CHAPTER R:10

REGULATIONS FOR TOPSFIELD WETLANDS GENERAL BYLAW

R:10-1. AUTHORITY OF TOPSFIELD CONSERVATION COMMISSION; ADOPTION OF REGULATIONS.

a. Under the Conservation Commission Act (GLc.40 §8C, 1957) the Topsfield Conservation Commission is the official agency specifically charged with the protection of Topsfield's natural resources. It is empowered by the State of Massachusetts under the Wetlands Protection Act (GLc.131 §40,1972) and the Rivers Protection Act (Acts of 1996, Ch.258); and directed by the Town of Topsfield under the Topsfield Wetlands General Bylaw (1983) to regulate and enforce wetlands and riverfront ("Resource Areas") protection within the boundaries of Topsfield.

b. The Commission decides whether a proposed activity will affect a protected Resource Area ("Presumption of Significance"). If the Commission allows a project, it decides which specific conditions it shall impose in order to fulfill its statutory obligations ("Performance Standards"). The Wetlands Bylaw is not superseded by zoning bylaws. Accordingly, the issuance of a building permit does not preclude the necessity of approval by the Commission. Additionally, the Commission defines the boundaries of wetlands for the Board of Health and regulates the siting of septic systems to conform to the values of the Bylaw.

c. The Commission adopted these regulations on October 14, 1992, by authority granted under the Topsfield Wetlands General Bylaw. The adoption dates of amendments to Topsfield Regulations are noted below the pertinent section of the text. Except as otherwise stated in the Bylaw or these Regulations, the definitions and other provisions of GLc.131 §40 ("the State Law") and 310CMR 10.00 ("the State Regulations"), as amended, shall apply.

1. Persons using these Regulations are advised to note carefully distinctions between Topsfield Regulations and those found in 310CMR 10.00. Items in these Regulations marked by bracketed asterisks [*] are worthy of particular attention; however, important distinctions may occur in other provisions.

R:10-2. DEFINITIONS.

As used in this chapter:

Anaerobic shall mean deficient in molecular oxygen.

Buffer Zone [*] shall mean the Resource Area that extends one hundred (100) feet horizontally outward (upland) from the boundary of freshwater wetlands, bodies of water including vernal pools, land under water and banks.

Developed Area [*] shall mean any area of land that has been altered as defined in the Wetlands General Bylaw, e.g., with structure(s), driveway(s), impervious areas, and any other alterations.

Erosion Control shall mean the prevention or reduction of the detachment or movement of soil or rock fragments by water, wind, ice and/or gravity.

Growing Season shall mean the portion of the year when soil temperatures are above 41°F, generally April to October in Topsfield.

Hydric Soil shall mean soil that is saturated, flooded or ponded long enough during the year to develop anaerobic conditions in the upper [*] eighteen (18) inches.

Hydrophytic Vegetation shall mean plants that are growing in water or in soil or other substrate that is at least periodically deficient in oxygen as a result of excessive water content.

Notice of Intent (NOI) shall mean the Application for a permit under the Bylaw.

Order of Conditions shall mean the Permit issued under the Bylaw.

Pesticide shall mean a substance or mixture of substances intended to prevent, destroy, repel, regulate or mitigate the impact of any pest, including undesirable plants, animals or micro-organisms. Pesticides do not include drugs used to treat animals or humans for infections caused by bacteria or viruses.

Pollutant shall mean a substance, the introduction of which into a resource area may degrade the suitability of the resource area for water supply, wildlife habitat, fisheries, recreation, or other protected interests. Pollutants include, but are not limited to, algaecides, herbicides, pesticides, fertilizers, fuels, solvents, lubricants, cleaners, wastewater, de-icing compounds and hazardous materials.

Rare Species shall mean any species listed by the Massachusetts Division of Fisheries and Wildlife Natural Heritage and Endangered Species Program as rare, endangered, or of special concern.

Recreation shall mean activities including, but not limited to, hiking, walking, fishing, canoeing, swimming, horseback riding, skiing, and nature study.

Sedimentation Control shall mean the prevention or reduction of the collection or concentration of sand, soil or rock fragments by the action of water, wind, ice or gravity.

Stream [*] shall mean a body of running water, including rivers, brooks, creeks and seasonal watercourses, that moves in a channel or swale, with or without banks, over the ground due to a hydraulic gradient. A portion of a stream may flow through a culvert or subsurface drain or under a bridge. A stream may be natural or man-made, continuous or intermittent.

Vernal Pool [*] shall mean an intermittent pond that meets the criteria set forth in "Guidelines for Certification of Vernal Pool Habitat" issued by the Massachusetts Division of Fisheries and Wildlife. Prior certification is not required. Vernal pools function as essential breeding habitat for a variety of amphibian species such as wood frog (Rana sylvatica) and mole salamanders, and provide other important wildlife habitat functions for amphibians and other wildlife. Vernal pool habitat includes a 100-foot setback area.

Wetlands Hydrology [*] shall mean permanent or periodic inundation or prolonged soil saturation sufficient to create anaerobic conditions within eighteen (18") inches of the ground surface.

Editor's Note: Section R:10-2 definition of *Developed Area* was added, and definition of *Stream* was amended to be consistent with the Wetlands General Bylaw definition by the Topsfield Conservation Commission at a Public Hearing on March 8, 2006.

