performed to establish the intermittent centerline of the stream. Subsurface flow may not be interrupted or reduced by any improvements. The Applicant for a permit shall provide the Commission with hydraulic calculations to affirm that any work proposed over or within the subsurface portion of the stream shall not impact the stream continuity or flow capacity.

7.3. Presumptions

Where a proposed activity involves removing, filling, dredging, or altering a stream (perennial or intermittent) or river, the Commission shall presume that such area is significant to the Values and the adjacent Resource Areas. This presumption is rebuttable and may be overcome upon a preponderance of evidence from a Competent Source showing that the Bank and LUWW do not play a role in the protection of said Values. If the presumption is deemed to have been overcome, the Commission shall make a written determination to this effect, setting forth its grounds.

7.4. Performance Standards

7.4.1. The Commission shall apply the Performance Standards for Bank and LUWW in assessing a proposed project that would alter either a perennial or intermittent stream.

7.4.2. A river or perennial stream has an inner 100-foot and an outer 1 00-foot riparian zone that is protected as Riverfront Area. See Section 8 below for Riverfront Area Performance Standards for perennial streams and rivers.

7.4.3. Requests for Reclassification of Perennial Streams

7.4.3.1. The Commission may consider finding a stream intermittent when an Applicant has filed an RDA or other type of application and has provided documentation meeting the provisions of 310 CMR 10.58(2)(a)1.d., with documentation at regular intervals and at the start and end of the portion of the stream under consideration. A Determination or Finding of the stream as intermittent is only valid for three years.

7.4.3.2. In addition to the information required under 301 CMR 10.58(2)(a)1.d., the following evidence must be submitted by Applicants requesting a reclassification of a stream as shown on current USGS topographical maps:

7.4.3.2.1. Watershed (i.e., drainage basin) size at the point of the stream for which reclassification is being requested. A watershed greater than one square mile shall be a strong indicator of a perennial stream or river. A watershed greater than 1/square mile with a stratified drift component of 75% or greater shall be a strong indicator of a perennial stream or river.

7.4.3.2.2. Rainfall data based on NOAA Atlas 14, or as amended

7.4.3.2.3. Current Commonwealth of Massachusetts-declared drought conditions for the specific area in question.

7.4.3.2.4. Flowing water at the site in question shall be a strong indicator of perennial status. Lack of flowing water during unusually dry conditions (as determined by the Commission based on available rainfall data and observation of below-normal water level conditions) shall prohibit stream reclassification from perennial to intermittent

until normal hydrological conditions exist. Proof of a dry stream bed must be present five (5) consecutive days (i.e., a minimum of 120 consecutive hours). Proof must be documented with field notes and dated, signed photographs. Any information provided must be provided by a Competent Source (as determined by the Commission). A Competent Source is typically classified as a professional in the field with an associated master's degree or a bachelor's degree and two to five years of documented field experience.

7.4.3.3. Impoundments created by beavers or human activity or evidence of withdrawal of water of any kind upstream or at the point in question shall be cause to deny a change from perennial to intermittent unless and until the change has been corrected and normal flow conditions have resumed. In the instance of beaver activity, the Applicant should note that beavers typically only build dams in response to running water, thus indicating a stream's perennial nature.

8. Riverfront Area

8.1. Preamble

8.1.1. Riverfront Area is likely to be significant to protect the private or public water supply; to protect groundwater; to provide flood control; to prevent storm damage; to prevent pollution; to protect land containing shellfish; to protect wildlife habitat; and to protect the fisheries. Land adjacent to rivers and streams can protect the natural integrity of these water bodies. The presence of natural vegetation within the Riverfront Area is critical to sustaining rivers as ecosystems and providing these public Values.

8.1.2. Riverfront Area can prevent water quality degradation by filtering sediments, toxic substances (such as heavy metals), and nutrients (such as phosphorus and nitrogen) from stormwater, nonpoint pollution sources, and the river itself. Sediments are trapped by vegetation before reaching the river. Nutrients and toxic substances may be detained in plant root systems or broken down by soil bacteria.

8.1.3. Riverfront Areas can trap and remove disease-causing bacteria that otherwise would reach rivers and coastal estuaries where said bacteria can contaminate shellfish beds and limit safe human consumption. Natural vegetation within Riverfront Areas also maintains water quality for fish and wildlife. Where rivers serve as water supplies or provide recharge to wells, Riverfront Areas can be important to the maintenance of drinking water quality and quantity. Land along rivers in its natural state with a high infiltration capacity increases the yield of a water supply well. When Riverfront Areas lack the capacity to filter pollutants, contaminants can reach human populations served by wells near rivers or by direct river intakes.

8.1.4. The capacity of Riverfront Areas to filter pollutants is equally critical to surface water supplies, reducing or eliminating the need for additional treatment. In the watershed, mature vegetation within Riverfront Areas provides shade to moderate water temperatures and slow algal growth, which can produce odors and taste problems in drinking water.

8.1.5. Within the Riverfront Areas, surface water interaction with groundwater significantly influences the stream ecosystem. The dynamic relationship between surface and groundwater within the hyporheic zone sustains communities of aquatic organisms which regulate the flux of nutrients, biomass and the productivity of organisms including fish. The

hyporheic zone extends to greater distances horizontally from the channel in large, higher order streams with alluvial floodplains. However, the interaction within this zone is also important in smaller streams. By providing recharge and retaining natural flood storage, as well as by slowing surface water runoff, Riverfront Areas can mitigate flooding and damage from storms.

8.1.6. By providing recharge and retaining natural flood storage, as well as by slowing surface water runoff, Riverfront Areas can mitigate flooding and damage from storms. The root systems of riverfront vegetation keep soil porous, increasing infiltration capacity and preventing erosion. Vegetation also removes excess water through evaporation and transpiration. This removal of water from the soil allows for more infiltration when flooding occurs. Increases in storage of floodwaters can decrease peak discharges and reduce storm damage. Vegetated riverfronts also dissipate the energy of storm flows, reducing damage to public and private property.

8.1.7. Riverfront Areas are critical to maintaining thriving fisheries. Maintaining vegetation along rivers provides shading, promotes fish cover, increases food and oxygen availability, decreases sedimentation, and provides spawning habitat. Maintenance of water temperatures and depths is critical to many important fish species. When groundwater recharges surface water flows, loss of recharge as a result of impervious surfaces within the riverfront area may aggravate low flow conditions and increase water temperatures. In some cases, summer stream flows are maintained almost exclusively from groundwater recharge. Small streams are most readily impacted by removal of trees and other vegetation along the shore.

8.1.8. Riverfront Areas are important wildlife habitat, providing food, shelter, breeding, nesting, migratory, and overwintering areas for wildlife and for rare species where they occur. Even some predominantly upland species use and may be seasonally dependent on Riverfront Areas. Riverfront Areas promote biological diversity by providing habitats for an unusually wide variety of upland and wetland species, including several species of egrets and herons, Bald Eagles, Osprey, and Belted Kingfishers. Large dead trees provide nesting sites for bird species that typically use the same nest from year to year. Sandy areas along rivers may serve as nesting sites for turtles and water snakes. Riverfront Areas provide food for species such as wood turtles which feed and nest in uplands but use rivers as resting and overwintering areas. Riverfront Areas provide corridors for the migration of wildlife for feeding or breeding. Loss of this connective function, from activities that create barriers to wildlife movement within riverfront areas, results in habitat fragmentation and causes declines in wildlife populations. Wildlife must also be able to move across Riverfront Areas, between uplands and the river.

8.1.9. Vernal Pools are frequently found within depressions in Riverfront Areas. These pools are essential breeding sites for certain amphibians and obligate and facultative Vernal Pool species of plants and animals which require isolated, seasonally wet areas without predator fish. Some Vernal Pool species, particularly amphibians, require areas of undisturbed woodlands as upland habitat during the non-breeding seasons. Some species require continuous woody vegetation between woodland habitat and the breeding pools. Depending on the species, during non-breeding seasons these amphibians may remain near the pools or travel one-fourth mile or more from the pools. Reptiles, especially turtles, often require areas along rivers to lay their eggs. Since amphibians and reptiles are less mobile than mammals and birds, maintaining integrity of their habitat is critical.

8.2. Definitions, Critical Characteristics, Boundary

8.2.1. A Riverfront Area is the area of land between a river or perennial stream's Mean Annual High Water Line (MAHWL) and a parallel line, located 200 feet away, that is measured horizontally outward from the stream's MAHWL. The Riverfront Area may include or overlap other Resource Areas, including the 100-foot AURA, but Riverfront Area does not have its own AURA.

8.2.2. The MAHWL of a river is the line that is apparent from visible markings or changes in the character of soils or vegetation due to the prolonged presence of water and that distinguishes between predominantly aquatic and predominantly terrestrial land. Field indicators of bankfull conditions shall be used to determine the MAHWL. Bankfull field indicators include but are not limited to: changes in slope, changes in vegetation, stain lines, top of pointbars, changes in bank materials, or bank undercuts. In most rivers, the first observable break in slope is coincident with bankfull conditions and the MAHWL. In some river reaches, the MAHWL is represented by bankfull field indicators that occur above the first observable break in slope, or if no observable break in slope exists, by other bankfull field indicators. These river reaches are characterized by at least two of the following features: low gradient, meanders, oxbows, histosols, a low-flow channel, or poorly defined or nonexistent banks.

8.2.3. Where a river runs through a culvert more than 200 feet in length, the Riverfront Area stops at a perpendicular line at the upstream end of the culvert and resumes at the downstream end. When a river contains islands, the Riverfront Area extends landward into the island from and parallel to the MAHWL.

8.2.4. The physical characteristics of a Riverfront Area as described in 310 CMR 10.58(2)(a) are critical to the protection of the interests specified in 310 CMR 10.58(1).

8.2.5. The Inner Riparian Zone is the area from 0 – 100 feet from the river's MAHWL, and the Outer Riparian Zone is the area from 100 –200 feet from the river's MAHWL.

8.3. Presumptions

8.3.1. Where a proposed activity involves work within the Riverfront Area, the Commission shall presume that the area is significant to protect the Values of the Bylaw. The presumption is rebuttable and may be overcome by a clear showing that the Riverfront Area does not play a role in the protection of one or more of these interests. In the event that the presumption is deemed to have been overcome as to the protection of all the Values, the Commission shall make a written determination to this effect, setting forth its grounds. Where the Applicant provides credible information that the Riverfront Area at the site of the activity does not play a role in the protection of the Values, the Commission may determine that the presumption for that Value has been rebutted and the presumption of significance is partially overcome.

