



Arlington Conservation Commission

Date: Thursday, January 2, 2020

Time: 7:30 PM

Location: Town Hall Annex, Second Floor Conference Room

Agenda

1. Discussion
 - a. Discuss update to Arlington Regulations for Wetlands Protection
 - b. Discuss revisions to 2019 Annual Report to Town Meeting
 - c. Discuss 2020 goals for the Commission



Town of Arlington, Massachusetts

Regulatory Update

Summary:

Discuss update to Arlington Regulations for Wetlands Protection

ATTACHMENTS:

Type	File Name	Description
▢ Reference Material	Arlington_Wetland_Regs_2018-03-01_FINAL.pdf	Current regulations
▢ Reference Material	List_of_Possible_Updates_for_Arlington_Regulations_11212019.pdf	Draft List of Updates

REGULATIONS – WETLANDS PROTECTION

Section 1 - Introduction and Purpose.....	1
Section 2 - Jurisdiction.....	2
Section 3 - Burden of Going Forward and Burden of Proof.....	3
Section 4 - Definitions	3
Section 5 - Time Periods.....	9
Section 6 - Actions by Conservation Commission	10
Section 7 - Working Sessions	10
Section 8 - Determination of Applicability.....	11
Section 9 - Emergency Certification.....	12
Section 10 - Notice of Intent/Application for Permit.....	13
Section 11 - Filing Fees & Consultant Fees.....	14
Section 12 - Plan Requirements.....	16
Section 13 - Area to be Staked Prior to Site Inspection.....	18
Section 14 - Public Hearings.....	19
Section 15 - Issuance of Permit	20
Section 16 - Extension of Permit	21
Section 17 - Minor Amendment of Permit	21
Section 18 - Certificate of Compliance.....	23
Section 19 - Prohibited Materials	23
Section 20 - Banks	24
Section 21 - Vegetated Wetlands (Wet Meadows, Marshes, Swamps, and Bogs).....	25
Section 22 - Land Under Water Bodies (Under Any Stream, Pond or Lake).....	29
Section 23 - Land Subject to Flooding (Bordering and Isolated)	30
Section 24 - Vegetation Removal and Replacement.....	33
Section 25 - Adjacent Upland Resource Area	37
Section 26 - Vernal Pool and Its Associated 100-Foot No-Disturbance Zone	40
Section 27 - Riverfront Area.....	41
Section 28 - Variances	42
Section 29 - Areas of Critical Environmental Concern	43
Section 30 - Wildlife Habitat	43
Section 31 - Climate Change Resilience.....	43
Section 32 - Ecological Restoration Projects.....	44
Section 33 - Stormwater Management.....	44
Section 34 - Severability; Compliance With Court Decisions.....	44
Section 35 - Effective Date	45

Section 1 - Introduction and Purpose

A. Introduction. These regulations are promulgated by the Town of Arlington Conservation Commission pursuant to the authority granted to it under the Town of Arlington Wetlands Protection Bylaw (hereinafter referred to as the "Bylaw"). These regulations complement and implement the Bylaw and shall have the force of law upon their effective date. These regulations set forth additional definitions, regulations and performance standards necessary to protect the

values and/or intent of the Bylaw, protect additional resource areas and wetland values, and specify standards and procedures stricter than those of the Massachusetts Department of Environmental Protection's Wetlands Protection Act, G.L. c. 131, § 40 and implementing regulations at 310 CMR 10.00. Only those exemptions explicitly stated in the Act and state wetland regulations at 310 CMR 10.00 apply.

The portion of these regulations concerning consultants and consultant fees are also promulgated pursuant to the authority granted the Commission under G.L. c. 44, § 53G.

B. Purpose. The Bylaw sets forth a public review and decision making process by which activities affecting areas subject to protection under the Bylaw are to be regulated in order to ensure the protection of the following interests: public or private water supply, ground water supply, flood control, erosion control and sedimentation control, storm damage prevention, other water damage prevention, prevention of pollution, protection of surrounding land and other homes or buildings, wildlife protection, plant or wildlife habitat, aquatic species and their habitats, and the natural character or recreational values of the wetland resources (collectively, "Resource Area Values" or "Interests of the Bylaw"). The purposes of these regulations are to define and clarify that process by establishing standard definitions and uniform procedures by which the Arlington Conservation Commission shall carry out its responsibilities under the Bylaw.

Section 2 - Jurisdiction

- A. Areas subject to protection under the Bylaw and these regulations:
- (1) Any marsh, freshwater wetland, vernal pool, wet meadow, bog, swamp.
 - (2) Any river, stream, creek, pond, reservoir, or lake.
 - (3) Any bank of the areas set forth in A(1) or A(2) above.
 - (4) Any land under the areas set forth in A(2) above said waters.
 - (5) Any land bordering the areas set forth in A(1) or A(2) or A(3) above.
 - (6) Any riverfront area as hereinafter defined.
 - (7) Any land subject to flooding or inundation.
- B. Activities subject to regulation under the Bylaw and the provisions of these regulations:
- (1) Any activity proposed or undertaken which constitutes removing, filling, dredging, discharging into, building upon, degrading or otherwise altering any area specified in Subsection A of this Section is subject to regulation under the Bylaw and requires the filing of an application for permit.
 - (2) Any activity proposed or undertaken outside the areas specified in Subsection A above shall not be subject to regulation under the Bylaw unless, in the judgment of the Conservation Commission, said activity may result or has resulted in the removing, filling, dredging, discharging into, building upon, degrading or otherwise altering an area specified in Subsection A above. If anyone wishes to have the Conservation Commission determine whether an activity may be subject to regulation under the Bylaw, he or she shall submit a request for determination of applicability pursuant to Section 8(A) of these regulations.

- (3) For stormwater management systems constructed per Massachusetts Department of Environmental Protection's stormwater management policy (November 18, 1996) or standards (January 2, 2008), any activity proposed or undertaken within said stormwater management systems that includes the removal of less than 12 inches of sediment from a basin, water quality swale or constructed stormwater wetland (including forebays or other forms of pretreatment) is not subject to these regulations.

Section 3 - Burden of Going Forward and Burden of Proof

- A. The applicant shall have the burden of going forward with credible evidence from a competent source in support of all matters asserted pursuant to Subsection B below by the applicant in accordance with his or her burden of proof.
- B. The applicant shall have the burden of proving by a preponderance of the credible evidence from a competent source that the work in the application will not have a significant or cumulative effect upon the wetland values protected by the Bylaw. Failure to meet the burden of proof shall be cause for the Conservation Commission to deny the application for permit along with any work or activity proposed therein.

Section 4 - Definitions

- A. Except as otherwise provided in the Bylaw or these regulations, the definitions of terms in the Bylaw shall be as set forth in the Wetlands Protection Act, M.G.L. c. 131, Section 40, and its regulations, 310 C.M.R. 10.00.
- B. As used in these regulations, the following terms shall have the meanings indicated:
 - (1) ABUTTER - shall mean the owner of any land within 100 feet of the property line of the land where the activity is proposed, as determined by the most recent assessors' records including any land located directly across a street, river, stream or pond that is within 100 feet of the project's limits of work.
 - (2) ACTIVITY – On or in any area subject to protection by the Bylaw and its regulations: any form of draining, dumping, dredging, damming, discharging, excavating, filling or grading; the erection, reconstruction or expansion of any buildings or structures; the driving of pilings; the construction or improvement of roads and other ways; the changing of runoff characteristics; the intercepting or diverging of groundwater or surface water; the installation of drainage, sewage and water systems; the discharging of pollutants; the destruction of plant life; the cutting or removal of 20% or more of the growth or limbs of trees or vegetation; and any other changing of the physical characteristics of land or the physical or chemical characteristics of water.
 - (3) ADAPTATION or resilience to the impacts of climate means measures designed or intended to protect resource areas from the impacts of climate change and to protect the ability of resource areas to mitigate the impacts of climate change through providing the interests protected by the Bylaw (the resource area values and functions).
 - (4) ADJACENT UPLAND RESOURCE AREA - the area 100 feet horizontally lateral from the boundary of any of the following Resource Areas: marsh, freshwater wetland, vernal

pool, wet meadow, bog, swamp, bank, stream, creek, pond, reservoir, or lake, or resource area defined in Section 2.A(1) through (4).

- (5) ALTER - shall mean to change the condition(s) of any area subject to protection by the Bylaw and shall include but not be limited to one or more of the following actions upon the resource areas protected by this Bylaw::
- (a) fill, removal, excavation or dredging of soil, sand, gravel or aggregate material of any kind;
 - (b) changing of pre-existing drainage characteristics, flushing characteristics, salinity distribution, sedimentation patterns, flow patterns or flood storage retention areas;
 - (c) draining, disturbing or lowering of the water level or water table;
 - (d) the dumping, discharging or filling with any material which could degrade the water quality;
 - (e) driving of pilings, erection of buildings or structures of any kind;
 - (f) placing of any object or obstruction whether or not it interferes with the flow of water;
 - (g) destruction, extensive trimming (defined as 20% or more of limbs or growth), or removal of plant life, vegetation, or trees;
 - (h) changing of water temperature, biochemical oxygen demand, nutrient concentration or chemical concentration or other natural characteristics of the receiving water;
 - (i) any activities, changes or work which pollutes any stream or body of water, whether located in or out of the Town of Arlington;
 - (j) application of pesticides and herbicides;
 - (k) any activity, change or work which adversely effects groundwater or drinking water supply; or
 - (l) any incremental activity that has or may have a cumulative adverse effect on the Resource Area Values protected by the Bylaw
- (6) APPLICANT - shall mean a person filing a Request for Determination of Applicability or Notice of Intent or other application with the Commission.
- (7) AREA OF CRITICAL ENVIRONMENTAL CONCERN - An area so designated by the Secretary of Environmental Affairs of the Commonwealth of Massachusetts pursuant to regulations (301 C.M.R. 12.00), said designation being due to the particular environmental factors which impact upon the areas in question and which highlight the importance of each area so designated.
- (8) AREA SUBJECT TO PROTECTION UNDER THE BYLAW - Any area specified in Section 2(A). It is used synonymously with "resource area," each of which is defined in greater detail in these regulations.
- (9) BANK - shall be defined as the portion of the land surface which normally abuts and confines a water body, often between the mean annual low flow level and the first observable break in the slope or the mean annual flood level, whichever is lower;
- (10) BEST AVAILABLE MEASURES - The most up-to-date technology or the best designs, measures or engineering practices that have been developed and that are commercially or readily available.
- (11) BEST MANAGEMENT PRACTICES - Technologies, designs, measures or engineering practices that are in general use to protect the resource area values of the Bylaw.

- (12) **BORDERING** shall be defined to include any land within either of the following or the greater thereof:
- (a) 100 feet horizontally lateral from the edge of any marsh, freshwater wetland, vernal pool, wet meadow, bog, swamp, river, stream, creek, pond, reservoir, or lake; or
 - (b) within the maximum lateral extent of the water elevation of the statistical 100 year frequency storm.
- (13) **BOUNDARY** - The boundary of an area subject to protection under the Bylaw. A description of the boundary of each area is found in the appropriate section of these regulations or in the Bylaw.
- (14) **BUFFER ZONE** – see definition for **ADJACENT UPLAND RESOURCE AREA**;
- (15) **BYLAW** – Article 8 of Title V of the Bylaws of the Town of Arlington, Massachusetts, entitled “Wetlands Protection”.
- (16) **BYLAW INTERESTS** – are defined in Section 1, above; also known as Resource Area Values
- (17) **CALIPER** – Diameter of a tree trunk (in inches) measured six inches above the ground for trees up to and including four-inch diameter, and 12 inches above the ground for larger trees.
- (18) **CERTIFICATE OF COMPLIANCE** - A written determination by the Conservation Commission as to whether work or a portion thereof has been completed in accordance with the permit issued under the Bylaw governing said work.
- (19) **CONDITIONS** - Those requirements set forth in a written permit issued by the Conservation Commission for the purpose of permitting, regulating or prohibiting any activity that removes, fills, dredges or alters an area subject to protection under the Bylaw.
- (20) **CONSERVATION COMMISSION** or **COMMISSION** - That body in Arlington comprised of members lawfully appointed pursuant to M.G.L. c. 40, Section 8C.
- (21) **CREEK** - The same as "stream."
- (22) **CUMULATIVE EFFECT** - shall mean an effect that is significant when considered in combination with other activities that have occurred, are going on simultaneously, or that are likely to occur, whether such other activities have occurred or are contemplated as a separate phase of the same project, such as the build-out of a subdivision or an industrial park, or unrelated but reasonably foreseeable actions, including other development projects that are currently under construction, under review or that may be expected to come forward.
- (23) **DATE OF ISSUANCE** - The date a permit, order, or determination is mailed, as evidenced by a postmark, or the date it is hand-delivered.
- (24) **DATE OF RECEIPT** - The date of delivery to an office, home or usual place of business by mail or hand delivery.
- (25) **DETERMINATION**:
- (a) **DETERMINATION OF APPLICABILITY** - A written finding by the Conservation Commission after a public hearing as to whether a site or the work proposed thereon is subject to the jurisdiction of the Bylaw.
 - (b) **DETERMINATION OF SIGNIFICANCE** - A written finding by the Conservation Commission, after a public hearing, 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 interests identified in and protected by the Bylaw and these regulations.