R:10-3. IDENTIFICATION OF RESOURCE AREAS PROTECTED UNDER THE BYLAW.

a. [*]*Freshwater Wetlands* are identified by the predominance of hydrophytic vegetation and/or the presence of hydric soils and/or wetlands hydrology. Delineations shall be done *primarily* on the basis of vegetation. Use of soils or hydrological observations shall be done when there is an indication that the wetland boundary may be more extensive than that indicated by vegetation. *Isolated wetlands* greater than five thousand (5000) sq. ft. are subject to protection. Delineation methodology is set forth in Appendix 2.

1. Wetland boundary delineations shall be reviewed only between April 15 and October 1 of each year, unless the Commission grants a waiver due to low probability of error on a particular site, or reserves the right to adjust the boundary during the growing season.

2. Where the Commission finds that the plant community cannot be accurately evaluated because of recent or ongoing disturbance, the Commission may require that site soils and hydrology be examined, *and/or* the Commission may require that the delineation be postponed until such time that the natural plant community has regenerated and grown.

3. The Commission may retain the services of a professional botanist, soil scientist, wetland scientist or hydrologist, <u>at the applicant's expense</u>, to evaluate vegetation, soils and or hydrology.

4. Where the applicant contends that a wetland is not subject to regulation, said wetland shall be flagged and shown on the site plan and the reason(s) for its exclusion as a protected area shall be given.

5. Resource Area delineations for new house construction or exceeding 100 feet in length shall be reviewed under the ANRAD (Abbreviate Notice of Resource Area Delineation) process only.

b. [*]*Bodies of Water* include any lake, pond, river or stream, whether intermittent or permanent, man-made or natural. The Bylaw protects certain bodies of water that may not be protected under the State Law, including:

Permanent ponds, even if less than ten thousand (10,000) square feet;
All intermittent streams; and
All vernal pools.

Manmade ponds created by damming a river shall have 200-foot Riverfront Area jurisdiction.

Manmade drainage ditches or structures are considered in accordance with the provisions of Sections R:10-4g and R:10-24.

c. [*]*Land Under Water* shall be identified in the manner specified in 310 CMR 10.56, which shall also apply to those bodies of water that are protected under the Bylaw but not under the State Law.

d. [*]*Banks* shall be identified in the manner specified in 310 CMR 10.54, which shall also apply to those bodies of water that are protected under the Bylaw but not the State Law.

e. [*]The *Buffer Zone* extends one hundred (100) feet horizontally outward (upland) from the boundary of freshwater wetlands, bodies of water, land under water, banks, or vernal pools, as identified under this Bylaw.

f. *Land Subject to Flooding* includes those lands identified in the manner specified in 310 CMR 10.57.

g. [*] *Annual High Water* in association with Riverfront Area shall be the furthest horizontal extent of flooding averaged over at least ten years.

Editor's Note: Section R:10-3.a.5. was added and Section R:10-3.e. was amended to include *vernal pools* by the Topsfield Conservation Commission at a Public Hearing on December 14, 2005. Section R:10-3.g. *Annual High Water* was added by the Topsfield Conservation Commission at a Public Hearing on March 8, 2006.

R:10-4. PRESUMPTIONS OF SIGNIFICANCE AND PERFORMANCE STANDARDS.

a. [*]*Freshwater Wetlands* are presumed significant to protection of public and private water supply; protection of groundwater; flood control; erosion and sedimentation control; storm damage prevention; protection of water quality; water pollution prevention; and protection of wildlife habitat. In addition, those freshwater wetlands that border on bodies of water are also presumed significant to protection of surface water and fisheries. Those freshwater wetlands which border on the Ipswich River on Hood Pond, or which occur within Bradley Palmer State Park, the Ipswich River Wildlife Sanctuary or Willowdale State Forest are also presumed significant to recreation.

Where the presumptions of significance for freshwater wetlands are not overcome, any proposed work within a freshwater wetland shall not destroy or otherwise alter any portion of said area, except as provided in paragraphs *g.* and *i.* of this section.

b. [*]*Bodies of Water* are presumed significant to public and private water supply; groundwater and surface water; flood control; erosion and sedimentation control; storm damage prevention; water quality; water pollution prevention; fisheries and wildlife habitat. Hood Pond, the Ipswich River and those bodies of water within Bradley Palmer State Forest, the Ipswich River Wildlife Sanctuary of Willowdale State Forest are presumed significant to recreation. Vernal Pools are significant to wildlife habitat.

Where the presumptions of significance for bodies of water are not overcome, any proposed work within a body of water shall conform to the performance standards of paragraph *c*. below regarding protection of Land Under Water and Banks. No project may be permitted which will have an adverse effect on Vernal Pool habitat, except as provided in paragraph *i*. of this section.

No pollutants may be discharged into any body of water without an Order of Conditions authorizing such discharges, unless such discharge is exempt from local permitting requirements. If such exemption is claimed, documentation of the exemption and verification that the discharge conforms to all applicable laws, regulations and permits shall be submitted to the Commission at least fourteen (14) days prior to the discharge of pollutants.

No pesticides shall be applied to any body of water without an Order of Conditions authorizing such application. The sole purpose of the hearing under this provision is to determine whether the applicant is proposing to use particular pesticides only as permitted by law. The application for the Order shall include a full copy of the product's label, the date(s), method(s) and locations of application, and any other pertinent data.

c. *Banks* and *Land Under Water* are presumed significant as delineated in 310 CMR 10.54 and 10.56, respectively. Where the presumptions of significance for banks and/or land under water are not overcome, any proposed work in these areas shall not impair:

1. The physical stability of the bank(s);
2. The water carrying capacity provided by the land under water in conjunction with the banks;
3. Groundwater and surface water quality;
4. The capacity of said land under water and/or bank(s) to provide important habitat functions for fisheries and/or wildlife.