8.4. Performance Standards

8.4.1. No activity or work, other than the maintenance of an already existing structure, which will result in the building within or upon, removing, filling, or altering of Riverfront Area, shall be permitted by the Commission, except upon a clear showing by a preponderance of credible evidence that any proposed work and its natural and consequential cumulative impacts and effects shall have no adverse effect upon any of the Bylaw Values.

8.4.2. For proposed activity and work within the Riverfront Area that is allowed under the aforesaid Subsection 8.4.1, the activity or work shall comply with the following performance standards:

8.4.2.1. Other Bylaw Resource Areas: The work must meet the Performance Standards for all other Resource Areas located within the Riverfront Area, including the Performance Standards for the 100-foot AURA, which overlaps with the Inner Riparian Zone.

8.4.2.2. Any work or activity within the first one hundred (100) horizontal linear feet, or the Inner Riparian Zone, of a river or perennial stream shall be discouraged and Reasonable Options considered. Redevelopment within the Inner Riparian Zone shall provide an increase in protection of the Values associated with the Inner Riparian Zone.

8.4.2.3. Alternatives Analysis: Unless a redevelopment project under Subsection 8.4.2.7. below, the Applicant must show, by a preponderance of the credible evidence that: (1) there is no practicable and substantially equivalent economic alternative to the proposed project with less adverse effects on the Bylaw Values, and (2) the project, including proposed mitigation measures, will have no significant or cumulative adverse effect on the Values.

8.4.2.3.1. The Conservation Commission shall regard as practicable an alternative that is reasonably available and capable of being done after taking into consideration the proposed property use, overall project purposes, logistics, existing technology, costs of the alternatives, and overall project cost.

8.4.2.3.2. The scope of alternatives and the evaluation of alternatives are defined in 310 CMR 10.58(5).

8.4.2.3.3. Notwithstanding this required Alternatives Analysis, the Applicant must still meet the criteria for determining no significant or cumulative effect upon the Bylaw Values as specified in the aforesaid Subsection 8.3.

8.4.2.4. When a project is proposed to alter more than 5,000 square feet of undeveloped Riverfront Area, the proponent shall complete Appendix A: Simplified Wildlife Habitat Evaluation of the *Massachusetts Wildlife Habitat Protection Guidance for Inland Wetlands* (March 2006 and as it may be amended). Projects proposing to alter more than 5,000 square feet of undeveloped Riverfront Area within mapped habitat of potential regional or statewide importance require the completion of Appendix B: Detailed Wildlife Habitat Evaluation and certification that the project has been designed so that there is no adverse effect on wildlife habitat.

8.4.2.5. The Commission may require that the Applicant maintain a strip of continuous, undisturbed vegetative cover within the 200-foot Riverfront Area unless the Applicant overcomes the presumption of significance by a preponderance of the credible evidence that the area or a portion of it may be disturbed without harm to the Bylaw Values.

8.4.2.6. Notwithstanding the provisions in above, no project may be permitted which will have any adverse effect on specified habitat sites of rare species, as identified on the most recent Priority Habitat and Estimated Habitat Map of state-listed

rare wetland plants as well as wildlife published by the MA Division of Fisheries and Wildlife NHESP.

8.4.2.7. Performance Standards for Redevelopment. Where the proposed project involves redevelopment of a previously altered Riverfront Area, then the criteria found in 310 CMR 10.58(5), shall apply in lieu of the alternatives analysis Performance Standard stated in the aforesaid Subsection 8.4.2.3.

9. Vegetation Removal and Replacement

8.1. Preamble

8.1.1. Vegetation in a Resource Area is significant for wildlife, wildlife habitat and water quality. In addition, vegetation controls flood and storm damage, thereby mitigating potential impacts of climate change. Vegetation provides food, shelter, socialization, shade, sound control, water detention, sediment control, non-point source pollution filtration, Bank stabilization, biodiversity, pollutant uptake, evapotranspiration of water, aesthetics, and atmospheric purification. Trees contribute to cooler air and water. In addition, plant size ordinarily is proportional to habitat value, i.e., large trees are of greatest habitat value, followed by bushes, and then ground cover. Thus, an adequate quantity of vegetation must be maintained so that Resource Areas can function to protect the Values.

8.1.2. Trees have significant ecological value in that they provide oxygen, shade, moisture transpiration in the air benefitting lower story plant life, habitat for wildlife, soil stabilization, carbon dioxide absorption and erosion control. Dead trees provide habitat for a variety of nesting animals and contribute organic nutrients for soil.

8.1.3. The Commission strongly encourages retaining native trees and vegetation in their natural state within the AURA and Riverfront Area. Trees should be retained along and around the Resource Area as much as possible.

8.1.4. The Commission recognizes that a diseased, dying, dead or otherwise compromised tree can pose a danger to persons and property prompting their removal. Notwithstanding, the AURA and Riverfront Area provide a barrier between developed areas and Resource Areas such as wetlands, ponds, streams, and rivers which must be maintained in as close to their natural state as is reasonable to ensure the health and viability of the wetland Resource Areas.

8.2. Definitions

8.2.1. Compromised trees are trees that are either deemed to be a threat to a dwelling, structure, or a public facility, or are deemed to be a risk due to their state of health, persistent insect activity, or having been infected with insects, fungi, or diseases that pose a threat of spreading to the surrounding area.

8.2.2. “Non-Compromised Healthy Trees” are trees that are able to maintain a crown of leaves or needles that pose no threat to structures. They produce new growth yearly on both their trunk and branches. Non-Compromised Healthy Trees, as defined here, are those deemed not to be a threat to a dwelling, structure, or public facility.

8.2.3. Extensive pruning is defined as removal of 20% or more of limbs or growth of a native tree.

8.3. Performance Standards

8.3.1. The Commission shall not allow the net loss of trees six (6) inches or greater DBH within areas under its jurisdiction. At its discretion, the Commission may grant a waiver to this requirement, however, the following replacements shall be required as mitigation:

Area of Native Tree Removal	**Mitigation Replacement Required***
Within outer 50-foot AURA or any part of Riverfront Area	1-to-1 tree replacement or 4 shrubs replaced for 1 tree removed
Within inner 50-foot AURA	2-to-1 tree replacement or 6 shrubs replaced for 1 tree removed
Within any other Resource Area	3-to-1 tree replacement

*Replacement trees shall be:

1) Native to Massachusetts, or a species approved by the Conservation Commission;

2) 1-1/2 to 2 inches minimum caliper; and

3) suitable for the site.

8.3.2. In order to obtain a waiver, the location and number of trees six (6) inches or greater DBH to be removed shall be clearly indicated on a site plan and submitted for Commission review. Both the location and number of trees shall be field-verified by the Commission. Replacement quantities and types may be modified by the Commission upon a finding of undue hardship or a finding that the tree removal shall have a negligible effect on the Values, including but not limited to situations where the tree or shrub to be removed was significantly damaged by a storm event and is not likely to survive, the tree or shrub is already dead, or the property is heavily wooded and re-planting would be difficult.

8.3.3. The Commission may require a letter from a Certified Arborist to verify that a tree is a Compromised Tree unless such requirement is expressly waived by the Commission. Health evaluation of a deciduous tree in winter is difficult. The Commission may require that such trees be evaluated only during the growing season. In any instance where a certified arborist or tree services company is or has been consulted to determine the status of, and recommendations for, a property's trees, the landowner shall provide an official copy of the expert's survey results and recommendations as part of the request to the Commission.

8.3.4. In instances where there is a preponderance of evidence of a tree's imminent failure threatening danger to persons and property, the Commission may issue an Emergency Certification for the immediate removal of the tree.

8.3.5. No native vegetation in a Resource Area shall be damaged, extensively pruned, or removed without written approval by the Commission.

8.3.6. For extensive pruning or removal of native vegetation because of an imminent risk to public health and safety, in-kind replacement, other than invasive plants, shall be to the greatest extent practicable as determined by the Commission.

8.3.7. Tree stumps within the inner fifty (50) feet of the AURA or Riverfront Area should remain in place to assist in soil stabilization unless otherwise approved by the Commission.

8.3.8. A tree six (6) inches or greater in DBH size that is cut with a remaining tree trunk that is 15 feet tall above grade (known as a "snag") does not require replacement plantings. This option may be preferred where a large, tall tree threatens a structure but is within a naturalized area. Snags provide a habitat and food for wildlife.

8.3.9. For all replacement trees and shrubs:

8.3.9.1. Trees and shrubs must be non-invasive and should be native in Massachusetts and should be of the same general category of the removed tree or shrub (i.e., evergreen or deciduous), or a species approved by the Conservation Commission.

8.3.9.2. Replacement trees or shrubs shall have ball sizes which are of a diameter and depth to encompass enough of the fibrous and feeding root system as necessary for the full recovery of the plant once planted. Replacement trees shall have a caliper size at DBH of 1.5" or greater.

8.3.9.3. Replacement plantings must be installed within one hundred and eight (180) days of the day when the existing tree or shrub is removed.

8.3.9.4. Vegetation replacement shall not be considered successful until the replacement plants have survived two (2) full growing seasons from the date of planting. The Commission reserves the right to require re-planting if replacement trees or shrubs do not remain viable for two (2) full growing seasons.

8.4. Application Types

The application for vegetation removal shall be submitted as part of a Small Project Permit (SPP), Emergency Certification Request, RDA, or NOI application as described by the Bylaw and these Regulations.

8.4.1. An NOI is required for any vegetation removal in a wetland Resource Area listed in Sections 1.6.1 through 1.6.3 of Article I of these Regulations.

8.4.2. A Small Project Permit is required for removal of no more than five (5) Compromised Trees located solely within the AURA or Riverfront Area.

8.4.3. An RDA or NOI shall be submitted to remove six (6) or more Compromised Trees or any number of Non-Compromised Healthy Trees located within the AURA, Riverfront Area, or in NHESP Priority Habitat. The Commission may require the filing of an application following an Emergency Certification for the tree removal and mitigation.