- (c) NOTIFICATION OF NONSIGNIFICANCE - A written finding by the Conservation Commission, after a public hearing, 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 interests of the Bylaw.
- (26) DBH (“Diameter at Breast Height”) – 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.
- (27) DREDGE - To deepen, widen or excavate, either temporarily or permanently.
- (28) EXTENSION PERMIT - A written extension of time within which the authorized work shall be completed.
- (29) EXTREME WEATHER EVENT means weather at the extremes of the historical distribution lying in the outermost 10 percent of a place’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.
- (30) FILL - To deposit any material so as to raise the elevation of land surface or ground, either temporarily or permanently.
- (31) FLOOD CONTROL - The prevention or reduction of flooding and flood damage, both as currently expected to occur and as projected to occur based on the best available data regarding the impacts of climate change.
- (32) GROUNDWATER - shall mean all subsurface water contained in natural geologic formations or artificial fill including soil water in the zone of aeration. Activities within 100 feet of resource areas shall not significantly alter the existing quality or elevation of naturally occurring groundwater.
- (33) IMMINENT RISK TO PUBLIC HEALTH AND SAFETY - means the vegetation is an imminent risk to public health or safety or property as confirmed in writing and submitted to the Commission by the Arlington Tree Warden, Fire Department Representative, Public Safety Officer, or a certified arborist.
- (34) IMPACTS OF CLIMATE CHANGE - mean, but are not necessarily limited to, (i) extreme heat (ii) the timing, frequency, intensity, and amount of precipitation, (iii) storm surges and rising water levels, (iv) increased intensity and/or frequency of storm events or extreme weather events, and (v) frequency, intensity and duration of droughts.
- (35) IN – or WITHIN an area subject to protection under the Bylaw means in, through, under, over, cantilevered over, shading; does not require physical touching of said area subject to protection. With respect to structures, “In” is measured from the drip-line of the roof or foundation or footing, whichever is closer to the resource area.
- (36) INTERESTS IDENTIFIED IN THE BYLAW - Those interests specified in Section 1 of the Bylaw and Section 1(B) of these regulations. Also called Bylaw Interests or Resource Area Values.
- (37) ISSUING AUTHORITY - The Arlington Conservation Commission.
- (38) LAND SUBJECT TO FLOODING OR INUNDATION - shall mean the land within the estimated maximum lateral extent of flood water which will theoretically result from the statistical 100-year frequency storm; said boundary shall be that determined by reference to the most recently available flood profile data prepared for Arlington within which the work is proposed under the National Flood Insurance Program (“NFIP”).

Where NFIP data are unavailable or deemed by the Commission to be outdated or inaccurate or not reflecting current conditions, the boundary of said land shall be based on the maximum lateral extent of flood water which has been observed or recorded, or other evidence presented and considered by the Commission. Said land shall also include isolated areas which frequently or seasonably hold standing water; such areas may or may not be characterized by wetland vegetation or soil characteristics.

- (39) LAKE - Any open body of fresh water with a surface area of 10 acres or more, and shall include great ponds.
- (40) LAND SUBJECT TO FLOODING - Defined in Section 23.
- (41) LAND UNDER WATER BODIES AND WATERWAYS - The bottom of or land under the surface of a creek, river, stream, pond or lake. Land under water bodies is further defined in Section 22.
- (42) 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), and the lots combined are used for the same purpose or enterprise, the Commission may consider the lots as a single LOT.
- (43) MARSH, FRESHWATER WETLAND, SWAMP, WET MEADOW, BOG - Defined in Section 21.
- (44) MEADOW (or WET MEADOW) - Defined in Section 21.
- (45) NOTICE OF INTENT - The written notice filed by any person intending to remove, fill, dredge or alter an area subject to protection under the Massachusetts Wetlands Protection Act, M.G.L. c. 131, Section 40, or the Bylaw, or both.
- (46) ORDER - An order of conditions, superseding order or final order, whichever is applicable, issued pursuant to M.G.L. c. 131, Section 40 or the Bylaw, or both.
- (47) OWNER OF LAND ABUTTING THE ACTIVITY - The owner of land sharing a common boundary or corner with the site of the proposed activity in any direction, including land located directly across a street, way, creek, river, stream, brook or canal.
- (48) PERMIT - shall mean the document issued by the Conservation Commission pursuant to this Bylaw which allows work in accordance with conditions set by the Commission in the resource areas protected by this Bylaw; also see “Order” in this definition section.
- (49) PERMIT DENIAL – shall mean the document issued by the Conservation Commission pursuant to the Bylaw which disallows proposed work.
- (50) PERSON - shall include any individual, group of individuals, associations, partnerships, corporations, business organizations, trust, estate, Commonwealth of Massachusetts when subject to town Bylaws, any public or quasi-public corporation or body when subject to town Bylaws or any other legal entity, including the Town of Arlington or its legal representative, agents or assigns.
- (51) PERSON AGGRIEVED - Any person who, because of an act of failure to act by the Conservation Commission, may suffer an injury in fact which is different either in kind or magnitude from that suffered by the general public and which is within the scope of the interests identified in the Bylaw.
- (52) PLANS - Such data, maps, engineering drawings, calculations, specifications, schedules and other materials, if any, deemed necessary by the Conservation Commission to describe the site and/or work to determine the applicability of the Bylaw or to determine the impact of the proposed work upon the interests identified in the Bylaw.

- (53) POND - Any open body of fresh water, either naturally occurring or man-made by impoundment or excavation, which is never without standing water due to natural causes, except in periods of extended drought. For purposes of this definition, extended drought shall mean any period of four or more months during which the average rainfall for each month is 50% or less of the ten-year average for that same month. Basins or lagoons which are part of wastewater treatment plants, swimming pools or other impervious man-made retention basins shall not be considered ponds.
- (54) PREVENTION OF POLLUTION - The prevention or reduction of chemicals (e.g., nutrients, hydrocarbons, solvents, metals, vapors) known or suspected of causing harm to humans, plants, or animals via exposure to any media (air, water, soil, sediment)
- (55) 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.
- (56) PROJECT LOCUS - The Lot on which an applicant proposes to perform an activity subject to regulation under the Bylaw
- (57) PROJECT SITE - the area within the Project Locus that comprises the limit of work for activities, including but not limited to, the dredging, excavating, filling, grading, the erection, reconstruction or expansion of a building or structure, the driving of pilings, the construction or improvement of roads or other ways, and the installation of drainage, stormwater treatment, environmentally sensitive site design practices, sewage and water systems.
- (58) PROTECTION OF FISHERIES - Protection of the capacity of an area subject to protection under the Bylaw to prevent or reduce contamination or damage to fish and to serve as their habitat and nutrient source.
- (59) PROTECTION OF WILDLIFE - The protection of any plant or animal species, including but not limited to those listed as endangered, threatened or special concern, or on the Watch List by the Massachusetts Natural Heritage Program; 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 set forth in these regulations.
- (60) 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 M.G.L. c. 111, Section 160 by the Division of Water Supply of the Department of Environmental Protection or shown to have a potential for public use.
- (61) QUORUM – refers the number of Commissioners who must be present before business may be transacted; here, it shall mean a majority of the number of Commissioners then in office.
- (62) REMOVE - To take away any type of material, thereby changing the elevation of land surface or ground, either temporarily or permanently.
- (63) REQUEST FOR DETERMINATION OF APPLICABILITY - A written request made by any person to the Conservation Commission for a determination as to whether a site or work thereon is subject to the Bylaw.
- (64) RESILIENCE – ability to minimize the negative impacts of climate change; to build capability and ability of a resource area to minimize negative impacts of climate change.

- (65) RESOURCE AREA - Is used synonymously with "area subject to protection under the Bylaw," each one of which is listed in the Bylaw and in Section 2 of these regulations.
- (66) RESOURCE AREA ENHANCEMENT – with the Commission's prior approval: removal or management of invasive species; removal of man-made debris, garbage, or trash; stabilization of bank or other resource area; or planting of non-invasive species of vegetation.
- (67) RIVER - shall mean any natural flowing body of water that empties to any ocean, lake, pond, reservoir, stream, or other river.
- (68) RIVERFRONT AREA - shall mean the area of land between a river's mean annual high water line and a parallel line measured 200 feet horizontally landward of the mean annual high water line.
- (69) SIGNIFICANT – shall mean plays a discernable role; e.g., a resource area is significant to an interest identified in the Act when it plays a role in the provisions or protection, as appropriate, of that interest.
- (70) 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.
- (71) STREAM - A body of running water, including brooks and creeks, which moves in a definite channel in the ground due to hydraulic gradient, and includes streamlets and rivulets. A portion of a stream may flow through a culvert or beneath a bridge. Such a body of running water which does not flow throughout the year (i.e., which is intermittent) is a stream.
- (72) STRUCTURE – means a combination of materials or things arranged or constructed for permanent or temporary occupancy, shelter, or use, such as a building, bridge, trestle, wireless communications facility, tower, rip rap associated with stormwater outfalls, framework, retaining wall, tank, tunnel, tent, shed, stadium, reviewing stand, platform, swimming pool, sports court, shelters, piers, wharves, bin, fence, sign, or the like.
- (73) TREE REMOVAL – Any act that will cause a tree to die within a three-year period.
- (74) VEGETATED WETLANDS - Defined in Section 21.
- (75) WITHIN – See IN above.
- (76) WILDLIFE - Any non-domesticated mammal, bird, reptile, amphibian, fish, mollusk, arthropod or other invertebrate other than a species of the Class insects which has been determined by the Commonwealth of Massachusetts or any agency thereof to be a pest whose protection under the provisions of the Bylaw would be a risk to man.
- (77) WILDLIFE HABITAT - shall mean the area being used by or necessary to provide breeding or nesting habitat, shelter, food and water for any animal species.
- (78) WORK – shall mean the same as "activity."

Section 5 - Time Periods

All time periods of 10 days or less specified in the Bylaw and these regulations shall be computed using 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 10th business day thereafter. All other time periods specified in the Bylaw and regulations shall

be computed on the basis of 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.

Section 6 - Actions by Conservation Commission

A. Where the Bylaw states that a particular action (except receipt of a request or notice) is to be taken by the Conservation Commission, that action is to be taken by more than half the members present at a meeting of at least a quorum. A quorum is defined as a majority of the members then in office.

B. Where the Bylaw states that a determination, permit, or notification or certificate of compliance shall be signed and issued by the Conservation Commission, that action is to be taken by the majority of the quorum present at a public meeting or hearing, or by a majority of the members then in office who need not convene as a body in order to sign said permit or notification, provided that the Commission met pursuant to the Open Meeting Law, M.G.L. c. 30A, Sections 18 through 25, when voting on the matter.

C. Where the Bylaw states that the Conservation Commission is to receive a request or notice, Conservation Commission means a member of the Conservation Commission or an individual designated by the Conservation Commission to receive such request or notice.

Section 7 - Working Sessions

When the Commission has time available, as a matter of courtesy, it may, but is not required, to 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.

Any working session shall be held in accordance with the Open Meeting Law, M.G.L. c. 30A, Sections 18 – 25.

For any working session, notwithstanding the Plan requirements in Section 12, the following information at a minimum must be provided (at the working session):

- (1) a map or plan showing the location of the proposed work;
- (2) photographs (minimum 5" x 7" size) of the area of the proposed work; and
- (3) a sketch of the area of the proposed work, showing existing conditions (structures, approximate locations of actual or potential resource areas).

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 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 his or her own risk.

Section 8 - Determination of Applicability**A. Requests for determination of applicability.**

- (1) Any person who desires a determination as to whether the Bylaw applies to land, or to work that may affect an area subject to protection under the Bylaw, may submit to the Conservation Commission electronically and by certified mail, regular mail, or hand delivery a written request for a determination of applicability and other application materials in accordance with the submittal requirements set forth in the filing guidelines for requests for determination of applicability provided in these regulations. Said person shall also provide the number of paper copies as set forth in the filing guidelines of the Commission.
- (2) Simultaneously with filing the Request for Determination of Applicability, the applicant shall provide notification to each abutter by hand delivery or certified mail, return receipt requested, first class mail, postage prepaid. An affidavit specifying how and when abutter notice was made shall accompany the RDA. The contents of the abutter notification shall be specified by the Commission and shall, at a minimum, provide a brief description of the proposed work (if any), identify resource areas involved, list the location (street address, assessors lot and map identifiers), specify where a copy of the request may be obtained, and the date, time, and place of the hearing.
- (3) Said request shall include sufficient information to enable the Conservation Commission to find and view the area and determine whether the proposed work will alter an area subject to protection under the Bylaw.
- (4) A request for determination of applicability shall include certification that the owner of the area subject to the request, if the person making the request is not the owner, has been notified in writing via certified mail, return-receipt requested that a determination is being requested under the Bylaw.
- (5) A request for determination of applicability shall be filed with the Commission no less than 10 days prior to the Commission's next meeting and simultaneously copies of the request for determination of applicability shall be hand delivered or mailed to each Commission member (including associate members). Failure to meet such filing and distribution deadline shall be cause for the Commission to continue or defer discussion of the request for determination to the following meeting.

B. Determination of applicability.

- (1) Within 21 days after the date of receipt of the request for a determination of applicability, the Conservation Commission shall hold a public hearing on the request for a determination of applicability. Notice of the time and place of the public meeting at which the determination will be made shall be given by the Conservation Commission at the expense of the person making the request not less than five business days prior to such meeting, by publication in a newspaper of general circulation in the Town of Arlington, and by mailing a notice to the person making the request, the property owner if not the applicant. The Commission will forward the notice of this hearing to the Town Manager, Board of Selectmen, Town Clerk, Planning Department, Town Counsel, Department of Public Works, Town Engineer, Zoning Board of Appeals, Board of

Health, Building Inspector, and the Redevelopment Board. Notice shall also be given in accordance with the Open Meeting Law, M.G.L. c. 30A, Sections 18 - 25.