Wildlife habitat evaluations may be required for proposed alterations less than the thresholds adopted under the State Regulations.

d. *Land Subject to Flooding* is presumed significant as delineated in 310 CMR 10.57, except as otherwise specified in paragraph *b*. of this section referring to Vernal Pools.

Where the presumptions of significance for Land Subject to Flooding are not overcome, any proposed work in these areas shall meet the performance standards of 310 CMR 10.57. Notwithstanding, no project may be permitted which will have an adverse effect on Vernal Pool habitat, except as provided pursuant to paragraph *i*. of this section.

e. [*]*Buffer Zones* are presumed significant to the protection of groundwater and surface water; flood control; erosion/sedimentation control; water qualify; water pollution prevention; wildlife habitat and fisheries.

1. Setback Areas: The Commission presumes that work within the following Setback Areas will adversely affect the buffer zone's capacity to contribute to the interests of the Bylaw:

(a) Within one hundred (100) feet of the boundary of Vernal Pools or habitat of rare or endangered species or species of special concern;

(b) Within 100 feet of the boundary of a Freshwater Wetland, Bank, or Body of Water;

(c) Within 100 feet of the downhill boundary of any wetland or land subject to flooding which is situated on or at the top of a slope of a hill **unless** it can be **proved** that all runoff from the wetland on the occurrence of a 100-year storm can be contained within the property and in the upland until it can percolate into the ground.

2. No work shall occur in the Setback Areas, except as provided pursuant to paragraph *g.* (maintenance) or *i.* (Waiver Provision) of this section. Considerations in association with the granting of a waiver shall include but not be limited to (a.) through (c.) as follows:

(a.) For lots already developed with an existing house, commercial building, or other permanent structure as of May 2, 2000, proposed activities in the Buffer Zone not exceeding a total of an additional 5% or 400 square feet, whichever is less, of the Buffer Zone may be considered only if the proposed activities are located outside the Buffer Zone as much as possible, activities are limited to already disturbed areas (e.g. existing lawn), and mitigation is offered to compensate for any impacts to Buffer Zone functions and values.

(b.) For lots in existence but not developed as of May 2, 2000, and for projects proposing substantial removal of the primary structure, activities shall be allowed only as necessary to develop the lot with a house, septic system, and driveway, and activities shall be outside of Buffer Zone as much as possible (e.g. allowing a driveway, only, in Buffer Zone to allow access to an area outside Buffer Zone).

(c.) For newly formed lots (after May 2, 2000), there shall be no activities in Buffer Zone Setback Areas.

3. The Commission presumes that application or discharge of pollutants within the Buffer Zone will adversely affect the Buffer Zone's capacity to contribute to the interests of the Bylaw. No pesticides shall be applied to the Buffer Zone without an Order of Conditions authorizing such application. The sole purpose of the hearing under this provision is to determine whether the applicant proposes to use particular pesticides only as permitted by law. The application for the Order shall include a full copy of the product's label, date(s), method(s) and location(s) of application, and other pertinent data.

4. Manure shall not be stored uncovered within 100 feet of any Wetland Resource Area or within 200 feet of a perennial stream. An impervious cover shall be maintained and secured in place at all times except for maintenance and/or removal. All manure and agricultural waste products, including building debris, wasted feeds, fencing materials, and broken and obsolete farm equipment shall be removed at a minimum frequency of twice annually. No paddocks shall be constructed within 100 feet of a Wetland Resource Area.

5. If a parcel has access to Town water, no well shall be constructed within the 100-foot Buffer Zone to any Wetland Resource Area or within the 200-foot Riverfront Area of any perennial stream. When no other potable water source is available a new Deep Drilled well may be considered within the 100-foot Buffer Zone to a Wetland Resource Area and/or within the outer 100 feet of 200-foot Riverfront Area solely for the purpose of non-irrigation single-family potable water source.

6. These presumptions are rebuttable and may be overcome by a clear showing that the nature of the proposed work, special design measures, construction controls or site conditions will not reduce the ability of the Buffer Zone to contribute to protected interests.

7. Where the presumptions of significance for the Buffer Zone are not overcome, proposed work shall be undertaken in such a manner as to prevent erosion and siltation into adjacent water bodies and wetlands as specified under the current guidelines of the USDA Soil Conservation Service, or other guidelines approved by the Commission. The Commission shall impose conditions it finds necessary to protect wildlife habitat or other interests.

f. The presumptions of paragraphs *a.* - *c.* of this section are rebuttable and may be overcome by a clear showing that the Resource Area in question does not play a role in the protection of the interests cited.

g. [*] The Commission may allow maintenance of those wetland uses, such as manmade ponds, road drainage structures, drainage easements, agricultural uses, and the like, which already lawfully exist at the time of adoption of these regulations. Such maintenance projects require the filing of a Request for Determination or Notice of Intent, unless exempted in writing by the Commission. All such work must use appropriate measures to protect the interests of the Bylaw.