10. Limited Projects

10.1 The Limited Project Provisions in 310 CMR 10.53(3) shall apply under this Bylaw and these Regulations.

ARTICLE V: PROCEDURES AND PERMITS

1. Self-Imposed Hardships

1.1. A self-imposed hardship is a circumstance brought on by decisions made by the landowner, including not limited to the following:

1.1.1. Failure to consider wetlands when subdividing land.

1.1.2. Selling off upland access which results in a project that cannot meet Performance Standards.

1.1.3. Purchasing land knowing that all upland access to the property interior had previously been subdivided off.

1.1.4. Disregarding impacts on the Resource Area.

1.2 The Applicant or landowner is advised to prevent situations where they may create their own hardship by not carefully considering all likely impacts to areas subject to the Bylaw and Regulations.

1.3 Projects may not be segmented in such a way that would limit the ability of the Conservation Commission to review all options and alternatives and consider Resource Area impacts.

1.4 The Applicant must disclose full development plans.

1.5 In determining whether a self-imposed hardship has been created, the Commission shall take into account whether alternatives exist/existed, including any lots currently or formerly owned by an Applicant and any other land which can be reasonably obtained.

1.6 No special consideration will be given for not being aware of the requirements of the Bylaw, and its Regulations.

1.7 No special consideration will be given to those who seek and obtain Planning Board subdivision approval and partially develop parcels, lots, or projects of any type prior to delineating and determining Resource Area boundaries and the AURA to same.

2. Time Periods

2.1. All time periods of ten (10) days or less specified in the Bylaw and these Regulations shall be computed upon business days only. In the case of a Determination or Order, such period shall commence on the first day after the date of issuance and shall end at the close of business on the tenth business day thereafter. All other time periods specified in the Bylaw and these Regulations shall be computed based on calendar days, unless the last day falls on a Saturday, Sunday, or legal holiday, in which case the last day shall be the next business day following.

2.2. To allow for careful review by the Commission, all Applicants and inquirers must submit (in hard copy and electronic form) complete materials as follows:

2.2.1. New applications: all materials are due by noon, ten (10) business days prior to the hearing or meeting.

2.2.2. Revised materials for open hearings: all materials are due by noon, five (5) business days prior to the hearing/meeting.

2.2.3. Informal discussions: all materials are due by noon, five (5) business days prior to the hearing/meeting.

2.3. Exceptions to these deadlines shall be at the sole discretion of the Commission Chair.

3. Working Sessions

3.1. When the Commission has time available, as a matter of courtesy, it may, but is not required, conduct a working session with any person seeking guidance or direction on what type of application to file with the Commission and what information the Commission might like to see in such an application in addition to that specified elsewhere in these Regulations or the state Wetlands Protection Regulations. No one has a right to a working session.

3.2. Any working session shall be held in accordance with the Open Meeting Law, MGL Chapter 30A, §§18 – 25.

3.3. For any working session, notwithstanding the Plan requirements in Article VI below, the following information, at a minimum, must be provided (at the working session):

3.3.1. a map or plan showing the location of the proposed work;

3.3.2. a sketch of the area of the proposed work, showing existing conditions (structures, approximate locations of actual or potential Resource Areas); and

3.3.3. a brief narrative describing the proposed work.

3.4. Statements by the Commission or any Commission member in a working session shall not be construed as prejudging a project or guaranteeing a particular action by the Commission on a subsequent filing. The Commission shall not be bound to any comments or opinions offered at a working session. A person who relies on any statements or information provided at the working session does so at their own risk.

4. Abutter Notifications

4.1. Concurrent with the filing of an RDA, NOI, Request for an Amended OOC, ANRAD, or Amended ANRAD, the Applicant also shall provide notification to all Abutters and Abutters to Abutters within one hundred (100) feet of the property line of the land where the delineation or activity is proposed, including owners of land directly opposite on any public or private street or way, in another municipality, or across a body of water less than 50-feet in width. The Abutter Notification shall include a brief description of the project and shall state where copies of the application and plans may be examined and obtained. An affidavit of the person providing such notice, with a copy of the notice mailed or delivered, shall be filed with the Commission. When a person submitting an RDA is other than the owner, the RDA, the notice of the hearing, and the DOA itself shall be sent by the Commission to the owner as well as to the person making the request.

4.2. Bylaw requirements for Abutter access to plan documents shall be considered satisfied when digital copies of the application, provided by the Applicant to the Commission, are posted on the Town of Shutesbury website. Copies of said plans shall be available online at www.shutesbury.org/concom and at Town Hall upon request at no additional cost.

4.3. The Applicant shall provide notification at the mailing addresses shown on the most recent applicable tax list, obtained within 30 days of the date of the application submission, from the Shutesbury Assessor (Certified Abutters List).

4.4. Notification of Abutters shall be at the Applicant's expense.

4.5. The Applicant shall notify Abutters by USPS Certified Mail (Return Receipt Requested), USPS Certificates of Mailing, or hand delivery. Hand delivery requires a signature and date of recipient.

4.6. Mailing of Abutter Notifications is required at least seven (7) business days prior to the Public Hearing or Public Meeting.

4.7. The Applicant shall present the Certified Mail receipts or proof of hand delivery with recipient signatures and date for all Abutters prior to, or at the beginning of the Public Hearing/Meeting.

4.8. The presentation of the receipts for all Abutters identified on the Certified Abutters List shall constitute compliance with Abutter Notification requirements. The Commission shall determine whether the Applicant has complied with Abutter Notification requirements and reserves the right not to open a hearing until requirements have been satisfied.

5. Actions by Conservation Commission

5.1 Voting: Where the Bylaw states that a particular action (except receipt of an RDA or other application for permit) is to be taken by the Commission, that action is to be taken by more than half the members present at a meeting of at least a quorum. A quorum shall be at least three Commissioners for the 5-member Commission.

5.2 Issuing/Signing Authority: Where the Bylaw states that a permit or notification shall be issued by the Commission, that action is to be taken by a majority of the members then in office, who need not convene as a body in order to sign said permit or Determination, provided they met pursuant to the Open Meeting Law (MGL Chapter 30A, §§ 18-25) when voting on the matter.

6. Abbreviated Notice of Resource Area Delineation (ANRAD)

6.1. Applicants wishing to have wetlands delineations approved by the Commission, pursuant to 310 CMR 10.05 (4)(b)(2) and the Bylaw, shall use the most current MassDEP guidelines and forms for ANRADs.

6.2. The Commission may require that supporting materials be prepared by other professionals including but not limited to a registered landscape architect, registered land surveyor, environmental scientist, geologist, or hydrologist when the complexity of the filing warrants specialized expertise.

6.3. Applicants are advised that the Commission has broader jurisdiction under the Bylaw than the WPA, and shall therefore review ANRADS for resource areas jurisdictional under the WPA, the Bylaw, and these Regulations.

7. Small Project Permit (SPP)

7.1. Small Projects may be permitted with a Small Project Permit (SPP) where proposed work involves minimal activity or alteration. Small Projects are those deemed by the Commission not to require an RDA or NOI and to have a limited effect on Bylaw Values.

7.2. Small Projects involve limited work or activity outside of any Resource Areas listed in Article I, except the AURA and Riverfront where work must be at least fifty (50) feet from the resource boundary, or MAHWL in Riverfront Area.

7.3. On a case-by-case basis, for projects that the Commission finds are not likely to alter a jurisdictional Resource Area, work may be reviewed through a Small Project Permit application. The intention of the SPP is to ensure that Resource Areas and their Values are protected while creating a streamlined review process for small, limited projects, outside of any wetland Resource area, the inner fifty (50) feet of the AURA, and inner Riverfront Area, that are determined to have a limited impact on the Values.

7.4. The Commission reserves the right to require an RDA or NOI application for any activity reviewed under an SPP, if the Commission determines that the proposed activity does not constitute a Small Project and is significant enough to warrant an RDA or NOI.

7.5. All Small Projects shall be designed and executed in a manner so as to reduce the potential for any adverse effects on any Resource Areas and their Values during construction. Small Projects shall include appropriate erosion and sedimentation controls, site stabilization procedures, and stockpiling of materials outside of any wetland Resource Area, the inner fifty (50) feet of AURA, or the inner fifty (50) feet of Riverfront Area.

7.6. Activities that shall not be permitted with an SPP:

7.6.1. any activity in a Resource Area listed in Article I above, other than those located in outer fifty (50) feet of the AURA or at least fifty (50) feet from the MAHWL in Riverfront Area, excluding Minor Activities defined in Article I which are exempt from any application requirement;

7.6.2. any activity that involves the use of heavy equipment that could cause significant damage to the AURA or Riverfront area;

7.6.3. any activity that involves substantial regrading, excavating, filling, or other form of ground disturbance, except for the installation of helical piers or in-ground cast or poured concrete pier supports necessary for structures allowed under Section 7.6.8 below.

7.6.4. the uprooting or root grappling of trees;

7.6.5. the mowing or clearing of native vegetation in a Resource Area that is not a Compromised Tree;

7.6.6. the removal of any Non-Compromised Healthy Trees or six (6) or more Compromised Trees.

7.6.7. the conversion of more than one hundred twenty (120) square feet of previously established lawn to residential accessory structures including, but not limited to, decks, sheds, above-ground pools, garages, patios, replacement of basement bulkheads, and the installation of accessibility ramps.

7.4. Applicants are responsible for ensuring that activities approved under an SPP do not result in any non-permitted alteration of a Resource Area, including the AURA or Riverfront Area, and to use appropriate erosion and sedimentation controls.

7.5. SPP applications must be submitted in writing to the Commission at least twenty-one (21) days before the commencement of the proposed work or activity.

7.6. At a minimum, SPP applications shall include: a SPP form, a written description of the work or activity to be reviewed; the name and contact information for the Applicant; a description of proposed erosion and sedimentation controls and site stabilization procedures; and a site plan or sketch identifying the location of the activity.

7.7. Within twenty-one (21) days of the receipt of a SPP application, the Commission shall conduct a site visit and review the project at the Commission's next scheduled public meeting. The Commission shall either approve or deny the SPP application, by a majority vote. The Commission may attach conditions or time limitations on any SPP and reserves the right to conduct post-approval site inspections to monitor compliance with such conditions.

7.8. If approved by the Commission, SPP applications shall not require professional wetland delineations, Abutter Notifications, or a Legal Notice. No public hearing is required for an SPP application review.

7.9. SPPs shall lapse one year from the date of issuance and may not be extended.

8. Request for Determination/Determinations of Applicability (RDA)

8.1. Any person who desires a Determination as to whether the Bylaw applies to an area or activity that may affect an area subject to protection under the Bylaw, may submit to the Commission by USPS Certified mail, USPS Certificate of Mailing, or hand delivery two (2) hard copies and one (1) electronic copy via email of the RDA, along with other required materials. The RDA shall include such data and plan requirements as are required by the Commission, including the provisions outlined in Article VI below.