Said determination shall be signed and issued by the Conservation Commission, and copies thereof shall be sent by the Conservation Commission to the person making the request and to the owner within 21 days of the close of the public hearing or any continuances thereof. Said determination shall be valid for three years from date of issuance and may not be extended or renewed.

- (2) The Conservation 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 as defined in Section 2(A) above. The Conservation Commission shall find that the Bylaw applies to the work on the portion thereof, if it is an activity subject to the regulations under the Bylaw as defined in Section 2(B) above.
- (3) An application for permit shall be filed in the event of a positive determination, and all of the procedures set forth in Section 10 shall apply.
- (4) Request for Determination of Applicability vs. Notice of Abbreviated Resource Area Delineation. No Request for Determination of Applicability or Determination of Applicability shall be used to evaluate or confirm the delineation of any Resource Area.

Section 9 – Emergency Certification

A. Any person requesting permission to perform an emergency project, or within 24 hours of commencing an emergency project, shall specify in writing why the project is necessary for the protection of the health or safety of the citizens of the Town and what agency of the Commonwealth (or subdivision thereof) or Town entity is to perform the project or has ordered the project to be performed. Work may not proceed unless the Commission or its Administrator has certified the work to be necessitated by an emergency. In no case shall work or alteration by such certification extend beyond the minimum amount of work and time necessary to abate the emergency. If the project is certified to be an emergency by the Conservation Commission, its Administrator, its Chair or Vice Chair, or the Department of Environmental Protection, the certification shall include a description of the work which is to be performed and shall not include work beyond that necessary to abate the emergency. If practicable, a site inspection shall be made prior to certification. If issued by the Conservation Administrator, the emergency certification must be ratified at the next meeting of the Conservation Commission.

B. An emergency certification may be issued by the Conservation Commission Chair, Vice Chair, or Administrator and shall be issued only for the protection of public health or safety.

C. The time limitation for performance of emergency work shall not exceed 30 days, or 60 days for Immediate Response Actions approved by the Bureau of Waste Site Cleanup (BWSC) of the Department of Environmental Protection in accordance with the provisions of 310 CMR 40.0410. The emergency certification may be extended for an additional 15 days only for good cause.

D. In appropriate circumstances, the Commission may require that within 14 days of issuance of an emergency certification, a Notice of Intent/permit application shall be filed by the recipient of

the emergency certification with the Conservation Commission for review as provided by the Bylaw and these Regulations.

E. Upon failure to meet the requirements of this section and other requirements of the Conservation Commission, the Conservation Commission may, after notice and a public hearing, revoke or modify an emergency certification and order restoration and mitigation measures.

Section 10 – Notice of Intent/Application for Permit

A. Any person who proposes to do work or activity that will remove, fill, dredge or otherwise alter any area subject to protection under the Bylaw shall submit an application, called a Notice of Intent, for a permit on forms specified by the Conservation Commission and in conformance with the plan requirements in Section 12. Simultaneously with filing the Notice of Intent with the Commission or its Agent, an applicant shall provide an electronic copy of the application to the Commission and provide the number of paper copies specified by the Conservation Administrator, and said paper copies shall be provided with envelopes with sufficient first-class postage, prepaid, for mailing (by the Administrator) of such copies to Commission members. Failure to provide the specified number of paper copies or electronic copies shall be grounds for the Commission to continue the public hearing without the applicant's consent. Simultaneously with filing the Notice of Intent, the applicant shall provide notification to each abutter by hand delivery or certified mail, return receipt requested. The contents of the abutter notification shall be specified by the Commission and shall, at a minimum, provide a description of the proposed work, location (street address and assessor's map and lot identifier), where a copy of the request may be obtained, and the date, time, and location of the hearing.

B. Upon receipt of the application materials referred to in Subsection A above, the Conservation Commission shall assign a file number, which file number shall be that issued by the Department of Environmental Protection ("DEP") for a Notice of Intent also submitted under the Wetlands Protection Act. The DEP will notify the applicant of the file number. The designation of file number shall not imply that the plans and supporting documents have been accepted or judged adequate for the issuance of a permit and does not prevent the Commission from requesting additional information at a later time. For a Notice of Intent not also filed under the Wetlands Protection Act, the Commission shall issue a file number.

C. 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 the detail, provided also that in such circumstances the Notice of Intent shall also contain a description and calculation of peak flow 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.

D. A public hearing shall be held by the Conservation Commission with 21 days of receipt of the complete Notice of Intent.

E. An Abbreviated Notice of Resource Area Delineation may be filed to confirm the delineated boundary of Vegetated Wetland or other Area Subject To Protection Under the Bylaw on the

site. If utilized, an applicant must file an Abbreviated Notice of Resource Area Delineation prior to filing a Notice of Intent. Alternatively, the boundary of a Resource Area may be determined through the filing of a Notice of Intent. The procedures for a Notice of Intent shall be used for an Abbreviated Notice of Resource Area Delineation. Consistent with Section 6 of the Bylaw, “Applicant’s Obligation”, the applicant shall have the burden of proving by a preponderance of the credible evidence from a competent source that the delineation of Vegetated Wetland or other Area Subject To Protection Under the Bylaw is accurate.

F. If the Commission determines that the applicant incorrectly or incompletely delineates 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 Order of Conditions within 21 calendar days, specifying each Resource Area that is incorrectly or incompletely delineated. The Commission shall have the authority to deny any proposed Resource Area delineation when: 1) the application is incomplete; 2) the delineation is incorrect; or 3) the Commission requires additional information that is not provided by the applicant.

G. Review period. Resource area boundary delineations shall be reviewed only between April 1 and December 1 of each year. Delineations may be reviewed at the sole discretion of the Commission between December 1 and April 1, and shall be reviewed only when site conditions are such that the Commission believes it can adequately review the relevant resource area indicators (e.g., soils, vegetation, topography, hydrology).

Section 11 - Filing Fees & Consultant Fees

A. Filing Fees

(1) Rules:

- (a) Permit fees are payable at the time of application and are nonrefundable.
- (b) Permit fees shall be calculated by the Conservation Commission per the Bylaw.
- (c) Town, county, state, and federal projects are exempt from fees.
- (d) Upon request and demonstration of a compelling reason to do so, which circumstances the Commission anticipates shall be rare, the Commission in its sole discretion may grant a waiver or variance from, or reduction of, Permit fees.

(2) These filing fees are in addition to the filing fees charged under M.G.L. c. 131, Section 40, the Wetlands Protection Act.

(3) The requirements of this section shall be commensurate with the nature, scope, type, and cost of the proposed project or activity.

(4) Fees:

- (a) Fees are payable at the time of filing the application and are non-refundable.
- (b) Fees shall be calculated per schedule below.
- (c) Town, County, State, and Federal Projects are exempt from fees.
- (d) These fees are in addition to the fees paid under M.G.L. Ch. 131, s.40 (the

Wetlands Protection Act).

(Category)

(R1) Request for Determination of Applicability: \$150

(N1) Minor project: \$200

(house addition, tennis court, swimming pool, utility work, work in, on or affecting any body of water, wetland or floodplain).

(N2) Single Family Dwelling: \$600

(N3) Multiple dwelling structures: \$600 + \$100 per unit all or part of which lies within 100 feet of wetlands or within land subject to flooding.

(N4) Commercial, industrial, and institutional projects:

\$800 + 50¢/s.f. wetland disturbed; 2¢/s.f. land subject to flooding; 100 s.f. buffer disturbed.)

(N5) Subdivisions: \$600 + \$4/l.f. feet of roadway sideline within 100 ft. of wetlands or within land subject to flooding

(N6) Other Fees: copies, printouts: per public records law

(N7) Minor project change: \$50

(N8) Work on docks, piers, revetments, dikes, and similar: \$4 per linear foot

(N9) Resource boundary delineation (ANRAD): \$1 per linear foot

(N10) Certificate of Compliance (COC or PCOC): No charge if before expiration of Order, \$200 if after expiration date of Order.

(N11) Amendments: \$300 or 50% of original local filing fee, whichever is less

(N12) Extensions:

a. Single family dwelling or minor project: \$100.

b. Other: \$150.

B. Consultant Fees

Upon receipt of a Notice of Intent, Abbreviated Notice of Resource Area Delineation, or Request for Determination of Applicability, or at any point during the hearing process, the Commission is authorized to require an applicant to pay a fee for the reasonable costs and expenses borne by the Commission for specific expert engineering and other consultant services deemed necessary by

the Commission to come to a final decision on the application. The fee is called the “Consultant Fee.”

This Consultant Fee is pursuant to Bylaw § 16(B)(11) and independent from the Commission’s “Rules for Hiring Outside Consultants” pursuant to G.L. Ch. 44, § 53G adopted June 21, 2007. The specific consultant services may include, but are not limited to, performing or verifying the accuracy of a resource area survey and delineation, analysis of resource area functions, including but not limited to wildlife habitat evaluations, hydrogeologic and drainage analysis, and advice on environmental or land use law and legal issues.

The Commission may require the payment of the Consultant Fee at any point in its deliberations prior to a final decision. Failure by the applicant to pay the Consultant Fee specified by the Commission within five (5) business days of the request for payment shall be cause for the Commission to deny issuance of a permit or other requested action.

The applicant shall pay the fee to be put into a revolving fund, which may be drawn upon by the Commission for specific consultant services approved by the Commission at one or more of its public meetings. The consultant shall be chosen by, and report only to, the Commission or its designee.

The exercise of discretion by the Commission in making its determination to require payment of a Consultant Fee shall be based upon its reasonable finding that additional information acquirable only through outside consultants would be necessary for the making of an objective decision.

The Commission shall return any unused portion of the Consultant Fee to the applicant unless the Commission decides at a public meeting that other further or additional or different services of the consultant are necessary to make an objective decision. Any applicant aggrieved by the imposition of or size of the Consultant Fee, or any act related thereto, may appeal according to the provision of the Massachusetts General Laws.

Section 12 - Plan Requirements

A. Plans shall describe the proposed activity and its effect on the environment. Due regard shall be shown for all natural features such as large trees, watercourses and water bodies, wildlife habitat and similar community assets.

- (1) The following items are set out as a minimum standard. The applicant may submit, or be required to submit, any further information that will assist in the Commission’s review and that is deemed necessary to determine the proposed effect on the interests protected by the Bylaw. The Conservation Commission may waive any of these plan requirements it deems insignificant or irrelevant for a particular project.
- (2) An eight-and-one-half-inch-by-eleven-inch reproduction of the USGS quadrangle sheet showing the project locus, and in the case where the project requires two or more plans to show the locus, an eight-and-one-half-inch-by-eleven-inch sheet clearly identifying the proposed site and work in addition to the labeled boundaries of the resource areas.

B. Plan content.

- (1) The following information shall be provided:
 - (a) The names and addresses of the record owner(s), the applicant(s) and of all abutters, as determined by the most recent local tax list, unless the applicant shall have a more recent knowledge of such abutters.
 - (b) Description of any alteration to flood storage capacity on the site. Include calculations and watershed maps if necessary.
 - (c) Soil characteristics in representative portions of the site.
 - (d) The Commission may in its sole discretion require the applicant to provide a runoff plan and calculations using the Rational Method or “the Cornell” method, and based on the ten-year, fifty-year and one-hundred-year-flood frequency event period. Calculations shall show existing and proposed runoff conditions for comparative purposes.
 - (e) Methods to be used to stabilize and maintain any embankments facing any wetlands, or show slope on plans of less than or equal to 3 to 1.
 - (f) Methods to control erosion during and after construction.

C. Plan specifications.

- (1) Drawings for a Request for Determination of Applicability must be to scale. All other application plans (e.g., for Notices of Intent) shall be drawn to scale (one inch equals 40 feet maximum) with the title designating the name of the project, location, the name(s) of the person(s) preparing the drawings and the date prepared, including all revision dates.
- (2) The Commission may require that plans and calculations be prepared and stamped by a registered professional engineer or a registered land surveyor of the Commonwealth of Massachusetts when, in the Commission’s judgment, the proposed work warrants such professional certification. The Commission may also require preparation and submission of supporting materials by other professionals including, but not limited to, registered landscape architect, environmental scientist, geologist or hydrologist when in its judgment the complexity of the proposed work and/or the wetland values of the Resource Areas warrants the relevant specialized expertise. Submitted materials may be used by the Commission to evaluate the effects of the proposed project/work on wetland values and compliance with these regulations. Submission of requested materials does not imply approval of the project.
- (2) Drawings must include the boundary and location of all Resource Areas protected by the Bylaw on the project site and within 100 feet, regardless of whether or not the applicant believes the work is subject to M.G.L. c. 131, Section 40, the Wetlands Protection Act or the Arlington Wetlands Bylaw
- (3) Alterations.
 - (a) Drawing must include a delineation of all alterations proposed in or adjacent to all Resource Areas as indicated below:
 - i. Areas to be dredged;
 - ii. Areas to be filled;
 - iii. Areas to be altered in any other way;
 - (b) All alterations should be clearly explained in text or footnotes.