Any enlargement, modification or substantial improvement of such preexisting uses requires the filing of a Notice of Intent, and is subject to the performance standards and other regulations contained herein.

h. [*] Any work done within any Bylaw Resource Area must, at a minimum, comply with "Best Practical Measures" to mitigate potential adverse impacts.

i. [*] *Waiver Provision*

1. The Commission may, by affirmative vote of at least four (4) of the members present, waive the application of one (1) or more of the regulations contained in paragraph *a.* - *e.* of this section when, upon consideration of the particular case, and when the waiver request has been submitted in writing addressing the four criteria (a) through (d), hereof, and the Commission finds that:

(a) There are no alternatives that would allow a project to proceed in compliance with the regulations; *and*

(b) Mitigating measures are proposed that will allow the project to be conditioned so as to contribute to the interests identified in the Bylaw; *and*

(c) Where alteration of a Wetland, Bank, Land Under Water or Body of Water is proposed, replication is proposed in accordance with the State regulations and Section R:10-22 of these regulations; *and*

(d) The waiver is necessary to accommodate an overriding public interest, or that it is necessary to avoid an order that so restricts the use of property as to constitute an unconstitutional taking-without-compensation.

Alternatives include, but are not limited to, redesigning or scaling back the project, relocating roads or structures, using best available technologies, choosing

another project/land use; or (as in the case of a project accommodating an overriding public interest) choosing another project site.

2. Additional reasons for possible denial of waivers include, but are not limited to, the following:

(a) The cumulative alteration of wetlands on the property and contiguous land of the same owner (now or previously) exceeds five thousand (5000) square feet or five (5%) percent (whichever is less); *or*

(b) Subdivision of the land has left the property without upland access, or another prior action of the current or previous owner has created the need for the proposed project; *or*

(c) Filling/alteration of the resource area is proposed to meet septic system setbacks of slope requirements; *or*

(d) The proposal is for direct discharges of stormwater to a wetland or waterbody/way, or stormwater detention/retention in a wetland or waterbody/way; *or*

(e) Alternatives exist which, although more costly to the applicant or resulting in less economic gain, result in less or no alteration to resource areas; *or*

(f) The judgment of the Commission is that the proposal and mitigation proposed is insufficient, or unproven, in protecting the interest of the Bylaw.

j. *Rare Species*. No project may be permitted which will have any short- or long-term adverse effects on the habitat of a local population of a State-listed rare or endangered species or species of special concern.

Editor's Note: Sections R:10-4.e. *Buffer Zones* and R:10-4.i. *Waiver Provision* were amended by the Topsfield Conservation Commission at a Public Hearing on December 14, 2005. Section R:10-4.e.2. *Buffer Zones* was amended by the Topsfield Conservation Commission at a Public Hearing on March 8, 2006.

R:10-5. FILING PROCEDURES AND REQUIREMENTS.

R:10-5.1 Filing Procedure.

a. All materials specified below shall be submitted to the Commission by registered mail or hand delivery. Applications, plans and supporting materials shall be submitted in duplicate. Fees are payable at time of application. The Commission shall hold a public meeting or hearing, as appropriate, within twenty-one (21) days of receipt of a complete application.

b. When applicable, submit application and supporting materials at the same time to:

1. Department of Environmental Protection Northeast Office (fees payable to State are submitted per instructions on State Fee Transmittal Form);

2. Massachusetts Division of Fisheries and Wildlife, Natural Heritage and Endangered Species Program (when project locus is within an area encircled on the current State Estimated Habitat Maps);
3. US Army Corps of Engineers, whenever proposed work requires an Army Corps permit (as indicated under question 11 of the Notice of Intent);
4. Topsfield Planning Board, Board of Health, Town Engineer and Highway Superintendent, for proposed subdivisions, multiple-dwelling structures, commercial, industrial, institutional or public works projects;
5. Topsfield Town Engineer and Board of Health, for septic systems and drainage projects not part of projects described in paragraph b, 4. above.
6. Other agencies, as required for specific projects.

R:10-5.2 Materials Required for All Filings.

a. *Application.* Use the forms provided under the State and Bylaw, or under the Bylaw regulations, which may be obtained from the Conservation Commission.

1. Form 1, *Request for a Determination of Applicability*, may be used by any person who desires a determination as to whether the Bylaw applies to land or proposed work, whether a permit is required, or for review of Wetlands boundary delineations.
2. Form 4, *Abbreviated Notice of Intent*, may be used for any project where alteration does not exceed one thousand (1000) square feet, will not require U.S. Army Corps of Engineers permits or a Division of Waterways (Chapter 91) license, *and* is confined to the Buffer Zone or Land Subject to Flooding.
3. Form 3, *Notice of Intent*, shall be used for all other applications for a permit under this Bylaw.
4. Form for *Request for a Determination of Negligible Impact* (R:10-27 TCC Form 6)) shall be provided by the Commission for proposed projects or activities seeking a determination by the Commission that there would be negligible or no detectible impact on Resource Areas or their values and functions protected under the Wetlands General Bylaw and Regulations.

b. *Site and Project Description*. The project applicant is responsible for providing site plans and other information to accurately describe the site, proposed work, impacts on protected areas and interests, protective measures proposed, and (where a waiver is requested) alternatives.