8.2. Any person filing an RDA with the Commission shall comply with the Abutter notification requirements discussed in Article V above in these Regulations.

8.3. The Commission does not grant waivers to Abutter notification requirements for RDAs.

8.4. An RDA shall include a written certification that the owner of the area, subject to the request, if the person making the request is not the owner, has been notified that a Determination is being requested under the Bylaw.

8.5. If the Commission or its agent determines that an application is incomplete, it shall notify the Applicant. Upon confirmation that the RDA application is complete, the Commission shall give the Applicant a date and time for a public hearing.

8.6. A Legal Notice of the time and place of the public hearing, at which the Determination will be made, shall be published by the Applicant's expense in a local newspaper not less than five (5) business days prior to such meeting.

8.7. Determination of Applicability (DOA)

8.7.1. Unless otherwise granted an extension by the Applicant, when a complete RDA application is received, the Commission shall convene a public hearing to issue a positive or negative DOA within twenty-one (21) days of receipt of a complete application.

8.7.2. The Determination must be signed by a majority of the Commission present at a public meeting. It shall be sent by the Commission to the person making the Request and the owner of the property if different than the person making the Request.

8.7.3. The Commission shall find that the Bylaw applies to the land, or a portion thereof, if it is an area subject to protection under the Bylaw. The Commission shall find that the Bylaw applies to the work if it is an activity subject to the Bylaw and its Regulations.

8.7.4. Determinations of Resource Area delineations in a DOA shall be based upon the Commission's discretion. In complex delineations, the Commission may hire a consultant at the Applicant's expense, pursuant to Article VI of these Regulations, to review the boundaries of Resource Areas.

8.7.5. A Determination shall be valid for three years from the date of issuance.

8.7.6. In the event of a positive DOA, an NOI shall be required for any activity subject to Commission jurisdiction and all of the procedures set forth in Articles V and VI relative to such applications shall apply.

9. Notice of Intent (NOI)

9.1. Any person who proposes work that will remove, fill, dredge, build upon, or alter any Resource Area and/or AURA subject to protection under the Bylaw and these Regulations shall submit an application, called a Notice of Intent (NOI), and other application materials in accordance with the submittal requirements set forth in Articles V and VI of these Regulations.

9.2. The Applicant shall have the burden of proving by a preponderance of credible evidence from Competent Sources that the work proposed in the NOI will not have a significant or cumulative effect upon the Resource Area Values protected by the Bylaw. Failure to provide adequate evidence to the Commission supporting this burden shall be sufficient cause for the Commission to deny a permit.

9.3. If the Commission or its agent determines that an application is incomplete, it shall notify the Applicant within twenty-one (21) days of the date of receipt. The Commission or its agent may:

9.3.1. return the application, restarting all time periods for application processing;

9.3.2. require additional information or materials be submitted within a specified period of time which shall be no later than the date of the scheduled public hearing; or

9.3.3. continue the public hearing, with the Applicant's consent.

9.4. Applications submitted to the Commission must meet the submittal requirements under both the WPA, the Bylaw, and their Regulations. All applications will be considered under both the WPA and the Bylaw. Any person filing an NOI with the Commission shall comply with the Abutter notification requirements as discussed in Article V above of these Regulations. When a person applying is other than the owner, the owner or a legally authorized representative of the owner must sign the application or provide separate written permission.

9.5. If only a portion of a proposed project or activity lies within an area subject to protection under the Bylaw and the remainder of the project or activity lies outside those areas, all aspects of the project must be described in detail, also provided that in such circumstances, the NOI shall also contain a description and calculation of pre- and post-development peak flows and estimated water quality characteristics of discharge from a point source (both closed and open channel) when the point of discharge falls within an area subject to protection under the Bylaw.

9.6. If an Applicant wishes to obtain an ORAD, they must file an ANRAD prior to filing an NOI. Alternatively, the boundary of a Resource Area may be determined through the filing of the NOI or an RDA.

9.7. The Commission shall hold a public hearing within twenty-one (21) days of receipt of the complete NOI.

9.8. If the Commission determines that the Applicant incorrectly or incompletely delineated a Resource Area(s), the Commission shall request that the Applicant provide the correct delineation or missing information. If the correct delineation or missing information is not provided, the Commission shall close the hearing and issue a denial Order of Resource Area Delineation or denial OOC within twenty-one (21) calendar days. The denial shall specify the basis for the decision. The Commission shall have the authority to deny any proposed Resource Area delineation when:

9.8.1. the application is incomplete;

9.8.2. the delineation is incorrect; or

9.8.3. the Commission requires additional information that the Applicant does not provide.

9.9. Review Period: Resource Area boundary delineations shall be reviewed during winter months in accordance with the Winter Delineation Procedures outlined in Article III.

10. Public Hearings

10.1. The Commission shall hold a public hearing within twenty-one (21) days of receipt of any permit application, RDA, or ANRAD that meets the minimum submittal requirements set forth in Articles V and VI, unless an extension is authorized in writing by the Applicant.

10.2. The Commission shall have the authority to continue a public hearing to a specific date announced at the hearing, for reasons stated at the hearing, which may include the need for additional information from the Applicant or others as deemed necessary by the Commission. In the event the Applicant objects to a continuance or postponement, the hearing shall be closed, and the Commission shall take action on such information as is available.

10.3. Notice shall be advertised at the expense of the Applicant at least five (5) business days prior to the hearing in a newspaper of general circulation in the Town. Upon receipt of an application, the Commission or its representative shall contact the applicant to arrange for the notice.

10.4. It is standard practice for the Commission to combine its hearings under the Bylaw with the hearing conducted under the WPA. Public hearings may be continued with the Applicant's consent, to an agreed upon date, which shall be announced at the hearing.

10.5. A public hearing and notice shall not be required for review of a SPP, but such application shall be reviewed at a public meeting.

11. Coordination with Other Boards and Offices

11.1. The Commission or its representative shall provide access to electronic versions of permit applications to the Shutesbury Select Board, Planning Board, Zoning Board of Appeals, Board of Health, and Franklin County Building Inspector. A copy of the application shall also be provided

to the Conservation Commission of any adjoining municipality if the application or RDA pertains to property within one hundred (100) feet of that municipality. An affidavit of the person providing notice, with a copy of the notice mailed or delivered, shall be filed with the Commission.

11.2. These boards and offices aforesaid may file written comments and recommendations with the Commission. Any such written comments and recommendations will be provided to the Applicant and owner when they are filed with the Commission. The Applicant and owner shall have the right to respond to such written comments and recommendations at a hearing of the Commission prior to final action.

11.3. The Commission shall not take final action until the aforesaid boards and officials have had fourteen (14) days from receipt of notice to file written comments and recommendations with the Commission, which the Commission shall take into account, but which shall not be binding on the Commission.

12. Decisions

12.1. The Commission in an appropriate case, may combine the decision issued under this Bylaw with the Order of Conditions (OOC), Determination of Applicability (DOA), Order of Resource Area Delineation (ORAD), or Certificate of Compliance (COC) issued or other action on an application issued under the WPA and its Regulations (310 CMR 10.00).

12.2. Within twenty-one (21) days of the close of the public hearing, the Commission shall issue an approval or denial permit decision with an OOC, DOA, ORAD, or other action.

12.3. If the Commission, after a public hearing, determines that the activities which are the subject of the application, or the land and water uses which will result therefrom, are likely to have a significant individual or cumulative effect upon the Bylaw Values, the Commission shall issue or deny a permit for the activities requested. The Commission shall take into account the extent to which the Applicant has avoided, minimized, and mitigated any such effect. Approved permits shall impose conditions deemed by the Commission to be necessary to protect the Values identified in the Bylaw. The permit shall prohibit any activity or portion thereof that cannot be conditioned to protect said Values.

12.4. If a permit is denied, it shall be for one or more of the following reasons:

12.4.1 for failure to pay the filing fee, or failure to provide fees for peer-review consulting services;

12.4.2. for failure to submit necessary information or plans requested by the Commission, including the failure to permit reasonable by the Commission for purpose of application review;

12.4.3. for failure to meet design specifications, Performance Standards, or other requirements in the Bylaw and its Regulations; or

12.4.4. for failure to avoid, minimize, or mitigate unacceptable significant or cumulative effects upon the Resource Area Values protected by the Bylaw.

12.5. In the event of a denial of an application, the Commission shall set forth the reasons for the denial and shall send notice of such action to the Applicant by USPS Certified Mail (Return Receipt Requested), to the address listed on the application.

12.6. No work proposed in any application shall commence until the OOC or ORAD, issued by the Commission with respect to such work or application, has been recorded in the Franklin County Registry of Deeds, or, if the land affected is registered land, in the registry section of the land court for the district wherein the land lies, and until the Applicant certifies in writing to the Commission that the document has been duly recorded. Amended OOCs and ORADs shall also be duly recorded at the Franklin County Registry of Deeds within thirty days of issuance and shall not take effect until such recording.

12.7. Unless extended or issued for a lesser time period, an OOC shall expire three (3) years from the date of issuance. In some instances, the Commission may issue a maintenance permit for five (5) years.

12.8. Any DOA, OOC, ORAD, COC, or other permit or order shall be signed by a majority of the Commission and shall be mailed to the Applicant via USPS Certified Mail (Return Receipt Requested) or hand delivered to the Applicant, their agent, or the owner of record.

12.9. A hard copy and an electronic copy of the application and permit materials shall be kept on file by the Commission and shall be made available to the public upon receipt of a public records request.

12.10. If work is undertaken without the Applicant first recording the OOC, ORAD or COC, the Commission may issue an Enforcement Order.

12.11. For failure to comply with conditions stated in a Permit, the Commission may revoke or modify said Permit.

13. Subdivisions versus Individual Lots

Unless otherwise specifically identified, Orders of Conditions approving subdivisions apply only to the roads, drainage, and related infrastructure on the definitive plan and do not apply to any individual lots. Each lot within a Resource Area shall be required to file a separate NOI and obtain a separate OOC.

14. Security

14.2. As part of a permit issued under the Bylaw, in addition to any security required by any other municipal or state board, agency, or official, the Commission may require that the performance and observance of the conditions imposed thereunder (including conditions requiring mitigation work) be secured wholly or in part by one or both of the methods described below:

14.2.1. By a proper bond or deposit of money or negotiable securities under a written third-party escrow arrangement, or other undertaking of financial responsibility sufficient in the opinion of the Commission to be released in whole or in part upon issuance of a COC for work performed pursuant to the permit.