- (4) All drawings shall show the distance twenty-five (25), fifty (50) and one-hundred feet from the resource areas listed in Section 2.A(1) through (3) as well as the Riverfront Area.
- (5) Calendar dates of measurements, samplings, contours and so forth should appear with such data. Datum shall be stated in NAVD 88 base. The contour interval shall be no greater than two feet.
- (6) Indicate existing and final contours and contour interval used, including pond bottom and stream invert contours.
- (7) Indicate locations and elevations of sills and bottom of foundation(s) and septic system(s) (if any).
- (8) Indicate soil characteristics in representative parts of property, including depth of peat and muck in wetlands.
- (9) Indicate locations, sizes and slopes of existing and proposed culverts and pipes.
- (10) Include cross-section of all wetlands, showing slopes, bank and bottom treatments for wetland creation or replication.
- (11) For projects in land subject to flooding, include existing and proposed water storage capacity of the property, including calculations and data on which the capacity is based. If filling is proposed, determine the effect of loss of storage on downstream channels and culverts.
- (12) Indicate location and elevation of bench mark used for survey.
- (13) Indicate existing trees, stone walls, fences, buildings, historic sites, rock ridges and outcroppings.
- (14) Indicate invert elevations on catch basins.
- (15) Indicate proposed on-site pollution control devices, such as hooded catch basins, oil absorption pillows, detention/retention basins, flow dissipaters or vegetative buffers.
- (16) Show locations/details of erosion control devices.
- (17) Assessors Map and Lot number(s) shall be shown.
- (18) If location is within an Area of Critical Environmental Concern, it shall be so indicated on the plan.

D. The requirements of this section shall be met commensurate with the nature, scope, type, and cost of the proposed project or activity

Section 13 - Area to be Staked Prior to Site Inspection

A. Before site inspections can be made by the Conservation Commission or the Commission's agent, the following conditions must be met:

- (1) Stakes shall be provided as follows:
 - (a) Stakes indicating the corners of houses or other structures nearest the wetland resource area.
 - (b) Stakes indicating the septic tank and the leaching field location.
 - (c) Stakes indicating the limit of work.
- (2) Lot number or house number should be posted at location.
- (3) Edges of all resource areas shall be delineated. (Please refer to rules and regulations for definitions.)
- (4) Directions shall be made available to the Commission to locate property.

- B. Failure to have the lot staked may result in no review and thus delay of a project.
- C. Upon completion of staking, the Conservation Commission shall be notified and a site inspection shall be arranged.
- D. The requirements of this section shall be met commensurate with the nature, scope, type, and cost of the proposed project or activity.

Section 14 - Public Hearings

A. A public hearing shall be held by the Conservation Commission with 21 days of receipt of the complete Notice of Intent, and shall be advertised by the Commission at the applicant's expense in accordance with the Bylaw (Section 5) and the requirements of the Open Meeting Law, M.G.L. c. 30A, Sections 18 – 25. Abutter notification as detailed above shall be done by and at the expense of the applicant at the time of filing the Request for Determination of Applicability, Abbreviated Notice of Resource Area Delineation, Abbreviated Notice of Intent or Notice of Intent.

B. Continued hearings.

(1) Public hearings may be continued as follows:

- (a) Without the consent of the applicant to a date certain announced at the hearing should the applicant or the applicant's representative fail to provide at least ten (10) calendar days prior to that scheduled meeting/hearing sufficient abutter notification, newspaper notification, an electronic copy or a sufficient number of paper copies specified by the Conservation Administrator of any written information or documents intended for discussion at a meeting/hearing, or fail to provide to the Commission office or Administrator envelopes with sufficient first-class postage, prepaid, for mailing of such copies to Commission members.
- (b) Without the consent of the applicant to a certain date announced at the hearing either for receipt of additional information offered by the applicant or others or for information required of the applicant deemed necessary by the Conservation Commission at its discretion; or
- (c) With the consent of the applicant, to an agreed-upon date, which shall be announced at the hearing.
- (d) Without the consent of the applicant, for lack of receipt of the DEP file number, to certain date announced at the hearing; or
- (e) Without the consent of the applicant, for failure to pay the Consultant Fee pursuant to Section 11 of the Bylaw, to a date certain announced at the hearing.
- (f) Without the consent of the applicant, for failure to pay the filing fee pursuant to Section 11 of the Bylaw, to a date certain announced at the hearing.

- (2) The date, time and place of any such continued hearing shall be publicized in accordance with the Open Meeting Law, and notice shall be sent by the applicant to any person at the hearing who so requests.

Section 15 - Issuance of Permit

A. Within 21 days of the close of the public hearing or any continuance thereof on an application/Notice of Intent for a permit, the Conservation Commission shall:

- (1) Make a determination that the area on which the work is proposed to be done, or on which the proposed work will remove, fill, dredge, discharge into, build upon, degrade or otherwise alter, is not significant to any of the interests identified in the Bylaw, and shall so notify the applicant;
- (2) Make a determination that the area on which the work is proposed to be done, or on which the proposed work will remove, fill, dredge or alter, is significant to one or more of the interests identified in the Bylaw and issue a permit for the protection of said interests;
- (3) Make a determination that the proposed work fails to meet the design specifications, performance standards, or other requirements of the Bylaw, its regulations, or policies of the Commission, or that the project fails to avoid or prevent unacceptable significant or cumulative effects upon the resource area values of the Bylaw, or that there are no conditions adequate to protect said values; or
- (4) If the Conservation Commission finds that the information submitted by the applicant is not sufficient to describe the site, the work, or the effect of the work on the interests identified in the Bylaw, it may issue a permit denial. The permit shall specify the information which is lacking and why such information is necessary. If the Commission issues a permit denial, no work may occur until an applicant reapplies and the Commission grants a permit allowing work.

B. A permit allowing the proposed work shall impose such conditions, in the judgment of the Conservation Commission, that are necessary for the protection of those areas found to be significant to one or more of the interests identified in the Bylaw. Such a condition may include, but are not limited to the placement of permanent bounds (granite or metal) to demarcate all or part of a resource area or mitigation area. Said permit shall prohibit any work or any portion thereof that cannot be conditioned to meet said standards. The permit shall impose conditions setting limits on the quantity and quality of discharge from a point source (both open and closed channel) when said limits are necessary to protect the interests identified in the Bylaw.

C. The permit shall be valid for three years from the date of its issuance.

D. The permit shall be signed and issued by the Conservation Commission and shall be mailed or hand-delivered to the applicant, his or her agent or attorney.

E. A copy of the plans describing the work and the permit shall be kept on file by the Conservation Commission and shall be available to the public at reasonable hours.

F. Prior to the commencement of any work permitted or required by the permit, the permit shall be recorded in the Registry of Deeds or the Land Court. In the case of recorded land, the permit shall also be noted in the Registry's Grantor Index under the name of the owner of land upon

which the proposed work is to be done. In the case of registered land, the permit shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is to be done. Certification of recording shall be sent to the Conservation Commission within two weeks of recording. If work is undertaken without the applicant first recording the permit, the Conservation Commission may issue an enforcement order.

Section 16 - Extension of Permit

A. The Conservation Commission may extend a permit for a period of up to an additional three-year period from date of issuance. No permit may be extended for more than six years after date first issued. The request for an extension shall be made to the Conservation Commission at least 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 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.

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

- (1) Where no work has begun on the project, except where such failure is due to an unavoidable delay, such as appeals and in the obtaining of other necessary permits;
- (2) Where new information, not available at the time the permit was issued, has become available and indicates that the permit is not adequate to protect the resource area values identified in the Bylaw;
- (3) Where incomplete work is causing damage to the resource area values identified in the Bylaw;
- (4) Where work has been done in violation of the permit or the Bylaw or these regulations; or
- (5) Where resource areas have changed.

C. If issued by the Conservation Commission, the extension permit shall be signed by a majority of the quorum of the members of the Conservation Commission present.

D. The extension permit shall be recorded in the Land Court or the Registry of Deeds, whichever is appropriate. If work is undertaken without the applicant recording the extension permit, the Conservation Commission may issue an enforcement order or may itself record the extension permit.

Section 17 – Minor Amendment of Permit

A. In the event a permittee seeks to make a minor modification to an existing permit or other Commission determination, any such requested modification shall have the same or less impact on the resource area values protected by the Bylaw as the approved work. Requests for minor amendment shall follow the procedure described below. No amended permit shall be issued for a permit that has expired.

B. Procedure:

- (1) An applicant shall make a request for an amendment to the Conservation Commission. The request shall be either orally at a regularly scheduled meeting of the Commission or by submitting the request to the Commission in writing, which such request shall be discussed at a regularly scheduled meeting. The request shall describe what changes have been proposed and present any pertinent plans showing such changes.
- (2) The Conservation Commission first shall determine whether the requested change warrants the filing of a new Notice of Intent or whether it is of a sufficiently minor nature and can be considered as an amendment to the original Final Order of Conditions. The Conservation Commission may in its sole and unreviewable discretion determine the project change is relatively minor only if:
 - (a) the purpose of the project has not changed,
 - (b) the scope of the project has not increased,
 - (c) the project still meets relevant standards in these regulations,
 - (d) resource areas are still protected, and
 - (e) the potential for adverse impacts to resource area values will not be increased.

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

Ministerial correction of obvious mistakes, such as citing a wrong file number or typographical errors, may be accomplished by correction of the permit by the Commission or the Conservation Administrator.

- (3) If the Conservation Commission determines that a new Notice of Intent is not necessary, the applicant shall at its expense publish newspaper notice of the proposed amendment in accordance with the Bylaw (Section 5). A butter notification of the proposed amendment shall also be done by and at the expense of the applicant at the time. 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 Conservation Commission shall provide notice of the public hearing in accordance with the requirements of the Open Meeting Law, M.G.L. c. 30A, Sections 18 – 25.
- (4) Under no circumstances will the issuance of an Amended Order of Conditions extend the effective date of the original Final Order of Conditions. The Amended Order shall run with the term of the original Order of Conditions or the effective date of an extended Order of Conditions.
- (5) The Amended Order should be issued on the form provided for an Order of Conditions/Permit, with the insertion of the word "Amended" and the amendment date. Amended Orders/Permit must be recorded with the registry of Deeds in the same manner as Orders.

Section 18 - Certificate of Compliance

A. Upon written request by the applicant, a certificate of compliance shall be issued by the Conservation Commission within 21 days of receipt thereof, and shall certify if it so determines, that the activity or portions thereof described in the application for permit and plans has been completed in compliance with the permit and any amendment(s) thereto. If approved by the Conservation Commission, the certificate of compliance shall be signed and issued by the Commission.

B. Prior to the issuance of a certificate of compliance, a site inspection shall be made by the Conservation Commission or its agent, in the presence of the applicant or the applicant's agent if applicant so desires.

C. If the Conservation Commission determines, after review and inspection, that the work has not been done in compliance with the permit, it shall refuse to issue a certificate of compliance. Such refusal shall be issued within 21 days of receipt of a request for a certificate of compliance, shall be in writing, and shall specify the reasons for denial.

D. If a project has been completed in accordance with plans stamped by a registered professional engineer or a land surveyor or a registered landscape architect for landscaping projects, 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 permit shall accompany the request for a certificate of compliance. The Commission reserves the right to administer the requirements of this paragraph in its sole discretion commensurate with the nature, scope, type, and cost of the proposed project or activity.

E. If the permit contains conditions which continue past the completion of the work, such as maintenance or monitoring, the certificate of compliance shall specify which, if any, of such conditions shall continue. The certificate shall also specify to what portion of the work it applies, if it does not apply to all the work regulated by the permit.

F. The certificate of compliance shall be recorded in the Land Court or Registry of Deeds, whichever is appropriate. Certification of recording shall be sent to the Conservation Commission on the form specified by the Commission.

Section 19 – Prohibited Materials

The Commission has determined that the following materials are harmful to the resource area values of the Bylaw and therefore are prohibited in resource areas:

- A. Copper pipes on the exterior of any structure.
- B. Coal-tar based sealant (asphalt-emulsion based sealant is allowed).

Section 20 - Banks**A. Findings.**

- (1) Banks are likely to be significant to wildlife, to plant or wildlife habitat, to public or private water supply, to groundwater supply, to flood control, to storm damage prevention, to the prevention of pollution, to erosion control and sedimentation control, and to the protection of fisheries. 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.
- (2) Banks are areas where groundwater discharges to the surface and where, under some circumstances, surface water recharges the groundwater.
- (3) Where banks are partially or totally vegetated, the vegetation serves to maintain their stability, which in turn protects water quality by reducing erosion and siltation. Partially or totally vegetated banks provide habitat for wildlife.
- (4) Banks may also provide shade that moderates water temperatures, as well as providing breeding habitat and escape cover and food, all of which are significant to the protection of fisheries. Banks which drop off quickly or overhang the water's edge often contain numerous undercuts which are favorite hiding spots for important species.
- (5) Banks act to confine floodwater during the most frequent storms, preventing the spread of water to adjacent land. Because banks confine water during such storms to an established channel, they maintain water temperatures and depths necessary for the protection of fisheries. The maintenance of cool water temperatures during warm weather is critical to the survival of many species. An alteration of a bank that permits water to frequently and consistently spread over a larger and more shallow area increases the amount of property which is routinely flooded, as well as elevating water temperatures and reducing fish habitat within the main channel, particularly during warm weather.
- (6) Land bordering or within 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 interests which these resources serve to protect.