Detailed requirements are listed in Appendix 1. The Commission may require that plans, reports, calculations, and other supporting materials be prepared, signed and (where appropriate) stamped by qualified professionals.

c. *Site Locus* shall be indicated on the most recent USGS topographic map. For Notice of Intent and Abbreviated Notice of Resource Area Delineation filings, additionally the *site locus* shall be indicated on the current "Estimated Habitat Map of Rare Wetland Wildlife," which is available from the Commission or the Massachusetts Division of Fisheries and Wildlife, Natural Heritage and Endangered Species Program. Where site locus is within an encircled rare species habitat area, submittal of the Notice of Intent to the Natural Heritage and Endangered Species Program is required.

d. *Mailing List of Abutters*, obtained from the current records of the Topsfield Board of Assessors. An abutter is the owner of property within one hundred feet of the boundary of the applicant's/project property, including property located across a street, way, river or stream within the one hundred feet.

e. *Site Visit Authorization* (R:10-19 TCC Form 2) signed by the property owner. This form also is available from the Commission Office.

f. Names and Qualifications of persons preparing reports, plans and other materials submitted. *Disclosure of Personal Interest Certification* (R:10-20 Form 3) for consultants or engineers is required before the first public hearing. This form also is available from the Commission Office.

g. Fees as specified in Section R:10-6. Use R:10-17 (TCC Form 1) to calculate the fees owed. This form also is available from the Commission Office.

h. *Certification* that all other required permits have been obtained and/or applied for; list of permits that must be obtained subsequent to Commission approval.

i. A *Plan*, in recordable form. Two (2) final plans shall be submitted to the file prior to issuance of a permit.

j. The Commission may, by its own cognizance or upon written request, waive any submittal requirements it finds are unnecessary to document the site or proposed work, or to make a decision.

k. *Topsfield Conservation Commission Administrator Permit* (**TCCAP**) for Limited Buffer Zone Activity

Projects and activities in the Buffer Zone associated with the maintenance and improvement of <u>existing residential properties</u>, and that conform to the limitations listed in subsection (c), below, will be deemed to have a negligible impact, or no impact, on the wetland values protected by the Wetlands General Bylaw if conducted under the supervision of the Conservation Administrator through the issuance of an Administrator Permit ("TCCAP") in the manner described in this section. Any project or activity for which a TCCAP is issued shall not require an Order of Conditions under the Town of Topsfield Wetlands General Bylaw.

(a) <u>Submission requirements</u>: Any landowner may seek an Administrator Permit by submitting the following:

(1) A $50 filing fee.

(2) An application, on a form to be provided by the Administrator, containing a brief description of the project. Photographs of the site with discernible stakes in the ground delineating the locus of the proposed

project will expedite the permitting process.

(3) A sketch of the proposed site and the footprint of the proposed work.

(b) Site Inspection: The Administrator shall be permitted to inspect the worksite before issuing the TCCAP and before, during, and after the project or activity is conducted to ensure compliance with the permit, including any conditions attached thereto. If the Administrator is satisfied that the proposed activity will conform to the requirements of subsection (c), the Administrator shall endorse the application, with any additional conditions the Administrator deems appropriate, and provide a copy to the Applicant. If the Administrator concludes that a Request for Determination of Applicability or Notice of Intent is required, the Administrator shall so notify the Applicant. The decision whether to issue a TCCAP is solely within the Administrator' s discretion.

(c) Approval Criteria: A project or activity shall be eligible for a TCCAP if it meets the following limitations and conditions:

1. **Locus.** The locus of permitted work shall be confined to the Buffer Zone, as defined in Section R: 10-2 of these Regulations.
2. **Slope** of worksite. The grade of the worksite shall not exceed 10% unless the slope is in the direction away from any resource area.
3. **Condition of site.** The worksite shall be limited to previously and lawfully altered Buffer Zone areas such as those that have been converted to lawn, cultivated, or cleared of trees and shrubs.
4. **Worksite area.** The total area of proposed worksite shall not exceed 3,000 square feet. The "worksite area" includes all proposed improvements such as driveways, patios, structures, etc. in addition to the area required for access of construction personnel, equipment, material, and siltation fences/other sedimentation controls.
5. **Structures.** Structures that may be erected pursuant to a TCCAP are limited to those that would be constructed either on a concrete slab or semi-pervious material or on concrete piers such as Sonotube piers in general usage, except that pre-existing structures built on a foundation may be repaired or reconstructed provided, however, that the footprint of the structure is not enlarged. All new structures shall be located no closer than 25 feet from the nearest edge of a Wetlands Resource Area.
6. **Trees.** No trees greater than 6 (six) inches in diameter shall be removed in the Buffer Zone unless these are dead, diseased, or pose an imminent threat to persons or property in the judgment of the Administrator. Invasive species may also be removed in accordance with subparagraph (d), below.
7. **Access.** The worksite shall not be accessed over any resource area except that a part of the outer Buffer Zone area contiguous with the worksite may be used for access.
8. **Mechanized equipment.** Mechanized equipment used in the proposed construction/activities shall not be moved over or into any contiguous Wetlands Resource Area.
9. **Excavation.** The extent of the proposed work shall be limited to the placement of no more than eight 8-inch diameter Sonotubes that are hand-dug and no deeper than 4 (four) feet.

10. **Driveways.** The Commission prefers the use of pervious driveways such as gravel or paver brick surfaced ways that can be laid on a course of leveling sand to mitigate frost heaves. In the event, however, that a bituminous surface is proposed, the driveway shall be designed to allow storm-water infiltration into the adjacent ground. No stormwater runoff shall be directed onto a public way.

(d) **Removal of invasive species.** New England is host to a great number of exo-biotic plant species that thrive unchecked and are therefore considered to be "invasive." Removal of invasive species pursuant to the protocols approved by the Commission and in accordance with all relevant Federal, State, and Topsfield laws and regulations may also be approved pursuant to this section.