14.2.2. By accepting a conservation restriction, easement, or other covenant enforceable in a court of law, executed and duly recorded by the owner of record in the Franklin County Registry of Deeds, running with the land to the benefit of the Town of Shutesbury, whereby the permit conditions shall be performed and observed before any lot may be conveyed other than by mortgage deed. This method shall only be used with the consent of the Applicant.

14.3. In determining the amount of surety, the Commission shall be guided by the following formula in setting the sum of the security:

14.3.1. The Commission's estimate of the cost to complete the work permitted by an OOC or required through an Enforcement Order; and

14.3.2. A reasonable contingency (no lower than 30% of the cost) in an amount to be determined, on a case-by-case basis by the Commission.

14.4. All security shall be bound by a legal agreement between the Commission and the Applicant, in a form approved by the Commission and Town Counsel (or Commission Counsel), to ensure work occurs in accordance with the requirements and time schedule set forth by the Commission as specified in all orders, documents, terms, and provisions issued.

14.5. The return of the surety to the Applicant may occur after the appropriate professional certifies to the Commission in writing that the work has been completed in accordance with all the requirements set forth by the Commission and a written request has been made to the Commission for the return of the surety. The Commission shall have the opportunity to confirm, by whichever method(s) it deems necessary, that the work has occurred in accordance with all permits, Orders, and documents prior to the release of the surety.

15. Extension of Permit

15.1. A DOA or ORAD shall be valid for three (3) years from the date of issuance and may not be extended or renewed. ORAD - can be extended with an update of the delineation line, written request 30 days prior to expiration, site visit, approval by Commission.

15.2. A Small Project Permit (SPP) shall be valid for one (1) year from the date of issuance and may not be extended or renewed.

15.3. An OOC shall expire up to three (3) years from the date of issuance. The Commission may extend an OOC one or more times for periods of up to three (3) years each.

15.4. Notwithstanding this aforesaid provision, the Commission may issue an OOC expiring for a longer period, up to a maximum of five (5) years from the date of issuance, for recurring or continuous maintenance work, provided that annual notification of time and location of work is given to the Commission.

15.5. Requests for extension shall be made in writing to the Commission at least thirty (30) days prior to the expiration of the permit. The Commission shall hold a public hearing in accordance with the Bylaw and these Regulations within thirty (30) days of receipt of said request. Should said public hearing be continued past the date of the expiration of the permit, the expiration date shall be stayed to the date on which the Commission votes on whether to extend the permit, should the Commission vote not to grant the request for permit extension.

15.6. Extensions require the following:

15.6.1. A site visit to confirm that Resource Area boundaries have not changed.

15.6.2. Resource Area flagging/marking must be present and complete as approved on the original permit approval on the subject site to confirm no boundary changes.

15.6.3. Site must be in full compliance with the existing permit and there may be no outstanding Enforcement Orders on the property.

15.6.4. Information must be provided regarding any changes in Resource Areas or their boundaries since the issuance of the original permit. Changes in Resource Areas shall require a new NOI filing.

15.7. The Commission may deny the request for an extension and require the filing of a new application for a permit for the remaining work under the following circumstances:

15.7.1. where no work has begun on the project, except where such failure is due to an unavoidable delay, such as appeals, in the obtaining of other necessary permits;

15.7.2. where new information, not available at the time the permit was issued, has become available and indicates the permit is not adequate to protect the Values identified in the Bylaw;

15.7.3. where incomplete work is causing damage to the Values identified in the Bylaw;

15.7.4. where work has been done in violation of the permit or these Regulations; or

15.5.5. where Resource Areas have changed.

15.8. If issued by the Commission, the Extension Permit shall be approved and signed by a majority of the Commission.

15.9. The Extension Permit shall be recorded in the Franklin Registry of Deeds within 30 days of its issuance. Certification of recording shall be sent to the Commission within 30 days of the permit issuance date. If work is undertaken without the Applicant recording the Extension Permit, the Commission may issue an Enforcement Order.

16. Project Changes and Permit Amendments

16.1. If an Applicant seeks to make any change to a permitted project or other Commission determination, the Applicant shall consult with the Commission Chair or other designated representative, who may approve the change or require review by the full Commission. Any such requested modification shall have the same or less impact on the Values as the approved work.

16.2. No permit changes shall be approved for an expired permit.

16.3. Procedure for Amended OOC Requests:

16.3.1. The request shall be submitted in writing and discussed at a regularly scheduled public meeting. The request shall describe the proposed changes and present any pertinent plans showing such changes.

16.3.2. The Commission first shall determine at a public meeting whether the requested change warrants the filing of a new NOI or whether it is sufficiently minor to be considered an amendment to the original OOC. The Commission may determine that the project change is minor only if:

16.3.2.1. the purpose of the project has not changed,

16.3.2.2. the scope of the project has not increased,

16.3.2.3. the project still meets relevant standards in these Regulations,

16.3.2.4. Resource Areas are still protected, and

16.3.2.5. the potential for adverse impacts on Values will not be increased.

16.3.3. If the Commission determines the proposed change(s) is not minor and the Applicant intends to continue to pursue the modification, then it shall not issue an amendment but instead require the filing of a new NOI/application for permit.

16.3.4. Administrative correction of obvious mistakes, such as citing a wrong file number or typographical errors, may be accomplished by correcting of the permit by the Commission or the Commission Chair.

16.3.5. If the Commission determines that a new NOI is not necessary, the Applicant shall, at their expense, satisfy the notification requirements for public hearings as outlined in Article V above. The notice must describe that an amendment to an Order/permit is being requested, that the request is pending before the Commission for review, the date of the public hearing at which the Commission will consider the request for amendment, and where a copy of the application for the requested change may be obtained. The Commission shall provide notice of the public hearing in accordance with the requirements of the Open Meeting Law, MGL Chapter 30A, §§18–25.

16.3.6. Under no circumstances will the issuance of an Amended OOC extend the effective date of the original OOC. The Amended Order shall run with the term of the original OOC or the effective date of an extended OOC.

16.3.7. The Amended OOC shall be issued on the form provided for an OOC/Permit, with the insertion of the word "Amended" and the amendment date. Amended OOCs must be recorded with the Franklin Registry of Deeds in the same manner as OOCs.

17. Enforcement

17.1. No person shall remove, fill, dredge, build upon, degrade, or otherwise alter Resource Areas protected by this Bylaw, or cause, suffer, or allow such activity, or leave in place unauthorized fill, or otherwise fail to restore illegally altered land to its original condition, or fail to comply with a permit or an enforcement order issued pursuant to this Bylaw.

17.2. The Conservation Commission, its agents, officers, and employees shall have authority to enter upon privately owned land for the purpose of performing their duties under this Bylaw and may make or cause to be made such examinations, surveys, or sampling as the Commission deems necessary, subject to the constitutions and laws of the United States and the Commonwealth. Site visits shall be conducted as deemed necessary by the Commission as part of an application process or to determine compliance with the Bylaw, its Regulations, and any Order of the Commission. Failure to grant such access may cause the Commission to deny an application, to issue a notice of violation, or to seek enforcement action.

17.3. The Commission shall have authority to enforce the Bylaw, these Regulations, and permits and Orders issued thereunder by letters, phone calls, electronic communication and other informal methods, administrative orders, violation notices, Enforcement Orders, non-criminal citations under M.G.L. Chapter 40 §21D, and civil and criminal court actions. Any person who violates provisions of the Bylaw and these Regulations may be ordered to restore the property to its original condition and take other action deemed necessary to remedy such violations, or may be fined, or both.

17.4. Upon request of the Commission, the Shutesbury Select Board and Town Counsel, or the Commission’s Counsel, may take legal action for enforcement under civil law. Upon request of the Commission, the Chief of Police may take legal action for enforcement under criminal law.

Municipal boards and officers, including any police officer or other officer having police powers, shall have authority to assist the Commission in enforcement.

17.5. Any person who violates any provision of this Bylaw, Regulations thereunder, permits, or administrative orders issued thereunder, shall be punished by a fine of one hundred dollars ($100.00) for the first offense and three hundred dollars ($300.00) every offense thereafter. Each day or portion thereof, during which a violation continues, or unauthorized fill or other alteration remains in place, shall constitute a separate offense, and each provision of the Bylaw, its Regulations, permits, or administrative orders violated shall constitute a separate offense.

17.6. As an alternative to criminal prosecution, the Commission may issue citations with specific penalties pursuant to the non-criminal disposition procedure set forth in MGL Chapter 40, 21D, which has been adopted by the Town of Shutesbury in its General Bylaws. For purposes of non-criminal disposition, enforcing persons shall be the Conservation Commission Chair, the Commission's agent, and/or Police Officers. For purposes of non-criminal enforcement procedures pursuant to M.G.L. Chapter 40 §21D, each of the following actions, omissions or occurrences shall be considered a separate offense. Each day or portion thereof during which a violation continues may constitute a separate offense. Each such offense shall be punished by a fine of $50.00:

17.6.1. activities that alter, as defined in §10 of this Bylaw, any Resource Area protected by this Bylaw;

17.6.2. failure to file a written application with the Commission for permission to perform activities regulated by this Bylaw affecting Resource Areas described in §2 above; or

17.6.3. failure to follow any or all conditions of a permit issued by the Commission for activities within a Resource Area as described above.

17.7. When the Commission determines that an activity violates the Bylaw or a permit issued under the Bylaw, the Commission may issue an Enforcement Order or take other action necessary to achieve compliance.

17.8. Violations include, but are not limited to:

17.8.1. failure to comply with a Final Order, Final Determination, Emergency Declaration, or Emergency Certification, such as failure to observe a particular condition or time period specified in the Order, Declaration, or Certification;

17.8.2. failure to complete work described in a Final Order or Final Determination, Emergency Declaration, or Emergency Certification when such failure causes damage to the Values identified in the Bylaw, and its Regulations;

17.8.3. failure to obtain a valid Final Order or Extension Permit prior to conducting an Activity Subject to Regulation under the Bylaw and its Regulations;

17.8.4. making any false, inaccurate, or misleading statements in any certification filed under the Bylaw and its Regulations;

17.8.5. failure to comply with any certification on previously approved project plans or failure to seek prior approval from the Commission for any modifications or amendments to previously approved plans, prior to the commencement of any unapproved work;

17.8.6. leaving in place unauthorized fill or otherwise failing to restore illegally altered land to its original condition, or continuing any other activity in violation of the Bylaw; or

17.8.7. activities outside the Bylaw jurisdictional areas that, upon review of compelling evidence, are determined by the Commission to have resulted in the removing, filling, dredging, discharging into, building upon, degrading, or otherwise altering a Resource Area specified Article I above.