B. Definition, critical characteristics and boundary.

- (1) A bank is the portion of the land surface which normally abuts and confines a water body. It occurs between a water body and a vegetated bordering wetland and adjacent floodplain, or, in the absence of these, it occurs between a water body and an upland. A bank may be partially or totally vegetated, or it may be comprised of exposed soil, gravel or stone.
- (2) The physical characteristics of a bank, as well as its location, as described in the foregoing Subsection B(1), are critical to the protection of the interests specified in Subsection A.
- (3) The upper boundary of a bank is the first observable break in the slope or the mean annual flood level, whichever is higher in elevation. The lower boundary of a bank is the mean annual low flow level or mean low water level.

C. No activity, other than the maintenance of an already existing structure or Resource Area Enhancement, shall be allowed which will result in the building within or upon, removing, filling, or altering of a bank.

D. Any activity which is allowed under this section on a bank or on land bordering or within 100 feet of a bank shall comply with the following regulations. Any proposed work on a bank or bordering or within 100 feet of a bank shall not impair the following:

- (1) The physical stability of the bank.
- (2) The water-carrying capacity of the existing channel within the bank.
- (3) Groundwater and surface water quality.
- (4) The capacity of the bank to provide breeding habitat, escape cover and food for fisheries.

E. No work shall be performed within 50 feet of an inland bank that abuts an estimated habitat area as designated on the most current map prepared by the Massachusetts Natural Heritage and Endangered Species Program.

Section 21 - Vegetated Wetlands (Wet Meadows, Marshes, Swamps, and Bogs)

A. Findings.

- (1) Vegetated wetlands are likely to be significant to wildlife, to plant or wildlife habitat, to public or private water supply, to groundwater supply, to flood control, to storm damage prevention, to prevention of pollution, and to the protection of fisheries. In these ways, vegetated wetlands are important in mitigating the negative impacts of climate change.
- (2) The plant communities, soils and associated low, often flat topography of vegetated wetlands remove or detain sediments, nutrients (such as nitrogen and phosphorous) and toxic substances (such as heavy metal compounds) that occur in runoff and floodwaters.
- (3) Some nutrients and toxic substances are detained for years in plant root systems or in the 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 impacts of nutrients and toxins until the cold weather period, when such impacts are less likely to reduce water quality.
- (4) Vegetated wetlands are areas where groundwater discharges to the surface and where, under some circumstances, surface water discharges to the groundwater.
- (5) The profusion of vegetation and the low, flat topography of vegetated wetlands slow down and reduce the passage of floodwaters during periods of peak flow by providing temporary floodwater storage, and by facilitating water removal through evaporation and transpiration. This reduces downstream flood crests and resulting damage to private and public property. During dry periods the water retained in vegetated wetlands is essential to the maintenance of base flow levels in rivers and streams, which in turn is important to the protection of water quality and water supplies.
- (6) Wetland vegetation provided 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. Fish populations in the larval stage are particularly dependent upon food provided by overbank flooding which occurs during peak flow periods (extreme storms), because most river and stream channels do not provide quantities of the microscopic plant and animal life required.
- (7) Wetland vegetation supports a wide variety of insects, reptiles, amphibians, mammals and birds which are a source of food for important fish. Bluegills (*Lepomis macrochirus*), pumpkinseeds (*Lepomis gibbosus*), yellow perch (*Perca flavescens*), rock bass

(*Ambloplites rupestris*) and all trout species feed upon nonaquatic insects, Largemouth bass (*Micropterus salmoides*), chain pickerel (*Esox niger*) and northern pike (*Esox lucius*) that feed upon small mammals, snakes, nonaquatic insects, birds and amphibians. These wetlands are also important to the protection of rare and endangered wildlife species.

- (8) Vegetated wetlands, together with land bordering or within 100 feet of a vegetated wetland, serve to moderate and alleviate thermal shock and pollution resulting from runoff from impervious surfaces which may be detrimental to wildlife, and fisheries downstream of the vegetated wetlands.
- (9) Land bordering or within 100 feet of a vegetated wetland is likely to be significant to the protection and maintenance of vegetated wetlands, and therefore to the protection of the interests which these resource areas serve to protect.

B. Definition, critical characteristics and boundary.

- (1) Vegetated Wetlands are freshwater wetlands, including both bordering vegetated wetlands (i.e., bordering on freshwater bodies such as on creeks, rivers, streams, ponds and lakes), and isolated vegetated wetlands which do not border on any permanent water body. The types of freshwater wetlands are wet meadows, marshes, swamps, bogs and vernal pools. Vegetated Wetlands are areas where soils are saturated and/or inundated such that they support a predominance of wetland indicator plants. The ground water 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 the Bylaw based on G.L. c. 131, § 40.
- (2) The boundary of Vegetated Wetland, whether Bordering or Isolated, is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist. Wetland indicator plants shall include but not necessarily be limited to those plant species identified in the Act.
- (3) The boundary shall be defined or delineated by the following:
 - (a) Areas containing a predominance of wetland indicator plants are presumed to indicate the presence of saturated or inundated conditions. Therefore, the boundary as determined by 50% or more wetland indicator plants shall be presumed accurate when:
 1. all dominant species have an indicator status or of obligate, facultative wetland+, facultative wetland, or facultative wetland- and the slope is distinct or abrupt between the upland plant community and the wetland plant community; or
 2. the Conservation Commission determines that sole reliance on wetland indicator plants will yield an accurate delineation.
 - (b) When the boundary is not presumed accurate as described in (3)(a)(1.-2.) or to overcome the presumption, credible evidence shall be submitted by a competent source demonstrating that the boundary of Vegetated Wetlands is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist. The Conservation Commission must evaluate vegetation and indicators of saturated or inundated conditions if submitted by a credible source, or may require credible evidence of saturated or inundated conditions sufficient to support wetland indicator plants, which shall include one or more of the following:

1. groundwater, including the capillary fringe, within a major portion of the root zone;
 2. observation of prolonged or frequent flowing or standing surface water;
 3. characteristics of hydric soils.
- (c) Where an area has been disturbed (e.g., by cutting, filling, or cultivation), the boundary is the line within which there are indicators of saturated or inundated conditions sufficient to support a predominance of wetland indicator plants, a predominance of wetland indicator plants, or credible evidence from a competent source that the area supported, or would support under undisturbed conditions, a predominance of wetland indicator plants prior to the disturbance or characteristic of hydric soils.

C. No activity, other than the maintenance of an already existing structure or Resource Area Enhancement, which will result in the building within or upon, removing, filling or altering of a vegetated wetland shall be permitted by the Conservation Commission.

D. No work shall be performed within 50 feet of a vegetated wetland that abuts on an estimated habitat area as designated on the most current map prepared by the Massachusetts Natural Heritage and Endangered Species.

E. Wetland Replication

(1) Introduction

Notwithstanding the foregoing subsections C. and D., the Commission in its sole discretion may allow work in Vegetated Wetland which results in the loss of up to 5,000 square feet of Vegetated Wetland when such area is replaced 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 Massachusetts Inland Wetland Replication Guidelines (DEP, 2002). Restoration of a degraded wetland may be accepted by the Commission as satisfying the foregoing replication requirement.

(2) Required design criteria

Projects involving Wetlands Filling and/or permanent Alterations shall meet the requirements of 310 C.M.R. 10.60(3) and 310 C.M.R. 10.55(4) and the following requirements of the Commission:

- (a) The proposed replication area design must be submitted to the Commission for approval as part of the submittal of the project Notice of Intent.
- (b) The replication area must be shown to sufficiently duplicate the functions and values of the wetland proposed to be altered.
- (c) The area of the wetland replication shall be at a 2:1 ratio to that area of wetland loss.

- (d) 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. The applicant will take into consideration the impacts of climate change on the replication of the wetland, especially in terms of mitigation of extreme heat, resilience to increased/extreme storm events vents, and changes in precipitation.
- (e) The replication area must have similar groundwater and surface elevation as the lost area.
- (f) The replication area must have a similar location relative to the bank as the lost area when replicating bordering vegetated wetland.
- (g) The replication area must have an unrestricted surface hydraulic connection to the same waterbody or waterway as the lost area when replicating bordering vegetated wetland.
- (h) The location of the replication areas must be in the same general area as the lost wetland. The location of replacement wetland areas shall be in the following order of preference: 1. on site, 2. within the same watershed as the lost area, or 3. within the Town of Arlington.
- (i) The replication area shall be constructed prior to alteration of the existing wetland and during the same growing season. When replication involves transplanting plants and materials from existing wetland to the replicated wetland, the replication area shall be constructed, to the extent possible, immediately after alteration of the existing wetland. When transporting, all care shall be taken to prevent the transporting of invasive plants and invasive materials in soils.
- (j) The proposed replication area must be clearly flagged for Commission site inspection before the Notice of Intent filing.
- (k) The proposal for a replication area (submitted with the Notice of Intent) shall include a detailed plan of the wetland replication showing:
 - (i) cross-section with indication of groundwater level, soil profile and thickness of organic soil in the existing and proposed wetlands;
 - (ii) plant species detail, including number, type and location of species found in the replication area to be altered, and number, types and locations of species to be introduced into the replacement area;
 - (iii) detail of stabilization plans for replication area of Banks;
 - (iv) Wildlife Habitat diversity plan; and
 - (v) any trees over 2” dbh shall be replaced in accordance with Section 24 of these Regulations, “Vegetation Removal and Replacement”.
- (l) If, after three growing seasons, the Commission determines that the replication area has not satisfactorily developed into a wetland replacing the wetland area lost, the applicant or owner may be required to submit new plans to successfully replicate said

lost wetland. No Certificate of Compliance shall be issued until the Commission has determined that a satisfactory replication area has been completed at the end of three growing seasons.

Section 22 - Land Under Water Bodies (Under Any Stream, Pond or Lake)

A. Findings.

- (1) Land under water bodies and waterways is likely to be significant to wildlife, to public and private water supply, to groundwater supply, to flood control, to storm damage prevention, to prevention of pollution and to the protection of fisheries.
- (2) Where land under water bodies and waterways is composed of pervious material, such land represents a point of exchange between surface water and groundwater.
- (3) The physical nature of land under water bodies and waterways 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 phosphorous) from the surface water above. They also serve as traps for toxic substances (such as heavy metal compounds).
- (4) Land under water bodies and waterways, 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 land under water bodies and waterways 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.
- (5) Land under rivers, streams and creeks that is composed of 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.
- (6) Land under ponds and lakes is vital to a large assortment of warm-water fish during spawning periods. Species such as largemouth bass (*Micropterus salmoides*), smallmouth bass (*Micropterus dolomieu*), blue gills (*Lepomis macrochirus*) pumpkinseeds (*Lepomis gibbosus*), black crappie (*Promoxis nigromaculatus*) and rock bass (*Ambloplites rupestris*) build nests on the lake and bottom substrates within which they shed and fertilize their eggs.
- (7) Land within 100 feet of any bank abutting land under a water body is likely to be significant to the protection and maintenance of land under a water body, and therefore to the protection of the interests which these water bodies serve to protect.

B. Definition, critical characteristics and boundaries.

- (1) Land under water bodies is the land beneath any creek, river, stream, pond or lake. Said land may be composed of organic muck or peat, fine sediments, rocks or bedrock.

- (2) The physical characteristics and location of land under water bodies and waterways specified in the foregoing Subsection B(1) are critical to the protection of the interests specified in Subsection A above.
- (3) The boundary of land under water bodies is mean low water level.

C. 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 land under a water body or within 25 feet of land under a water body shall be done without written permission of the Commission.

D. The Commission may allow activity on land under a water body or within 100 feet of land under a water body if it complies with the following regulations. Any proposed work upon land under a water body or with 100 feet of land under a water body shall not impair the following:

- (1) The water-carrying capacity within the defined channel, which is provided by said land in conjunction with the banks.
- (2) Ground and surface water quality and quantity.
- (3) The capacity of said land to provide breeding habitat, escape cover or food for fisheries.

E. No work shall be performed within 50 feet of land under water bodies that abuts an estimated habitat area as designated on the most current map prepared by the Massachusetts Natural Heritage and Endangered Species Program.

Section 23 - Land Subject to Flooding (Bordering and Isolated)

A. Findings.

- (1) Bordering land subject to flooding.
 - (a) Bordering land subject to flooding is an area which floods from a rise in a bordering waterway or water body. Such areas are presumed to be significant to flood control and storm damage prevention and protection of surrounding land and other homes or buildings. In these ways, bordering land subject to flooding is important in mitigating the negative impacts of climate change.
 - (b) Bordering land subject to flooding provides a temporary storage area for floodwater which has overtopped the bank of the main channel of a creek, brook, river or stream or the basin of a pond or lake. During periods of peak runoff, floodwaters are both retained (i.e., slowly released through evaporation and percolation) and detained (slowly released through surface discharge) by bordering land subject to flooding. Over time, incremental filling of these areas causes increases in the extent and level of flooding by eliminating flood storage volume or by restricting flows, thereby causing increases in damage to public and private properties and downstream resource areas.
 - (c) The hydrologic regime, plant community and structure, topography, soil, and proximity to water bodies or vegetated wetlands provide important food, shelter, migratory, and overwintering areas, and breeding for wildlife.
 - (d) The hydrologic regime, surrounding plant community, topography, soil, and proximity to water bodies or vegetated wetlands make bordering land subject to flooding allow vegetation to successfully grow in these areas.

(2) Isolated land subject to flooding.