(e) **Conditions.** The Administrator may add conditions to the issuance of the permit to ensure that contiguous resource areas are properly protected from any adverse effects of the construction activity. In addition, ongoing conditions may be attached that continue to be in effect after the construction is completed where such are deemed to be required by the Administrator.

1. **Tree removal.** Tree stumps shall be left in the ground but may be ground and treated with herbicides, fungicides, and/or insecticides in accordance with all relevant laws and regulations and as necessary to kill any re-growth, fungus, or destructive insects such as pine bark beetles, and borers.

2. **Removal of soil.** Topsoil, loam, or grass turf may be removed only from the area within the footprint of a proposed structure, laid brick patios, walkways, driveways, or similar appurtenances. Soil shall not be stockpiled within the Buffer Zone at any time. Any temporary stockpiling of soil must be on and covered, e.g. with polyethylene sheeting or nylon tarp when not being used. The covering shall be surrounded by hay bales or siltation socks and secured with rocks at night or during inclement weather or if left unattended for longer than 10 hours.

3. **Restoration after Construction.** All areas that have been stripped of vegetation or resulted in soil disturbance during the construction phase and that are not otherwise covered by structures, driveways, or paved surfaces shall be stabilized with grass and/or native plantings, and no siltation fence may be removed until the grass/other vegetation has been well established in the seeded/planted areas.

(f) **Not to supersede State Law.** This authorization is intended to be consistent with, but does not supersede, the requirements of the Wetlands Protection Act and 310 CMR 10.00.

Editor's Notes: Section R: 10-5.2.a. was amended and Section R: 10-5.2.a.4. was added by the Topsfield Conservation Commission at a Public Hearing on April 9, 2008. Section R:10-5.2.k., Topsfield Conservation Commission Administrator Permit (TCCAP) was added by the Topsfield Conservation Commission at Public Hearing on January 27, 2010, to be effective on February 1, 2010.

R:10-5.3 Disclosure of Personal Interest.

In order to rely upon the disinterested objectivity of the professional opinions of consultants or engineers whose work is presented on behalf of a project, the Commission must be assured that these consultants or engineers have no undisclosed personal interest in the applicant or application.

a. Any engineer or consultant who appears, either in person or through its professional affiliates or employees, on behalf of an applicant or representative in a project before the Commission shall file in advance of the first hearing on any application or request relative to a project, *either:*

1. *Certification*, TCC Form 3, Regulations Appendix 2 R:10-20, of no personal interest in the application beyond payment for professional services rendered on the project at standard fee arrangements; *or*
2. *Disclosure*, TCC Form 3, Regulations Appendix 2 R:10-20, of the nature and status of said engineer's or consultant's personal interest whether it be in any form of ownership or incentive compensation in return for services rendered to the project or other interests.

b. If an engineer or consultant has a personal interest in any project, the Commission may, at its option:

1. Require the applicant to pay for the cost of a disinterested engineer or consultant selected by the Commission to review and verify any tests, professional conclusions or calculations of such interested engineer or consultant; *and/or*
2. Reject the professional work or opinions of such interested engineer or consultant.

Editor's Note: Sections R:10-5 and R:10-20 (TCC Form 3, *Certification of Disclosure of Personal Interests of Consultants*) were amended by the Topsfield Conservation Commission at a Public Hearing on December 6, 2000.

R:10-6. FEES.

a. Fees are payable at the time of submitting a Request for Determination of Negligible Impact (RDNI), Request for Determination of Applicability (RDA), Abbreviated Notice of Resource Area Delineation (ANRAD), Notice of Intent (NOI), Abbreviated Notice of Intent, Request for Extension of Permit, Request to Amend Order of Conditions, Request for Certificate of Compliance, etc.

Fees under the Bylaw are in addition to those required under the State regulations. Consultant fees and security bond monies are not included in these fees. The Town of Topsfield projects are exempt from fees. In general, fees are not refundable although the Commission may waive a fee, or portion thereof, by the vote of a majority of the members present. Applicant's payment of fees does not imply project approval by the Commission.

b. The applicant shall submit an explanation of how the fee for the Bylaw was calculated (see Section R:10-17, TCC Form 1). If the Wetland Boundary Review indicates that the Resource Area Alterations are different from those reported on TCC Form 1, a fee adjustment shall be made.

c. Fees are as follows:

A. Request for Determination of Negligible Impact (RDNI)

To request issuance of a Determination of Negligible Impact (DNI) when a proposed project or activity would have a negligible or no detectible impact on the Resource Areas or their values and functions protected under the Wetlands General Bylaw and Regulations; the fee is $50. Issuance of a DNI is strictly at the discretion of the TCC, and is reserved for truly minor projects within Resource Areas including Buffer Zones. A DNI is issued as a letter to the Applicant, may or may not contain conditions, and does not need to be recorded at the Registry of Deeds. Examples of typical projects that would receive a DNI are installation of a fence using hand-held tools within Buffer Zone in existing lawn area at least 50 feet from a wetland, or cutting, and grinding but not removal of the stump, of a mature tree 90 feet from a wetland. If a proposed project is denied a DNI, it may be appropriate for a RDA or NoI; in such case the RDNI fee would be applied to the next application if the latter is made within one year of the RDNI filing date.