17.9. An Enforcement Order or other directive from the Commission will outline remedial actions necessary, including submission of an after-the-fact permit application, plans, supporting calculations, and other documentation necessary to describe the entire activity resulting in the violation. Upon review, additional requirements or modifications to the remedial actions may be required. An Enforcement Order may include requirements for restoration or mitigation.

17.10. An Enforcement Order issued by the Commission shall be signed by a majority of the Commission. In a situation requiring immediate action, the Order may be signed by the Commission Chair, or if unavailable, another Commissioner. Such an Order must be ratified by a majority of the members at the next scheduled public meeting of the Commission.

17.11. An Enforcement Order shall remain in effect until the Commission reaches a determination that the Enforcement Order has been dismissed.

17.12. Any person who purchases, inherits, or otherwise acquires real estate upon which work has been done in violation of the provisions of the Bylaw, or in violation of any permit issued pursuant to the Bylaw, shall forthwith comply with any Order to restore said land to its pre-violation condition, provided, however, that no action, civil or criminal, shall be brought against such person unless such action is commenced within three (3) years following the recording of the deed or the date of the death by which such real estate was acquired by such person.

18. Certificate of Compliance (COC)

18.1. Upon completion of the work described in an OOC or Amended OOC, the Applicant shall file a Request for Certificate of Compliance (COC) with the Commission.

18.2. Upon written request by the Applicant, a COC shall be issued by the Commission within twenty-one (21) days of receipt thereof, and shall certify, if it so determines, that the activity, or portions thereof, described in the NOI and OOC have been completed in compliance with the Order. If approved by the Commission, the COC shall be signed by a majority of the Commission.

18.3. Prior to the issuance of a COC, a site inspection shall be made by the Commission or its agent, in the presence of the Applicant, or the Applicant's agent if the Applicant so requests.

18.4. If the Commission determines, after review and inspection, that the work has not been done in compliance with the OOC, it may refuse to issue a COC. Such refusal shall be issued within twenty-one (21) days of receipt of a request for a COC, shall be in writing and shall specify the reasons for denial. In some cases, the Commission may issue a partial certification if only some conditions have been met or if the OOC contains perpetual conditions.

18.5. If a project has been completed in accordance with plans stamped by a registered professional engineer, architect, landscape architect, or land surveyor, a written statement by such a professional person certifying substantial compliance with the plans and setting forth what deviation, if any, exists from the plans approved in the Order shall accompany the request for a

COC. The Commission reserves the right to administer the requirements of this paragraph commensurate with the nature, scope, type, and cost of the proposed project or activity.

18.6. If the final OOC contains conditions which continue past the completion of the work, such as maintenance or monitoring, the COC shall specify which, if any, of such conditions shall continue. The COC shall also specify to what portions of the work are certified under the COC if the COC does not apply to all the work regulated by the Order.

18.7. The COC shall be recorded by the Applicant in the Land Court or Franklin Registry of Deeds, whichever is appropriate, within 30 days of its issuance. Certification of recording shall be sent to the Commission. Upon failure of the Applicant to so record, the Commission may do so.

19. Emergency Projects

19.1. Unless authorized by a Severe Weather Emergency Declaration issued by the Commissioner of MassDEP pursuant to 310 CMR 10.06(8), any person requesting permission to do an emergency project shall specify why the project is necessary for the protection of the health or safety of the citizens of the Town of Shutesbury and what agency of the Commonwealth or subdivision thereof is to perform the project or has ordered the project to be performed.

19.2. If the project is certified to be an emergency, the Emergency Certification shall include a description of the work which is to be allowed and shall not include work beyond that necessary to abate the emergency.

19.3. The Commission shall be notified prior to the commencement of emergency work, or within twenty-four (24) hours after commencement if prior notice is not practicable given the nature of the emergency. This notice will assist the Commission in determining how the work may be conducted in a way that minimizes detrimental impacts to Resource Areas or what work may need to be conducted after the emergency work has been performed to mitigate impacts to Resource Areas.

19.4. An Emergency Certification shall be issued only for the protection of public health or safety.

19.5. The Commission shall conduct a site inspection before issuing an. Emergency Certification.

19.6. The time limitation for the performance of emergency work shall not exceed thirty (30) days.

19.7. Within thirty (30) days after a project is certified as an emergency by the Commission, a public meeting shall be held on the project for which the Commission may require a filing of an NOI or impose remedial conditions on the work.

19.8. At a minimum, a request for an Emergency Certification shall include the following information:

19.8.1. who is doing the work (e.g., public agency, contractor, homeowner);

19.8.2. what work is being proposed, including erosion & sediment controls, proposed work, and final stabilization measures;

19.8.3. where the work is proposed (address, where on the property, what Resource Areas in jurisdiction are located on the property);

19.8.4. when the work is to be conducted (dates, including the duration of the work proposed);

19.8.5. why the project is an emergency (e.g., the threat to public health & safety).

19.9. Emergencies (including Agricultural Emergencies) where work is proposed within an area identified by NHESP as being in Estimated and/or Priority Habitats require separate and independent permission from NHESP.

20. Appeals

Any person aggrieved by a decision of the Commission may appeal to a court of competent jurisdiction pursuant to MGL Chapter 249, §4.

21. Severability

21.1. The invalidity of any section or provision of the Bylaw or of these Regulations shall not invalidate any other section or provision thereof, nor shall it invalidate any permit or determination previously issued.

21.2. If any Court of the Commonwealth shall invalidate any provision of the Bylaw or these Regulations, the Commission may promulgate additional Regulations, or present amendments to the Bylaw to the next Town Meeting after such invalidations, or approve Regulations designed to comply with any court decision, as the case may be.

22. Effective Date

22.1. These Regulations shall become effective upon passage by the Commission and filing with the Shutesbury Town Clerk, and the provisions of these Regulations shall apply to all work performed, and all applications received on or after that date.

22.2. Any projects possessing a valid OOC, or other permit, issued under the Bylaw at the time of adoption of these Regulations shall not be subject to re-review under these Regulations. Any revisions to the projects after adoption of these Regulations that require an Amended OOC or Extended Permit shall be subject to review under these Regulations.

23. Amendments

These Regulations may be amended from time to time by a majority vote of the Commission if, prior to such a vote, the Commission has held a public hearing on the proposed changes.

ARTICLE VI: FILING REQUIREMENTS, FEES, AND MINIMAL WORKING CONDITIONS

1. Timeframes for Submission of Documentation

To be considered as part of an application by the Applicant, all documentation – including narratives, plans, maps, tables, charts, reports, and other relevant data – must be submitted to the Commission no later than 12 p.m., ten (10) business days prior to the scheduled public hearing, or its continuation. This is the minimum time needed to allow the Commission and staff to properly review, analyze, and check the information provided. Documentation submitted with

fewer than the minimum required days for review may be excluded from consideration at the scheduled hearing and held for discussion at a subsequently scheduled meeting.

2. General Application Requirements

2.1. Introduction: Plans and accompanying documentation shall describe the proposed activity and its effect on the environment. The following requirements are set out as a minimum standard. The Applicant may submit, or be required to submit, any further information that will assist the Commission's review and that is deemed necessary to determine the proposed effect on the Values protected by the Bylaw and these Regulations. Such requirements shall be commensurate with the nature, scope, and type of the proposed project or activity.

2.2. The Applicant is responsible for accurately delineating Resource Areas protected under the Bylaw and these Regulations. Failure to provide this information, or providing erroneous or false information, shall be grounds for denying, suspending, or revoking the permit under this Bylaw.

2.3. The Commission may waive any plan requirements it deems insignificant or irrelevant for a particular project.

2.4. The Commission may create alternative forms, informational checklists, and other instructions for applications under the Bylaw and these Regulations.

2.5. All RDAs, NOIs, and ANRADs shall include:

2.5.1. The names and addresses of the record owner(s), the Applicant(s), and all 100-foot Abutters, as determined by the most recent local tax list certified by the Shutesbury Assessor's Office, unless the Applicant shall have more recent knowledge of such Abutters.

2.5.2. Proof of Legal Notice, Abutter Notifications, and submission of the Application to MassDEP shall be provided prior to the Public Hearing or Public Meeting.

2.5.3. Payment to the Town of Shutesbury in accordance with the fee schedule established in the Fee Section below.

2.5.4. Proof of submission of the application to MassDEP and to any other agency as required under local, state, or federal law, including not limited to the MA NHESP and MassDEP Waterways Program. RDAs that propose work in Priority or Estimated Habitat must submit their application to MA NHESP for review 30 days prior to the Public Meeting.

2.5.5. An eight-and-one-half-inch-by-eleven-inch (8 ½" x 11") reproduction of the USGS quadrangle sheet showing the project locus.

2.6. Site Plans:

2.6.1. Plans illustrating the project location, limit of work, location of erosion and sedimentation control devices, and Resource Area boundaries, including the AURA.

2.6.2. Site plans are required to show 2-foot contour intervals.

2.6.3. Plans shall be drawn to scale, unless waived by the Commission

2.6.4. Comments conveying personal opinions on the quality or degraded nature of Resource Areas cannot be included on any plans (e.g., statements such as "Degraded/Low Quality Wetland").

2.6.5. For perennial streams protected by the Bylaw, drawings must show the Mean Annual High Water (or Bankfull) Line, and both the 100-foot inner Riverfront Area line and the 200-foot Riverfront Area boundary.

2.6.6. Any notes on plans misidentifying Resource Areas with incorrect labels will not be accepted.

2.7. Required Narrative:

2.7.1. Description of method of wetland delineation

2.7.2. Description of delineated Resource Areas and distance from project limit of work

2.7.3. Description of proposed work and, if relevant, construction sequence

2.7.4. Methods to be used for control of erosion and sedimentation during and after construction, where such methods are necessary.

2.7.5. For projects proposing alterations to Resource Areas, including the AURA, a description of Reasonable Options considered that explains what alternative approaches have been considered and how the proposed project protects the Values.