- (a) Isolated land subject to flooding 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. Such areas are likely to be locally significant to flood control and storm damage prevention. In this way, isolated land subject to flooding is important in mitigating the impacts of climate change. In addition, where such areas are underlain by pervious material they are likely to be significant to public or private water supply and to groundwater supply. Where such areas are underlain by pervious material covered by a mat or organic peat and muck, they are also likely to be significant to the prevention of pollution. Isolated land subject to flooding provides important breeding habitat for amphibians and some rare plants. Isolated land subject to flooding provides a temporary storage area where runoff and high groundwater pond and slowly evaporate or percolate into the substrate. Filling causes lateral displacement of the ponded water onto contiguous properties, which may result in damage to said properties.
- (b) Isolated land subject to flooding, where it is underlain by pervious material, provides a point of exchange between groundwater and surface waters. Contaminants introduced into said area, such as road salts, find easy access into the groundwater. 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 the groundwater.

B. Definitions, critical characteristics and boundaries.

(1) Bordering land subject to flooding.

- (a) Bordering land subject to flooding is an area with low, flat topography adjacent to and inundated by floodwaters rising from brooks, creeks, rivers, streams, pond or lakes. It extends from the banks of these waterways and water bodies; where a bordering vegetated wetland occurs, it extends from said wetland.
- (b) The topography and location of bordering land subject to flooding specified in the foregoing Subsection B(1)(a) are critical to the protection of the interests specified in subsection A(1) above.
- (c) The boundary of bordering land subject to flooding is the estimated or observed maximum lateral extent of floodwater which will theoretically result or has resulted from the statistical 1%-annual-chance flood (also known as the one-hundred-year-frequency storm).
 - 1. Said boundary shall be that determined by reference to the most recently available flood profile data prepared for the Town of Arlington within which the work is proposed under the National Flood Insurance Program (NFIP, currently administered by the Federal Emergency Management agency, successor to the U.S. Department of Housing and Urban Development). 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.
 - 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 bordering land subject to flooding shall be the

maximum lateral extent of floodwater which has been observed or recorded or the Commission may require the applicant to determine the boundary of Bordering Land Subject to Flooding by engineering calculations which shall be:

- i. based upon a design storm of 8.48 inches of precipitation in 24 hours (from “Cornell” atlas);
- ii. based upon the standard methodologies set forth in U.S. Soil Conservation Service Technical Release No. 55, Urban Hydrology for Small Watersheds and Section 4 of the U.S. Soil Conservation Service, National Engineering Hydrology Handbook; and
- iii. prepared by a registered professional engineer or other professional competent in such matters.

(2) Isolated land subject to flooding.

- (a) Isolated land subject to flooding 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. Isolated land subject to flooding may be underlain by pervious material, which in turn may be covered by a mat of peat or muck.
- (b) The characteristics specified in the foregoing Subsection B(2)(a) are critical to the protection of the interests specified in Subsection A(2) above.
- (c) The boundary of isolated land subject to flooding is the perimeter of the largest observed or recorded volume of water confined in said area.

C. 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, land subject to flooding shall be conducted without written permission of the Conservation Commission.

D. The Commission may permit activity on land subject to flooding provided it shall not result in the following:

- (1) Flood damage due to filling which causes lateral displacement of water that would otherwise be confined within said area;
- (2) Adverse effect on public and private water supply or groundwater supply, where said area is underlain by pervious material;
- (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.

The applicant shall take into consideration the impacts of climate change on the activities proposed on land subject to flooding, especially in terms of the compensatory flood storage as a climate change resilience strategy. 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 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. No new parking areas or garages shall be used as compensatory flood storage. The Commission has found that use of such areas or garages results in a significant or cumulative effect upon the resource area values protected by the Bylaw, and has found that these facilities can result in the

uncontrolled acute or chronic release of these harmful materials into the resource areas protected by the Bylaw. The Commission has also found that using these structures for flood storage can result in the damage of vehicles and property under flooding conditions.

E. No work shall be performed within 50 feet of land subject to flooding that abuts an estimated habitat area as designated on the most current map prepared by the Massachusetts Natural Heritage and Endangered Species Program 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.

Section 24 - Vegetation Removal and Replacement

A. Findings: Vegetation in a resource area protected by the Bylaw 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, water detention, sediment control, bank stabilization, biodiversity, pollutant uptake, evapotranspiration of water, aesthetics, and atmospheric purification. In addition, plant size ordinarily is proportional to habitat value; i.e., large wooded 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 protected by the Bylaw can provide the resource area values protected by the Bylaw, including, but not limited to: flood control, storm damage prevention, pollution abatement, wildlife protection, aesthetic value, and recreation.

B. No vegetation in a resource area protected by the Bylaw shall be damaged, extensively pruned, or removed without written approval by the Commission and in-kind replacement. Extensive pruning is defined as removal of 20% or more of limbs or growth. For extensive pruning or removal of vegetation because of an Imminent Risk to Public Health and Safety, in-kind replacement shall be to the extent practicable as determined by the Commission (See Section 9 of these Regulations for Emergency Certification).

C. "In-kind replacement" shall refer to a combination of species type and surface area as defined by the area delineated by the drip line of the affected plant(s). "In-kind" means the same type and quantity of plant species that was removed, extensively pruned, or damaged, unless compelling evidence is presented in writing that explains why the resource area values under the Bylaw are promoted through an alternative proposal, and planted within the same resource area or another resource area located in close proximity on the project site. Notwithstanding the foregoing, only non-invasive plant species shall be planted as replacements.

D. The criteria for removal of vegetation follow. In all instances, the reasons for removal must be expressed in writing before the removal. In administering this standard, the Commission shall consider species selection, location, and timing of the plantings.

(1) Health of Vegetation

Vegetation in a state of irreversible decay, or undesirable vegetation present as a result of unintentional lack of maintenance may be offered as a reason(s) for removal.

(2) Bank or Slope Stabilization

A bank or slope stabilization plan requires the restructuring of soils occupied by vegetation.

(3) Invasive Species

The vegetation being removed is an aggressive, invasive, or non-native species as confirmed by wetlands scientist or as listed on a wetlands plant list acceptable to the Commission, such as, but not limited to that published by the United States Fish and Wildlife Service.

(4) Ecological Restoration

The vegetation is being removed as part of a project whose primary purpose is to restore or otherwise improve the natural capacity of a resource area to protect and sustain the interests of the Bylaw; also called Resource Area Enhancement.

(5) Vegetation Replacement

The vegetation is being removed and replaced elsewhere on the project site or within the same resource area, only if the Commission determines that such removal and replacement does not decrease the resource area's contribution to the resource area values protected by the Bylaw.

(6) Imminent Risk to Public Health and Safety

The vegetation is an imminent risk to public health or safety or property as confirmed in writing and submitted to the Commission by the Arlington Tree Warden, Fire Department Representative, Public Safety Officer, or a certified arborist.

E. Application for Removal. For all projects, the application for vegetation removal shall be submitted as part of the application for permit or Notice of Intent as described by the Bylaw and these regulations. At a minimum, the application will include:

(1) Narrative

The narrative shall describe the existing conditions, the proposed planting plan, the list of existing and proposed species, the size of existing and proposed species, and number of plants before and after the revegetation event. The narrative shall also provide the rationale for the removal, by addressing the criteria D1 through D6 above, and discuss the proposed maintenance plan (see (7) below).

(2) Affirmation of the Revegetation Activities

All plans for revegetation must be accompanied by written testimony and scaled diagram from a certified arborist or wetland scientist or landscape architect. At a minimum, this document must include the following information:

- (a) Is the vegetation removal necessary? (See D. above)
- (b) How much surface area of the vegetation will be removed (ft²-based on drip line)?
- (c) How many individual plants will be removed by species; *i.e.*, is the species list submitted with the NOI correct?

(3) Planting Plan

The proposed planting plan must be drawn to scale and identify properly the resource area and buffer zone and the project site. It must include the locations of each replacement species and the number of each species proposed for planting (in table form).

The planting plan and procedures shall comply with the American Standards for Nurserymen, Inc. or equivalent. It must also include the location of the erosion control

devices used during the restoration event. A brief narrative must accompany this planting plan describing the storage location of all motorized equipment.

The planting plan shall show the estimated tree canopies after 15 years of growth, the specific names, sizes and locations of trees to be planted, and the total area of square feet of the area shaded by tree canopies. In determining the shaded area, measure the shaded area assuming that the shaded area is only that area directly under the drip line.

(4) Existing Species List

Each species existing before the restoration shall be listed in terms of area of coverage (ft²) and number of individual plants and either height or dbh as specified in the tables below.

(5) Replacement Species List

The replacement of vegetation shall be according to the following table (derived from the American Standards for Nurserymen, Inc.), unless the Applicant proves that the amount of replacement vegetation will not survive or contribute in the long-term to resource area values. A rationale for the species and size choice must be provided if the replacement is not "in-kind".

Native species are the preferred; invasive species are not allowed.

Replacement plant materials shall conform to the requirements described in the latest edition of American Standard for Nursery Stock, which is published by the American Association of Nurseryman ("AAN").

Replacement size shall be most common available substantial size, as approved by the Commission.

Vegetation replacement is not considered successful until the replacement plants have survived three full growing seasons.

For extensive pruning or removal of vegetation because of an Imminent Risk to Public Health and Safety, in-kind replacement shall be to the extent practicable as determined by the Commission (See Section 9 of these Regulations for Emergency Certification).

(a) Tree:

Existing	Replacement
Trunk (dbh)	Quantity
3 to 8 inches	1
8 to 20 inches	2
> 20 inches	3

(b) For all trees:

1. If a plant is well grown with a single stem, well-shaped and bushy, and has sufficient well-spaced side branches to give it weight and good bud qualities, it is an acceptable plant.
2. On multi-stem trees, height shall be defined as the measurement taken from the ground level to the average uppermost point of growth of the plant.
3. All replacement plants 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 fully recovery of the plant once planted.
4. Sapling trees shall include deciduous trees with a dbh of 1 inch and less; evergreens of 2 feet or less and shall be replaced at the discretion of the Commission so as to reach an equivalent area of coverage and soil retention.

(c) For Shrubs:

The replacement of shrubs (bushes) shall be with bushes and shrubs of equivalent size. For bushes, the replacement must be well grown with a single stem, well-shaped and bushy, and have sufficient well-spaced side branches to give it weight and good bud quality as per the American Association of Nurserymen standards.

(6) Rationale for Removal - Describe why the interests of wetlands protection are advanced by the revegetation plan.

(7) Maintenance Plan - Vegetation replacement is not considered successful until the replacement plants have survived three full growing seasons. The maintenance plan shall describe how the restoration will be evaluated annually for three years and reported to the Commission. The Commission reserves the right to require a revised replanting plan, or additional plantings on an annual basis in the event that the revegetation plants decay or die.

F. The Commission may require one or more of the following measures to protect vegetation during work:

- (1) Tree protection fencing – Prior to commencing work, four (4) foot-high snow fencing shall be installed and secured with wooden stakes (2" x 4" or 2" x 3") or 6-foot steel channel posts so as to create an enclosure at the dripline of tree(s) or other distance as the site conditions allow to be protected. Such fencing shall be securely erected, be vertically plumb and be maintained for the duration of the project and shall protect individual trees or groups of trees.
- (2) Tree protection blanket – "BarkSavers" or similar armored blankets shall be installed and maintained according to product specifications.
- (3) No existing trees shall be used for crane stay, guys or other fastening.
- (4) Vehicles shall not be parked below the canopy of any existing tree or where damage may result to existing trees or tree roots.
- (5) Construction materials shall not be stored beneath existing trees.
- (6) Following completion of work, have a certified arborist monitor the health of trees on site for possible damage and take measures to repair damage.

- (7) Prior to work, preparation of a tree protection plan showing summary of all trees on site (including dbh, species, extent of canopy, roots and health) and specifying whether each tree shall be saved or lost.

G. The Commission may require the placement of permanent bounds (e.g., granite or metal) to demarcate all or part of a resource area or vegetation mitigation area.

H. The requirements of this section shall be met commensurate with the nature, scope, type, and cost of the proposed project or activity.

Section 25 – Adjacent Upland Resource Area

A. Findings.

- (1) The Adjacent Upland Resource Area usually is significant to wildlife, plant or wildlife habitat, to public and private water supply, to groundwater supply, to flood control, to storm damage prevention, to prevention of pollution, to erosion control and sedimentation control, to natural character and recreation, and to mitigation of potential climate change impacts.
- (2) Trees in the Adjacent Upland Resource Area provide important functions not provided by any other plant type. Trees provide shade to moderate water temperatures, levels of dissolved oxygen and water flow. They serve as windbreaks to moderate wind stress and shear during storms, and provide nesting, roosting and perching areas for birds, and other wildlife. The transitional assemblage of trees, shrubs and groundcover (containing both wetland and upland elements) frequently found in Adjacent Upland Resource Areas has been found significant to the support of a greater number of native and specialist wildlife species in the interior of resource areas, which they border. Trees and other vegetation, if undisturbed or minimally disturbed, slow the rate of surface runoff providing flood control and reducing down-gradient storm damage. In these ways, trees also mitigate potential climate change impacts due to extreme heat and heavy storm and rain events.
- (3) Lands within the Adjacent Upland Resource Area are best left in an undisturbed and natural state.
- (4) There is overwhelming scientific consensus that significant physical, chemical, or biological alterations to Adjacent Upland Resource Areas will have significant physical, chemical, or biological impacts on associated or adjacent wetland resource areas such as banks, creeks, streams, rivers, ponds, lakes, and wetlands. Adjacent Upland Resource Areas are presumed important to the protection of these resources because activities undertaken in close proximity to 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 Adjacent Upland Resource Area to protect a wetland resource, and to provide habitat, increases with buffer width and continuity.