B. Request for Determination of Applicability (RDA)

1) To request authorization of minor work, the fees are as set forth in C (3) below, with a $100 minimum.
2) To request a formal review of Wetlands Resource Area delineation; the fee is $.50 per linear foot of each Wetland Resource Area boundary to be reviewed. The minimum fee is $50 per Wetlands Resource Area evaluated. These fees may later be applied to the review D (1) in a Notice of Intent (below). Requests for review of Resource Area boundaries/lines exceeding 200 linear feet and for projects other than single-family house projects shall be reviewed under the ANRAD process (C., below) only.

C. Abbreviated Notice of Resource Area Delineation (ANRAD)

The fee for an ANRAD is also $.50 per linear foot of Wetland Resource Area boundary, with a $50 minimum per Wetlands Resource Area evaluated.

D. Notice of Intent (NOI) (includes **Abbreviated Notice of Intent**)

1) A review of the Wetlands Resource Area boundaries delineation is required under a NOI unless it was done under a prior RDA, ANRAD or NOI. The fee is $.50 per linear foot of Wetland Resource Area boundary, with a $50 minimum per Wetlands Resource Area evaluated.
2) To repair or replace a failed septic system $200.00
   This fee applies only to septic systems that have the same design flow as the failed system. Repairs or replacements that would result in an increase over existing design flow shall be assessed on the same basis as a system for a newly constructed dwelling.
3) To request to alter a Resource Area:

a) Buffer Zone $.25 per square foot
b) Land Subject to Flooding $.25 per square foot
c) Land Under Water $.50 per square foot
d) Banks (each bank) $5.00 per linear foot
e) Freshwater Wetland $.50 per square foot
f) Vernal Pool 100-foot Buffer Zone $.50 per square foot
g) 200-foot Riverfront Area $.30 per square foot

Where Resource Areas overlap, the higher fee shall be due.

4) To request project activity in a Resource Area

a) Review of Drainage System and/or Flood Control Structure
i) on single-family house lot $150.00
ii) other $500.00

b) Restore to prior condition including waste clean-up $250.00

D. Request for Extension of Permit $100.00 per lot

E. Request to Amend Order of Conditions $100.00

F. Request for a Certificate of Compliance $100.00

G. Site Inspection for person not owning the land $50.00

Resource area boundaries shall not be determined; only the existence of jurisdictional areas shall be determined. Any such determination shall be based on topographic maps and a minimal site inspection. Due to the potential for inaccuracies (e.g. resulting from weather conditions), <u>any conclusions shall not be binding</u>. Formal, binding decisions shall be granted through the usual filing process (RDA, NoI, ANRAD, etc.)

H. Review of proposed soil testing in Buffer Zone $50.00

I. Request for Emergency Certification $50.00

An Emergency Certification shall be issued in accordance with the Wetlands General Bylaw and Regulations herein. No follow-up filing with the TCC is required for Town-initiated emergency projects that meet the within 24-hours notification and the 14-day certificate of emergency condition submission requirements of the Wetlands General Bylaw, and for projects determined by the TCC to meet the criteria for a DNI (A., above). In other cases, the $50 Request for Emergency Certification filing fee shall be applied to the required follow-up filing (e.g. RDA, NoI).

J. Topsfield Conservation Commission Administrator Permit (TCCAP) See Section R:10-5.k. of these Regulations. $50.00

Editor's Notes: Sections R:10-6 and R:10-17(TCC Form 1, *Topsfield General Wetlands Bylaw: Fee Calculation*) were amended by the Topsfield Conservation Commission at Public Hearings on March 22 & June 28, 2000, on January 23, 2002, on April 9, 2003, and on April 9, 2008. Section R:10-6.c.H. was added by the Topsfield Conservation Commission at a Public Hearing on December 14, 2005. Sections R:10-6.c. A. and .I. were added by the Topsfield Conservation Commission at a Public Hearing on April 9, 2008. Section R:10-6.J. was added by the Topsfield Conservation Commission with the addition of Section R:10-5.k. at the meeting on January 27, 2010.

R:10-7. SITE VISITS.

a. Submittal of a Request for Determination or a Notice of Intent shall be accompanied by the property owner's authorization (Section R:10-19, TCC Form 2) for members of the Commission or its agent(s) to visit the site to obtain information needed to review the Request or Notice, or to monitor compliance with the conditions of a Determination of Applicability or Order of Conditions. Where the person making a Request for Determination is neither the owner, his/her representative, nor project proponent, this requirement may be waived.

b. Prior to a site visit the site shall be prepared as follows:

1. The location of all proposed alterations must be staked and clearly labeled (corresponding to notations on site plan), including: lot corners; building corners; corners of septic system and expansion area; wells; driveways; roads; drainage system components; cleared and/or re-graded areas; replication areas; easements.
2. The boundaries of all resource areas within one hundred (100) feet of any proposed work (including on abutter's property, with their permission) shall be flagged using numbered flagging keyed to the site plan.

The owner, applicant or their representative, well versed in the plans, shall be present at the site inspection.

c. Site visits shall occur as necessary to obtain required information about the site and to monitor compliance with permit conditions. Site visits may occur without advance notice to an applicant/permit holder.