3. RDA Application Requirements

3.1. The Commission will accept as an RDA under the Bylaw the MassDEP RDA Form 1, filed under the WPA. Forms can be obtained at the Commission's office or online at the Commission's and MassDEP's website.

3.2. RDAs must be submitted to MassDEP, either by mail or electronically on the MassDEP online permitting platform, but two (2) separate hard copies and an electronic copy of the RDA (in pdf format) must be submitted separately to the Commission.

3.3. The RDA must include all required information listed above under General Requirements.

3.4. Applicants must provide certification that the owner of the area subject to the RDA, if the Applicant filing the request is not the owner, has been notified of the RDA filing.

3.5. Applicants must provide all information requested on the RDA Form 1 and note on Form 1 that the review under the Bylaw is requested. In addition, the RDA must be accompanied by a plan or drawing, with an accompanying narrative, which provides sufficient information to enable the Commission to review the project area and to determine whether the proposed activity will alter a Resource Area under the Bylaw and these Regulations.

4. ANRAD Application Requirements

4.1. The Commission will accept, as the application filed under the Bylaw, MassDEP ANRAD Form 4A as filed under the WPA. Forms can be obtained at the Commission's office or online at the Commission's and MassDEP's websites. ANRADs may be submitted electronically to MassDEP through the MassDEP online permitting platform, but two (2) separate hard copies and an electronic copy of the ANRAD (in pdf format) must be submitted separately to the Commission.

4.2. Submittal of plans and plan revisions shall conform to all standards listed on the Instructions to WPA Form 4A as well as those specifications listed on the Commission's

ANRAD filing requirement checklist (available from the Commission office and the Commission website).

4.3. The Commission may require that supporting materials be prepared by other professionals including, but not limited to a professional wetland scientist, registered landscape architect, registered land surveyor, environmental scientist, geologist, hydrogeologist, or hydrologist when the complexity of the filing warrants specialized expertise.

5. NOI Application Requirements

5.1. The Commission will accept as an NOI under the Bylaw the MassDEP WPA NOI Form 3, filed under the WPA. Forms can be obtained at the Commission's office or online at the Commission's and MassDEP's websites.

5.2. Applicants must provide all information requested on the MassDEP WPA NOI Form 3.

5.3. NOIs must be submitted to MassDEP, either by mail or electronically on the MassDEP online permitting platform, but two (2) separate hard copies and an electronic copy of the NOI (in pdf format) must be submitted separately to the Commission.

5.4. NOIs which indicate they are "Buffer Zone Only" projects on the MassDEP WPA Form 3 shall be reviewed for AURA impacts under the Bylaw and these Regulations. Applications must include the proposed square footage of AURA alteration in the accompanying narrative and a description of Reasonable Options considered, including proposed avoidance, minimization, and mitigation strategies.

5.5. The Commission may require that supporting materials be prepared by a Competent Source, including, but not limited to a registered landscape architect, registered land surveyor, environmental scientist, wetland scientist, geologist, hydrogeologist, or hydrologist when the complexity of the filing warrants specialized expertise.

5.6. The Commission may require that supporting plans and calculations be prepared and stamped by a registered professional engineer (PE) when, in its judgement, the complexity of the proposed work warrants this certification. Examples of information likely to require certification by a PE include but are not limited to: hydraulic and hydrologic calculations; critical elevations and inverts; soils investigations and drawings for water control structures such as head walls, dams, and retention areas. - look to see if stamped PE plans required

5.7. The Commission reserves the right to administer requirements of this Section commensurate with the nature, scope, and type of the proposed project or activity.

6. Site Visits/Inspections

6.1. Site visits shall occur as necessary to obtain required information about the site and to monitor compliance with permit conditions. Site visits may occur without advance notice to an Applicant/permit holder if emergency conditions warrant. Under non-urgent conditions, the Commission shall give the Applicant or their representative advance notice of the site visit. Refusal to permit timely site inspections under an application or permit may result in Enforcement Action or permit denial.

6.2. Site Requirements Prior to Inspection: Before site inspections can be made by the Commission or the Commission's representative, the following conditions must be met (failure to meet these requirements may result in non-review and hence, delay of the project):

6.2.1. Submission of the Site Access Authorization Form, with the property owner's authorization for members of the Commission or its agent(s) to visit the site to obtain information needed to review the request or notice, or to monitor compliance with the conditions of a DOA, OOC, or other permit.-Authorizations shall remain in effect for the duration of the permit or upon a determination by the Commission that the permit conditions have all been satisfied, whichever comes sooner.

6.2.2. Stakes must be present indicating the corners of proposed houses or other proposed structures nearest to the Wetland Resource Area and areas to be cleared of vegetation.

6.2.3. Signage on the property indicating the parcel lot number or house number in a visible location.

6.2.4. Edges of all Resource Areas must be clearly delineated with numbered flags or stakes.

6.2.5. Name and contact information for the owner, Applicant, or their representative. A party familiar with the plans shall be present at the site inspection.

7. Fees

7.1. Preamble

7.1.1. Any person filing an RDA, NOI, or other application pursuant to the Bylaw shall, at the same time, pay a filing fee in accordance with the Filing Fee Schedule.

7.1.2. If the project is other than an addition or alteration to an existing one-family home, the Applicant shall agree, in writing, to pay the fees, costs, and expenses of an expert consultant if the Commission deems it necessary to review the RDA, NOI, ANRAD, or other Application.

7.1.3. Municipal, county, state, and federal projects are exempt from any fees other than consultant fees.

7.1.4. Fees shall be paid to the Conservation Commission at the time of application, by check or money order made payable to "Town of Shutesbury." Fees are non-refundable.

7.1.5. Fees for consulting services must be paid prior to the consultant’s work activities for the Commission, based on an estimate of cost for the consultant’s work.

7.1.6. Fees may be waived by the Commission as provided in Section 4 of the Bylaw. As provided in Section 4 of the Bylaw, the Commission shall waive the filing fee and costs of consulting services for an RDA filed by a person (such as an abutter) having no financial connection with the property which is the subject of the request.

7.1.7. As provided in Section 4 of the Bylaw, the fees specified below are in addition to fees required under the WPA.

7.2. Fee Schedules

If more than one of the following schedules applies to any project, then the schedule providing the lower fee shall be applied. Fees below are in addition to fees authorized by the WPA and 801 CMR 4.02.

APPLICATION	FEE	DETAILS
SPP (e.g., tree removals, buoys, small water-dependent structures; small sheds, small decks; small accessory structures to residential buildings)	$25.00	
RDA*	$75.00 $5.00	for the first 3 acres or less; for each additional acre or part
NOI* **See Appendix A for description of fee categories. Fees are for each activity in application.**		
NOI Category 1	$50.00	
NOI Category 2	$50.00	
NOI Category 3	$100.00	Per activity
NOI Category 4	$200.00	Per activity
NOI Category 5	$250.00	
Amended OOC	$100.00 or 50% of the original Bylaw filing fee, whichever is less	
Extension of OOC	$50.00 $300.00	Residential Other
Re-Issue OOC	$50.00	
COC	$50.00 $200.00	--if requested within 5 years of issuance date --if requested more than 5 years from issuance date
Duplicate attested COC	$50.00	
Emergency Certification	$75.00	Per certification Fee waived for municipal projects

ANRAD	$2.00 per linear foot	--not less than $100.00 --not more than $200.00 for activities associated with a single-family lot --not more than $2,000.00 for all other activities
53G Consultant Fee	Per estimate from consultant and subject to Commission approval	

*Fees for filings received after a project has commenced are double the fee listed.

8. Consultants and Consultant Fees

8.1. Upon receipt of any permit application (including but not limited to an RDA, NOI, SPP, or ANRAD), or at any point during the public hearing process, the Commission is authorized pursuant to the Bylaw and these Regulations, as well as, independently, under MGL Chapter 44, § 53G, to require an Applicant to pay a fee for the reasonable costs and expenses requested by the Commission for specific expert engineering and other consultant services deemed necessary by the Commission. The fee is called the "Consultant Fee." The exercise of discretion by the Commission in making a determination that outside consultant expertise is required shall be based on its reasonable finding that additional information or verification acquirable only through outside consultants would be necessary for the making of an objective decision. If so decided, the Commission will hire at the Applicant's expense a consultant(s) to review part or the entire submittal. Such consultant fees should be reasonable and/or appropriate to the work undertaken.

8.2. Consultant and Consultant Fees pursuant to MGL Chapter 44, § 53G

8.2.1. Purpose. As provided by MGL Chapter 44, § 53G, the Commission may impose reasonable fees for employing outside consultants, engaged by the Conservation Commission, for specific expert services. Such services shall be deemed necessary by the Commission to come to a final decision on an application submitted to the Conservation pursuant to the requirements of the Bylaw, the Conservation Commission Act (MGL Chapter 40, § 8C), or any other state or municipal statute, Bylaw, or Regulation, as they may be amended or enacted from time to time. The Commission may also impose fees for other consultant services, related to application review, or permit conditioning or monitoring, under any of the above-referenced laws or Regulations.

8.2.2. Special Account. Funds received pursuant to these rules shall be deposited with the Town of Shutesbury Treasurer, who shall establish a special account for this purpose. Expenditures from this special account may be made at the direction of the Commission without further appropriation as provided in MGL Chapter 44, § 53G. Expenditures from this account shall be made only in connection with a specific project or projects for which a consultant fee has been collected from the Applicant. Expenditures of accrued interest may also be made for these purposes.

8.3. Consultant Services. Specific consultant services may include but are not limited to Resource Area survey and delineation, analysis of Resource Area Values, hydrogeologic and drainage analysis, impacts on municipal conservation lands, and environmental or land use law. Services may also include on-site monitoring during construction or other services related to the project deemed necessary by the Commission. The consultant shall be chosen by, and report only to, the Commission and/or its representative.

8.4. Notice. The Commission shall give written notice to the Applicant of the selection of an outside consultant. Such notice shall state the identity of the consultant, the amount of the fee to be charged to the Applicant, and a request for payment of said fee in its entirety. Such notice shall be deemed to have been given on the date it is mailed (via USPS First-Class mail) or hand delivered. The Applicant shall incur no such costs or expenses if the application or request is withdrawn within five (5) days of the date notice is given.