- (5) Generally, vegetated buffers within the Adjacent Associated Upland Resource Area and next to the adjacent resource area of less than 25 feet wide are ineffective in protecting adjacent wetlands or providing wildlife habitat functions. Vegetated buffers often larger than 25 feet are necessary to provide wildlife habitat and to protect adjacent resource areas from continuing activities such as inputs of sediments and nutrients, to protect from direct human disturbance, to protect sensitive species from adverse impacts, and to protect adjacent resource areas from the adverse effects of climate change and changing water quality, including but not limited to nutrient concentrations, temperature, salinity, and dissolved oxygen concentrations.

B. Definition and Boundary. The Adjacent Upland Resource Area is the area adjacent to a resource area specified in Section 2, A(1) through (4) and is the land within 100 feet (measured horizontally) of any of the aforesaid resource areas.

C. Alternatives to Work in Adjacent Upland Resource Area. A growing body of research evidence suggests that even "no disturbance" areas reaching beyond 25 feet from wetlands, streams, rivers, and other water bodies may be insufficient to protect many important characteristics and values. Problems of nutrient runoff, water pollution, siltation, erosion, vegetation change, and habitat destruction are greatly exacerbated by activities within 100 feet of wetlands. Thus, work and activity in the Adjacent Upland Resource Area shall be avoided and discouraged and reasonable alternatives pursued.

Only when the Applicant proves through a written alternative analysis that reasonable alternatives are not available or practicable, the Commission may, in its discretion, allow temporary, limited, or permanent disturbance as appropriate and consistent with this Section depending on the characteristics of the Adjacent Upland Resource Area, including but not limited to the following:

- (1) slope
- (2) soil characteristics
- (3) drainage patterns
- (4) extent and type of existing native vegetation
- (5) extent and type of invasive vegetation
- (6) amount of impervious surface
- (7) wildlife and wildlife habitat
- (8) intensity and extent of use
- (9) intensity and extent of adjacent and nearby uses
- (10) capacity to provide resiliency to climate change

This approach is intended to allow flexibility for use of property while maintaining necessary levels of protection of the resource values protected by the Bylaw.

D. No activities or work, other than passive passage and resource area enhancement, are permitted within the first 25 feet of the Adjacent Upland Resource Area (measured horizontally from a resource area specified in Section 2, A(1) through (4)). Except as part of Resource Area Enhancement or an Ecological Restoration Project, no vegetation may be disturbed, and leaf litter and natural debris shall remain in place. This No-Disturbance area shall at a minimum

contain the same amount of area of undisturbed and natural vegetation from its pre-project state. A previously disturbed or previously developed 25-foot area shall be restored to a naturally vegetated state to the greatest extent practicable.

E. No new structure(s) shall be placed in the first 50 feet of the Adjacent Upland Resource Area (measured horizontally from a resource area specified in Section 2, A(1) through (4)), unless approved by the Commission in evaluation of existing total impervious surface (see Section F. below) within the 50-foot area compared to the proposed impervious surface, and other considerations for the improvement of the resource area and climate change resiliency.

F. Impervious surface.

- (1) The total area of impervious surface within the Adjacent Upland Resource Area shall not increase over existing total area unless mitigation is provided and there is no impact on Resource Area values.
- (2) Impervious surfaces shall not intrude farther into the Adjacent Upland Resource Area than pre-project conditions unless the Commission in its sole discretion determines that the total area of impervious surface is significantly decreased or other 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 Adjacent Upland Resource Area.

G. The following activities may not be conducted in any portion of the Adjacent Upland Resource Area: changing of oil, refueling, or damage to other vegetation not scheduled for removal.

H. Certain Proposed Activities in Adjacent Upland Resource Area.

The Adjacent Upland Resource Area should be left intact in a naturally vegetated state to the maximum extent practicable and as provided in these regulations. However there are some activities that may be permitted by the Commission that are not likely to have a significant or cumulative effect on the resource area values of the Bylaw, nor are they expected to have a significant effect on the ability of the resource area resilience to climate change, provided the other provisions of these Regulations are met. These proposed activities must be reviewed by the Conservation Commission Administrator to determine the appropriate permitting procedures, and to determine what, if any, mitigation is required. These activities are:

- (1) Fencing, provided it will not constitute a barrier to wildlife movement;
- (2) Plantings of native species of trees, shrubs, or groundcover, but excluding lawns that would require mowing, regardless of species composition;
- (3) The conversion of impervious surfaces to vegetated surfaces, provided erosion and sedimentation controls are implemented during construction;
- (4) Activities that are temporary in nature, have negligible impacts, and are necessary for planning and design purposes (e.g., installation of monitoring wells, exploratory borings, sediment sampling and surveying);
- (5) Nonpermanent wildlife watching blinds; or
- (6) Short-term scientific or educational activities.

Section 26 – Vernal Pool and Its Associated 100-Foot Adjacent Upland Resource Area**A. Findings**

- (1) Vernal Pools and their associated 100-foot No-Disturbance Zones are likely to be significant to the protection of wildlife habitat and rare plant and animal habitat. Vernal Pools constitute a unique and increasingly rare type of wetland that is inhabited by many species of wildlife, some of which are completely dependent on Vernal Pools and their associated habitat for their survival. Areas in the immediate vicinity of the Vernal Pool (i.e., 100-foot Adjacent Upland Resource Area) provide these species with important non-breeding habitat functions, such as migratory pathways, feeding, shelter, and overwintering sites. Many other species utilize Vernal Pools and their associated Adjacent Upland Resource Area for breeding and non-breeding functions, although such species are not limited to this type of wetland. The protection of Vernal Pools and their associated Adjacent Upland Resource Area are essential for the survival of wildlife species that depend on these unique and threatened resource areas. Vernal Pools need not be state-certified in order to be protected under the Bylaw or these Regulations.
- (2) 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 are 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.

B. Definition, Critical Characteristics and Boundary:

- (1) Vernal Pools exhibit a tremendous variation in physical, geographic, hydrologic and vegetative conditions, and therefore, for the purposes of these Regulations, these conditions are not considered reliable criteria for their identification. A Vernal Pool is a temporary freshwater body, which, in most years holds water for a minimum of two (2) months and is free of established, reproducing fish populations, and is protected by these Regulations if it meets any of the following criteria:
 - (a) The Vernal Pool contains evidence of the presence of any one (1) of the following obligate indicator species: Spotted Salamander, Blue-Spotted Salamander, Jefferson Salamander, Marbled Salamander, Wood Frog or Fairy Shrimp, or;
 - (b) In the absence of any obligate indicator species, the Vernal Pool contains evidence of two (2) of any of the following facultative indicator species: Spring Peeper, American Toad, Green Frog, Pickerel Frog, Gray Tree Frog, Four-Toed Salamander, Spotted Turtle, Caddisfly larvae or cases of Caddisfly larvae, Dragonfly or Damselfly larvae or shed skins (exuvia) of Dragonfly or Damselfly larvae, adults, juveniles or shells of either Fingernail Clams or Amphibious, air-breathing Snails.
- (2) The boundary of vernal pool is the lower of:
 - (a) the maximum elevation of a topographic depression that holds water for a minimum of two (2) continuous months each year; or
 - (b) the maximum observed or recorded water level in a topographic depression.

The boundary of vernal pool may be defined differently for the purpose of state or federal protection. The boundary of vernal pool is not established when a vernal pool certification number is issued by the Commonwealth.

C. Timing of Evidence Collection: Many of the indicators of Vernal Pool habitat are seasonal. For example, certain salamander egg clusters are found only between late March and late May; Wood Frog chorusing occurs only between late March and late May, and then only at night. Consequently, failure to find evidence of breeding must be tied explicitly to those periods during which the evidence is most likely to be available.

Accordingly, in the case of challenges to the presumption of Vernal Pool habitat, the Commission may require that the determination be postponed until the appropriate time period consistent with the evidence being presented. The Commission may also require its own site visit(s) as necessary to confirm the evidence.

D. Presumptions of Significance for Adjacent Upland Resource Area to a Vernal Pool: Where a proposed activity involves the removing, filling, dredging, or altering of a Vernal Pool or its 100-foot Adjacent Upland Resource Area, the Commission shall presume that the Vernal Pool and its 100-foot Adjacent Upland Resource Area is significant to the protection of wildlife habitat and rare plant and animal habitat.

E. Performance Standards for 100-foot Adjacent Upland Resource Area: Unless the presumption set forth in Section 21.D of these Regulations is overcome, the following standards shall apply to Vernal Pools and their 100-foot Adjacent Upland Resource Area:

- (1) 100-foot Adjacent Upland Resource Area: No activity shall be permitted within 100 feet of the delineated edge of a Vernal Pool, or in the case of a wetland resource area that encompasses the pool, within 100 feet of the delineated edge of said wetland resource area. Prohibited activities include, but are not limited to, grading, landscaping, vegetation control, pruning, cutting, filling, excavation, roadway construction and/or driveway construction.
- (2) Adjacent Upland Resource Area to Vernal Pool Demarcation: To maintain the perpetual integrity of the 100-foot Adjacent Upland Resource Area and to ensure that there will be no encroachments into this Area by the applicant or future owners of the subject property, the Commission may require the Adjacent Upland Resource Area to be marked on the ground, at the applicant's expense, with permanent markers. These markers shall be made of weather resistant material (e.g. granite, concrete, other), and the Commission shall determine their number, location and size. The Commission may require the maintenance of such markers in any certificate of compliance issued for the project.

Section 27 – Riverfront Area

The Commission accepts and adopts the definitions, requirements, and performance standards for Riverfront Area as specified in the Massachusetts Department of Environmental Protection's Wetlands Regulations in 310 C.M.R. 10.58.

Section 28 - Variances

A. The Conservation Commission may, in its discretion, grant variances from the operation of one or more of the provisions of the Bylaw, or the rules and regulations promulgated thereunder. Such variances are intended to be granted only in rare and unusual cases and upon a showing of clear hardship relating to the subject premises if the requested relief is not granted.

B. The standards as set forth herein shall be the sole basis upon which a variance shall be granted.

C. Applicants shall file a written request for variance at the same time as or as soon as possible an application (Notice of Intent) for a permit is filed with the Commission and, in any event, prior to the close of the hearing on said application. Such variance request shall be made in writing and shall be a separate writing from the application or request forms.

D. At any time subsequent to filing of the variance request, but in no event less than ten calendar days prior to the date of commencement of the public hearing at which the variance request is to be considered, the applicant or his or her or its representative shall submit to the Commission and copies to each Commission member (including associate member) a written statement in support of the variance request. Such written statement shall include but not be limited to the following items:

- (1) A brief statement of the relief sought;
- (2) A description of all reasonably identifiable alternatives to the applicant's proposal that were considered by the applicant and that would avoid or minimize the necessity of the requested relief, along with the reasons why such alternatives were deemed to be inadequate, unworkable or inadvisable;
- (3) A statement of all efforts that will be undertaken to minimize impact upon resource areas and buffer zones arising out of the work proposed;
- (4) Detailed plans for any mitigation measures proposed;
- (5) Adequate engineering and expert evidence to permit the Commission to evaluate the basis for the applicant's contentions in support of the variance requested; and
- (6) Any and all relevant information which the applicant wishes the Commission to consider in deliberating the variance request.

E. A variance may be granted only for the following reasons and upon the following conditions:

- (1) The Conservation Commission may grant a variance upon a clear and convincing showing by the applicant that any proposed work, or its natural and consequential impacts and effects, will not have any adverse effect upon any of the interests protected in the Bylaw, and that there are no reasonable conditions or alternatives that would allow the work to proceed in compliance with these regulations and the Bylaw. It shall be the responsibility of the applicant to provide the Conservation Commission with any and all information that the Commission may request orally or in writing, in order to enable the Commission to ascertain such adverse effects, and the failure of the applicant to furnish any information that has been so requested shall result in the denial of a request for variance.

(2) The Conservation Commission may grant a variance from these rules and regulations when necessary to avoid so restricting the use of the property as to constitute a taking of private property without compensation. The Commission may request an opinion from Town Counsel or other legal consultant at the expense of the applicant as to whether the application of the Bylaw to a particular case will result in a taking of property without compensation.

Section 29 - Areas of Critical Environmental Concern

A. Any areas within the Town of Arlington which have been designated as Areas of Critical Environmental Concern by the Secretary of Energy and Environmental Affairs, Commonwealth of Massachusetts, are so designated due to the particularly unique environmental factors that affect such areas and that highlight the unique importance of each area so designated.

B. As a result of such designation, it is incumbent upon the Commission to be even more diligent in its review of projects proposed within such areas. The highest standards of scrutiny as to the impact of any proposal are required shall be exercised by the Commission.

C. Further, close scrutiny shall be given by the Commission to any proposals involving an application of new pavement or newly installed other impervious materials within any area less than 100 feet from bordering vegetated wetland, bank, beach, and meadow.

Section 30 – Wildlife Habitat

The Town of Arlington accepts and adopts the definitions, requirements, and performance standards for wildlife habitat as specified in the Massachusetts Department of Environmental Protection’s Wetlands Regulations in 310 CMR 10.00.

Section 31 – Climate Change Resilience

A. The impacts of climate change can adversely affect each Resource Area’s ability to provide and promote the resource area values protected by the Bylaw. (See definitions of “adaptation” and “alter” and “impacts of climate change” in Section 4 above). Resource Areas are critical to building a community’s resilience/adaptation to the impacts of climate change due to their ability to provide for flood control, storm damage prevention, and other Resource Area Values.

B. The Applicant shall, to the extent practicable and applicable as determined solely by the Commission, integrate considerations of adaptation planning into their project to promote climate change resilience so as to protect and promote resource area values into the future. These considerations are especially important in Land Subject to Flooding (floodplain) and Riverfront Area and other Resource Areas which protect the interest of Flood Control and Storm Damage Prevention, including Adjacent Upland Resource Areas. These Resource Areas may be directly impacted by extreme weather events expected to be more prevalent or more intense due to climate change, in surface runoff of pollutants, and in wildlife habitat due to changes in temperature.

The Applicant shall consider the project's adaptation to potential climate change impacts by addressing the following:

- (1) Describe project design considerations to limit storm and flood damage during extended periods of disruption and flooding as might be expected in extreme weather events. See Vegetative Wetlands Section 21, Land Subject to Flooding Section 23, and Adjacent Upland Resource Area Section 25, of these Regulations.
- (2) Describe project stormwater surface runoff, which may increase due to storm surges and extreme weather events, and how this will be managed / mitigated to prevent pollution (including nutrients from fertilizers, roadway runoff, etc.) from entering the resource area with consideration of eliminating impervious surfaces as feasible. See Stormwater Management Section 33 of these Regulations.
- (3) Describe project vegetation / planting plans and other measures to improve the resiliency of the wildlife habitat of the resource area to withstand potential temperature and rainfall changes (drought and excess) due to climate change. See Vegetation Removal and Replacement Section 24 of these Regulations.
- (4) Describe measures to protect proposed structures and minimize damage to structures due to the impacts of climate change.

Section 32 - Ecological Restoration Projects

The Commission may allow ecological restoration projects as defined and provided in 310 CMR 10.00.

Section 33 - Stormwater Management

A. Work or activity specified in a request for determination of applicability or an application for a permit and subject to the Bylaw shall meet, at a minimum and to the extent practicable, the best management practices for stormwater management as set forth in the Stormwater Standards of the Massachusetts Department of Environmental Protection. The Commission may in its sole discretion require the applicant to provide a runoff plan and calculations using the "Cornell" method, and based on the ten-year, fifty-year and one-hundred-year-flood frequency event period. Calculations shall show existing and proposed runoff conditions for comparative purposes and include a narrative on the proposed project's impact on climate change resilience of the resource area (see Section 31).

B. The requirements of this section shall be met commensurate with the nature, scope, type, and cost of the proposed project or activity

Section 34 - Severability; Compliance With Court Decisions

A. The invalidity of any section or provision of the Bylaw or of these regulations shall not invalidate any other section or provisions thereof, nor shall it invalidate any permit which previously has been issued.

B. If any Court of the Commonwealth shall invalidate any provisions of the Bylaw or of these regulations, the Conservation Commission may promulgate additional rules and regulations or present to the next Town Meeting after such invalidations, amendments to the Bylaw or regulations which are designed to comply with any Court decision invalidating such provisions or regulations, as the case may be.

Section 35 - Effective Date

The effective date of these rules and regulations shall be March 1, 2018, and the provisions of these rules and regulations shall apply to all work performed, and all applications or requests for determination of applicability received on or after that date.

[Editor's notes: Regulations first approved January 4, 2001; revised: June 2001, September 20, 2001; February 2005; April 7, 2005; September 16, 2010; January 20, 2011; June 4, 2015; and March 1, 2018.]



TOWN OF ARLINGTON

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ARLINGTON CONSERVATION COMMISSION

List of possible updates to the Arlington Regulations for Wetlands Protection

As discussed during the 11/21/2019 Arlington Conservation Commission meeting

Alternatives analysis [Pam]: buffer zones, AURA

Plan requirements [Nathaniel]: standardize colors for resource areas (e.g. Plympton), detailed topo (BLSF)

Stormwater calculations: consider updating to the NOAA Atlas 14 numbers from 2015 to replace the Cornell Method numbers from 2008

Tree / vegetation replacement: consider 2:1 replacement minimum and require minimum 3" DBH for survival. Current tree replacement table allows for 1:1. However, there are certain situations when there cannot be a 2:1 replacement. Consider alternatives for difficult situations.

General permit [Chuck, Nathaniel]: Reading example, minor projects WPA list, notice sent to commission, right to request attendance at meeting

Administrative Review projects [Chuck, Nathaniel]: consider projects that would not require even a general permit – such as projects that will improve the resource area (e.g., remove impervious surface or reduce flood storage encroachments) or have no impact (e.g., replace roof on an existing structure within the resource area / buffer) – have them reviewed by Conservation Administrator only to ensure they have documentation of the project and any required calculations (flood storage / stormwater, as applicable) and to allow the Administrator to give guidance on erosion control. Vegetation removal. Falmouth list.

Cooling off period: [bylaw change] can't resubmit for application if denied for certain period of time

Climate change adaptation section: MACC buffer zone guidance

Section 2.B.1&2 [Chuck]: clarify jurisdiction

Floodplain [Nathaniel, Chuck]: clarify compensatory flood storage



Town of Arlington, Massachusetts

Annual Reports to Town Meeting

Summary:

Discuss revisions to 2019 Annual Report to Town Meeting

ATTACHMENTS:

	Type	File Name	Description
▢	Reference Material	ACC_2019.pdf	Draft 2019 Annual Report

Conservation Commission

The Arlington Conservation Commission ("ACC") is required by state and ~~local town~~ laws to protect and preserve wetlands, waterways, and their surrounding areas. The ACC is comprised of seven volunteer Commissioners and two volunteer Associate Commissioners, who are appointed by the Town Manager with the approval of the Select Board, and supported by the full-time professional Environmental Planner & Conservation Agent at bimonthly meetings and onsite visits. The ACC works to ensure that all construction and development projects that may alter any wetlands, floodplains, rivers, streams, ponds, and/or lakes are in compliance with state and ~~local town~~ regulations. The ACC is mandated to protect wetlands, waterways, water supplies, fisheries, wildlife, and wildlife habitat as well as regulate activities in a floodplain through its administration of the Massachusetts Wetlands Protection Act and the Arlington Bylaw for Wetlands Protection.

In 2019, the ACC held 24 public meetings, and provided coordination, monitoring, permit review, and consultation on numerous residential, commercial, and municipal projects around Town. The ACC reviewed 32 applications. Of the 32 applications, the Commission issued 14 Permits/Orders of Conditions, 10 Determinations of Applicability, and eight Certificates of Compliance. The ACC and its Agent also conducted over ~~forty-five (45)~~ site visits/inspections.

The ACC also protects and manages the Town's Conservation Lands and natural resources and does so through collaboration with other entities and grants from various sources, as described below.

Mystic Riverfront Restoration Project

Completed in 2019, this project created a native riverbank (riparian) habitat and improved stormwater infrastructure, ultimately improving stormwater quality that enters the Mystic River. In the fall of 2016, the Massachusetts Department of Environmental Protection (DEP) awarded the Town \$47,325 through the Natural Resource Damages Assessment and Restoration Program. The grant funded the creation of a native riverbank (riparian) habitat and improved stormwater infrastructure, ultimately improving stormwater quality. The project is located along the Mystic River at the end of Park Street in the area that was directly impacted by oil released from a tanker truck that overturned nearby on Route 60 in May 2013. This project was completed in 2019. The project was funded in the fall of 2016, the by the Massachusetts Department of Environmental Protection (DEP) awarded the Town \$47,325 through a \$47,325 grant under the Natural Resource Damages Assessment and Restoration Program.



The restored outfall improves the quality of stormwater running directly into Mystic River.

Spy Pond Shoreline Protection Project

A Community Preservation Act grant of \$552,900 was awarded for FY2018 for shoreline stabilization on Town land along Spy Pond. The Land and Water Conservation program of the Massachusetts Executive Office of Energy and Environmental Affairs awarded the Town \$40,040 for trail work in Spy Pond Park. The project also received CDBG-granted \$94,000 in Community Development Block Grants to the project for trail work and ADA compliance. The Friends of Spy Pond Park donated \$5,000 to project work. The Mass Audubon's Judy Record ~~f~~Eund awarded \$10,000 to the project. The goals of this project include preserve, stabilize, and strengthen the pond's banks to control erosion; protect and enhance wildlife habitat; prevent unauthorized paths; broaden and strengthen constituency groups; increase water quality and recreational opportunities; and improve stormwater infiltration. The project will be completed in early 2020.



The Spy Pond Project included resurfacing the pathway with an ADA accessible porous pavement.

Wellington Park & Mill Brook

In 2018, Arlington received a one of the first State Executive Office of Energy and Environmental Affairs' Municipal Vulnerability Preparedness MVP action grants, ofin the amount of almost \$400,000 to increase flood storage capacity in Wellington Park, along Mill Brook. This increased flood storage capacity is approximately 70 cubic yards and is to decrease flooding downstream. Project construction included building the flood storage channel, removing invasive plant species, building a boardwalk, installing a porous asphalt pathway, and installing educational signage. This construction project directly aligns with the priorities identified in the MVP planning process and dove-tails with the CPA project in this same area (lead by MyRWA) to improve public access and recreational opportunities in the Mill Brook Corridor. In 2020, Arlington and MyRWA will lead a design effort for the last phase of this project, to improve the recreational amenities of the park.



The flood storage area slows floodwaters downstream of Wellington Park.

Conservation Land Stewards

The ACC's citizen-volunteer organization, Arlington Land Stewards (ALS), has assisted in managing 28 Town-owned conservation lands comprising approximately 53 acres. Land Stewards monitor, coordinate, and maintain conservation land of their choice, with guidance from the ACC. Additional outreach was conducted this year to increase stewardship and identify opportunities for clean-up events, including the Earth Day Clean-Up at Hills Hill, with 35 local volunteers. The Land Stewards also hosted an invasive plant species management training for residents interested in learning more about invasive species.

Water Bodies Oversight

The ACC, through its Water Bodies Working Group, continued investigation of the iron flocculation at the McClellan Park Detention Ponds to improve the site's aesthetic, recreational, and wildlife values and functions. Technical contractor Woods Hole Group submitted a final report about the analysis to the ~~Arlington Conservation Commission~~ ACC and it is available ?????.



Sampling at Reeds Brook in McClennen Park.

In addition to its Spy Pond Shoreline Protection Project, the ACC has also worked closely with the Spy Pond Committee to ensure the health and well-being of Spy Pond and with the MassDOT to permit dredging the Spy Pond sand bar. ACC is generally working towards reducing chemical usage to control invasive plants in these prized environmental resource and recreational areas.

Arlington Reservoir Master Plan

The Reservoir Master Plan was completed in 2018 and the capital improvement projects identified therein were initiated in 2018. The goal of the Master Plan was to assess all aspects of the Reservoir, considering terrestrial and aquatic issues from both environmental and recreational perspectives. Led by the Park and Recreation Commission, the ACC and the Vision 2020 Reservoir Committee have provided input. Phase 1 construction of this master plan began in Fall 2019, and includes a new water treatment and pump system for the bathing beach. Future phases will address some of the broader environmental issues as well as trail system work.

Arlington Great Meadows

Arlington's Great Meadows (AGM) are comprised of 193 acres, making it Arlington's largest open space parcel, although located in East Lexington. AGM is mostly wetlands, but contain many upland trails that through the ACROSS Trail System make connections to the Arlington Reservoir and the Whipple Hill conservation area. The Friends of Arlington's Great Meadows (FoAGM) are active in increasing Arlington's awareness of this wonderful area. In 2019, FoAGM organized multiple walks at AGM and distributed information at Town Day.

FoAGM volunteers maintain the trails and boardwalks at the Meadows. This includes removing invasive plants, consisting primarily of Japanese Knotweed, along the Minuteman Bikeway. More information on FoAGM can be found at: www.FoAGM.org.

Goals and Beyond

The ACC will continue to encourage, support, and assist the various volunteer and environmental advocacy groups that are dedicated to preserving the Town's valued conservation lands and other open spaces. These groups include, among others: Arlington Land Stewards, Arlington Land Trust, Open Space Committee, Friends of Arlington's Great Meadows, Friends of Spy Pond Park, Friends of Menotomy Rock Park, and the Mystic River Watershed Association. Additional specific goals include the following:

- Revision of Conservation Land Stewards program materials and incorporation of educational trainings.
- Updating the Arlington Regulations for Wetlands Protection.
- Outreach on Climate Change Resilience guidance in local wetland bylaws and regulations.
- Additional collaborative Community Clean-Up events.

Acknowledgments

ACC sincerely thanks all individuals and organizations that contributed directly or indirectly to the activities of its 54th year. Many special thanks go to the active citizenry that attended hearings and informed the Commission's discussions and the scores of volunteers who came out for cleanup projects, assisted as land stewards, or participated in the many Friends groups that work to preserve the Town's natural resources and conservation lands. The ACC would like to thank Nathaniel Stevens, who served as the Conservation Commission Chair from 2001-2019, for his superb leadership and tremendous commitment to Arlington's conservation efforts. ACC would like to welcome Susan Chapnick as the new Commission Chair and Chuck Tirone as the new Commission Vice Chair.



Town of Arlington, Massachusetts

Goal Setting for 2020

Summary:

Discuss 2020 goals for the Commission