8.5. Payment of Fee. The fee must be received prior to the initiation of consulting services. The Commission may request additional consultant fees, if necessary, when review requires a larger expenditure than originally anticipated or new information requires additional consultant services. Failure by the Applicant to pay the consultant fee specified by the Commission within ten (10) business days of the request for payment, or refusal of payment, shall be cause for the Commission to deny the application based on lack of sufficient information to evaluate whether the project meets applicable performance standards in the Bylaw and its Regulations. An appeal stops the clock on the above deadline; the countdown resumes on the first business day after the appeal is either denied or upheld. A denial for lack of information may be based solely on the lack of the third-party consultant review identified as necessary by the Commission. The Commission shall specify in its denial the nature of the information lacking which its chosen consultant would provide, e.g., the questions it needs answered. Failure by the Applicant to pay the consultant fee specified by the Commission within ten (10) business days of the request for payment shall be cause for the Commission to deny the permit application submitted under the Bylaw.

8.6. Appeals. The Applicant may appeal the selection of the outside consultant to the Shutesbury Select Board, who may only disqualify the outside consultant selected on the grounds that the consultant has a conflict of interest or does not possess the minimum required qualifications. The minimum qualifications shall consist of either an educational degree or three or more years of practice in the field at issue or a related field. Such an appeal must be in writing and received by the Shutesbury Select Board, and a copy received by the Commission, so as to be received within ten (10) days of the date consultant fees were requested by the Commission. The required time limits for action upon the application shall be extended by the duration of the administrative appeal.

8.7. Return of Unspent Fees. When the Commission’s review of a project is completed and an OOC, DOA, or ORAD is issued, any balance in the special account attributable to that project shall be returned within thirty (30) days. For the purpose of these Regulations, any person or entity claiming to be an Applicant's successor in interest shall provide the Commission with appropriate documentation. A final report of said account shall be made available to the Applicant or Applicant's successor in interest.

9. Minimal Conditions Regulating the Work

9.1. No activity may proceed until the Applicant has received all other permits required by law, including but not limited to any permit required by Health Inspections, Planning Board, Zoning Board of Appeals, MassDEP, NHESP approvals, and/or the Army Corps of Engineers.

9.2. The Commission shall receive forty-eight (48) hours advance notice, in writing, before the commencement of any activity within, or within the AURA of the Resource Area(s), including site preparation and construction. Email notification to the Commission email (concom@shutesbury.org) shall suffice for this requirement.

9.3. The location of siltation and erosion controls shall be approved by the Commission. Such controls shall remain in place and be maintained until all disturbed areas have been stabilized to the satisfaction of the Commission (for example 75% vegetation has grown in).

9.4. A copy of the Permit shall be always kept on-site during construction. All contractors and sub-contractors engaged during construction shall be provided with a copy of the Permit and should be prepared to produce said Permit upon request of the Commission or its agent.

9.5. Work shall proceed in strict accordance to referenced plan(s) in the Permit, and to information submitted in the Application.

9.6. All structures, facilities, and equipment as part of the project shall be continually operated and maintained to comply with the Permit. This provision applies specifically to all heavy equipment used on the project. Any leakage of oil, hydraulic fluid, gasoline, or any other pollutant must be cleaned up immediately, and the defective equipment responsible for said leaking shall be repaired immediately or taken off-site.

9.7. All work shall be completed in such a manner as to prevent eutrophication or sedimentation in wetlands, water bodies, or public or private water supplies.

9.8. Any substantial changes made or intended to be made in the plans shall require the Applicant to inquire of the Commission in writing whether the change is so substantial as to require the filing for a new Permit, or an amendment to the existing permit.

9.9. Requests for an extension of the Permit must be submitted, in writing, no less than thirty (30) days prior to the expiration date of that Permit.

9.10. Violation of any of these conditions shall be subject to an Enforcement Order under the Bylaw until said violation(s) has been corrected to the satisfaction of the Commission.

9.11. For OOCs, a COC shall be requested from the Commission upon completion of the proposed work. Said request shall be accompanied by a written statement from the professional who prepared the plan certifying compliance with all plans, as well as an “as -built” plan. On a case-by-case basis, the requirement for “as-built” certification may be waived by the Commission.

10. Forms

10.1. Unless otherwise specified by the Commission, the forms set forth by the MassDEP Regulations shall serve also as the forms to be used under the Bylaw.

10.2. Additional or different forms for the administration of these Regulations and the Bylaw may be adopted and revised from time to time by the Commission by administrative action of the

Commission. In the event of such administrative action, sample forms shall be made available by the Commission on the Commission's website or upon request.

Appendix A – Notice of Intent Fee Categories

(NOI fee calculations based upon the categories so defined under 310 CMR 10.03(7)(c))

Category 1 (Fee for each activity is **$50.00**):

a.) work on single family lot; addition, pool, etc.;
b.) site work without a house;
c.) control of nuisance vegetation;
d.) Resource Area improvement for ecological restoration purposes as allowed under 310 CMR 10.53(4), other than removal of aquatic nuisance vegetation, as allowed under 301 10.53(4);
e.) work on septic system separate from house;
f.) monitoring well activities other than construction of an access roadway thereto;
g.) new agricultural or aquaculture projects.

Category 2 (Fee for each activity is **$50.00**)

a.) construction of each single family house;
b.) parking lot;
c.) beach nourishment;
d) any activities reviewable under 310 CMR 10.53(3)(d) and (f) through (l), except for those subject to 310 CMR 10.03(7)(c)4.b. Where more than one activity is proposed within an identical footprint (e.g., construction of a sewer within the footprint of a new roadway), only one fee shall be payable ach crossing for driveway to single family house;
e) construction of each crossing for a driveway associated with an unattached single family house reviewable under 310 CMR 10.53(3)(e);
f) any point source discharge;
g) control of nuisance vegetation, other than on a single family lot, by removal, herbicide treatment or other means, reviewable under 310 CMR 10.53(4).
h) raising or lowering of surface water levels for flood control or any other purpose.
i) any other activity not described in Category 1, 3, 4, 5 or 6;
j) the exploration for (but not development, construction, expansion, maintenance, operation or replacement of) public water supply wells or wellfields derived from groundwater, reviewable under 310 CMR 10.53(3)(o);
k) test projects pursuant to 310 CMR 10.05(11).

Category 3 (Fee for each activity is **$100.00**)

a.) site preparation any development other than an unattached single family house(s), including the removal of vegetation, excavation and grading, where actual construction is not proposed in the Notice of Intent scope;
b.) construction of each building for any commercial, industrial, institutional, or apartment/condominium/townhouse-type development, any part of which is in a buffer zone or resource area. Any activities associated with the construction of said building, including associated site preparation and construction of retention/detention basins, septic systems, parking lots, utilities, point source discharges, package sewage treatment plants, and roadways and driveways other than those roadways or driveways reviewable under 310 CMR 10.53(3)(e), shall not be subject to additional fees if all said activities are reviewed under a single Notice of Intent.
c) construction of each roadway or driveway, not reviewable under 310 CMR. 10.53(3)(e), and not associated with construction of an unattached single family house.
d) any activity associated with the cleanup of hazardous waste, except as otherwise noted in Category 4, including excavation, destruction of vegetation, change in subsurface hydrology, placement of collection wells or other structures for collection and treatment of contaminated soil and/or water;

e) the development, construction, expansion, maintenance, operation, or replacement of (but not exploration for) public water supply wells or wellfields derived from groundwater, reviewable under 310 CMR 10.53(3)(o).

Category 4 (Fee for each activity is **$200.00**):

a) construction of each crossing for a limited project access roadway or driveway reviewable under 310 CMR 10.53(3)(e) associated with a commercial, industrial, or institutional development or with any residential construction (other than a roadway or driveway associated with construction of an unattached single family house);
b) construction, modification, or repair of a flood control structure such as a dam, reservoir, tidegate, sluiceway, or appurtenant work;
c) creation, operation, maintenance or expansion of a public or private landfill;
d) creation, operation, maintenance or expansion of a public or private sand and/or gravel operation including but not limited to excavation, filling, and stockpiling;
e) construction, reconstruction, expansion, or maintenance of any bridge, except to gain access to a single family house lot;
f) any alteration of a resource area(s) to divert water for the clean-up of a hazardous waste site, for non-exempt mosquito control projects, or for any other purpose not expressly identified elsewhere in this fee schedule;
g) any activities, including the construction of structures, associated with a dredging operation conducted on land under a waterbody, or waterway. If the dredging is directly associated with the construction of a new dock, pier or other structure identified in Category 5, only the Category 5 fee shall apply;
h) construction of, or the discharge from, a package sewage treatment plant;
i) any activities, including the construction of structures, associated with the assessment, monitoring, containment, mitigation, and remediation of, or other response to, a release or threat of release of oil and/or hazardous material reviewable under 310 CMR 10.24(7)(c)6. or 10.53(3)(q).

Category 5 (Fee for each activity is **$250.00**):

Construction, reconstruction, repair or replacement of docks, piers, revetments, dikes, or other engineering structures on Resource Areas, including the placement of rip rap or other material on Resource Areas.

Appendix B – Abbreviations for Shutesbury Bylaw Regulations

ANRAD – Abbreviated Notice of Resource Area Delineation

AURA – 100-foot Adjacent Upland Resource Area

BLSF - Bordering Land Subject to Flooding, the 100 year floodplain

BMPs – Best Management Practices

BOH – Board of Health

BVW – Bordering Vegetated Wetland

CMR – Code of Massachusetts Regulations

COC – Certificate of Compliance

DBH – Diameter at Breast Height

DOA – Determination of Applicability

EC – Emergency Certification

EO – Enforcement Order

EPA – U.S. Environmental Protection Agency

FACW – Facultative Wetland rating by the US Fish & Wildlife Service

ILSF – Isolated Land Subject to Flooding

IVW – Isolated Vegetated Wetland

LID – Low Impact Design

LUWW – Land Under Water Bodies and Waterways

MAHWL – Mean Annual High-Water Line

MassDEP – Massachusetts Department of Environmental Protection

MGL – Massachusetts General Laws

NFIP – National Flood Insurance Program

NHESP – Natural Heritage & Endangered Species Program

NOI – Notice of Intent

NOAA – National Oceanic and Atmospheric Administration

OOC – Order of Conditions

ORAD – Order of Resource Area Delineation

RDA – Request for Determination

RFA – Riverfront Area

SCC – Shutesbury Conservation Commission

SPP – Small Project Permit

USPS – United States Postal Service

VP – Vernal Pool

WPA – Wetlands Protection Act (state wetlands protection law)

WRT – Wetland Replication Translocation Methodology