R:10-8. ACTIONS TO ISSUE DETERMINATIONS, ORDERS OF CONDITIONS (PERMITS) OR DENIALS; REQUESTS TO AMEND PERMITS; EMERGENCIES.

a. A public hearing may be continued in accordance with the provisions of 310 CMR 10.05(5)(b), by mutual agreement between the applicant and the Commission, or at the Commission's discretion to enable the applicant or others to present additional information or evidence.

b. The period of the time for making a Determination of Applicability may be extended by mutual agreement between the applicant and the Commission;

1. To an agreed-upon date, which shall be announced at the meeting; *or*
2. For a period not to exceed twenty-one (21) days after a submission of a specified piece of information. The date, time and place of the continued meeting shall be publicized in accordance with the requirements of the Bylaw.

c. The Commission shall issue its decision within twenty-one (21) days of the close of the public hearing. The decision shall include a finding of fact.

d. Determination of Applicability and Orders of Condition expire three (3) years from date of issuance.

e. A permit holder may request, in writing by certified mail, that a permit condition or approved plan be amended. Perfecting amendments, including but not limited to the correction of typographical errors, may be made in a public meeting. Where the Commission finds that the requested amendment does not represent a substantial change in purpose or substantial increase in the scope or potential for adverse impacts of the project, it may, after public notice, conduct a public hearing to consider and vote whether to amend the Order of Conditions. Where the Commission finds that the requested change does represent a substantial change in project purpose or a substantial increase in scope or potential for adverse impacts, a new Notice of Intent shall be required.

f. Certification of Emergency Work, including any required conditions, may be recorded at the Registry of Deeds. Fees may be charged in accordance with the fee schedule set forth in Section R:10-6c.

R:10-9. COMPLETION OF REQUIRED WORK.

a. Upon satisfactory completion of the project or work conditioned by the Order of Conditions, the permit holder shall make a written request, by certified mail, to obtain a Certificate of Compliance. The Commission may require certification and/or documentation, in the form of a report and/or as-built plans, by the appropriate professionals that the permit obligations have been satisfactorily fulfilled. Any deviations from the conditions set forth in the permit and approved plans shall be clearly identified, and their impacts on protected areas/interests shall be explained.

b. The Commission shall notify the owner to arrange a site visit to obtain information regarding compliance with the Order of Conditions.

c. If the Commission finds that work complies with the requirements of the Order of Conditions, it shall vote to issue a Certificate of Compliance. Any permanent conditions shall be clearly identified.

The Commission may issue a Partial Certificate of Compliance where it finds such action appropriate. Those unfulfilled conditions, any permanent conditions, and the time requirement for satisfying unfulfilled conditions shall be stated.

d. A Certificate of Compliance shall not be issued if the scope of any work or alteration of any Resource Area is greater than that authorized in the Order of Conditions. Relatively minor changes that result in the same or decreased impacts on interests protected by the Act and/or the Bylaw shall require an Amended Order of Conditions. Changes that result in increased impacts, a substantial change in scope, or a change in project purpose shall require the filing of a new Notice of Intent.

e. If the Commission finds that not all work has been completed in compliance with the requirements of the Order of Conditions, it shall deny the request for a Certificate of Compliance and specify the reason for the denial. The Commission may also deny the request because of the permit holder's failure to submit professional certification, as-built plans or other documentation, for failure to resolve an outstanding enforcement action, for failure to renew the Permit in timely fashion or for other good cause.

f. The Commission shall act upon the request within thirty (30) days of receipt of the request and professional certification/documentation of work.**R:10-10. SECURITY.**

a. *Required Security*. When Security is required, its amount shall reflect the cost to the Town to carry out any remedial work, inspection services and/or plan preparation necessary to bring the project into compliance with the requirements of the Permit, plus a contingency amount of up to twenty-five (25%) percent of these estimated costs. The Commission and/or any person knowledgeable in such matters, as designated by the Commission, shall determine said amount.

The applicant may request an estimate from the Commission. The cost of preparation of the estimate shall be borne by the applicant. The estimate shall remain effective for sixty (60) days.

The Security shall be approved by the Town Counsel and the Town Treasurer, and shall be contingent upon the completion of such work and observance of conditions within the time frame of the Permit or extension, if granted. The Security shall be approved and filed with the Town prior to the Order of Conditions becoming effective.

b. *Covenants*. The applicant may request, or the Commission may require, approval of the Notice of Intent and plans on condition that no part of the property may be sold and/or no building may be erected thereon until the Permit conditions have been satisfactorily fulfilled. Such performance guarantee may be in lieu of or in addition to deposit of Security.

The covenant shall either be contained in a separate agreement or shall be indicated on the approved plan(s), which agreement of plan(s) shall be filed at the Registry of Deeds before the Order of Conditions becomes effective. The covenant shall be reviewed and approved by Town Counsel prior to the Order of Conditions becoming effective.

c. *Release of Performance Guarantee*. For an Order of Conditions for which security was given, the Permit Holder may request a release from the security arrangement following the issuance of a Certificate of Compliance as provided in Section R:10-9 herein. The request for release of security shall be made in writing, by certified mail, to the Commission.

1. Provided no costs have been incurred by the Town to fulfill obligations of the Permit Holder, the Commission may authorize the release of the covenant or of the Town's interest in the security, to be returned to the person who furnished same.

2. Where a Partial Certificate of Compliance has been issued identifying additional action required by the Permit Holder and/or monitoring to ensure satisfactory fulfillment of conditions that requires a longer time period for evaluation, the Commission may agree to a revision in the security arrangement reflecting only the costs of the remaining obligations, inspections and/or documentation.

d. *Non-Compliance*. After expiration of an Order of Conditions or denial of a Certificate of Compliance, where satisfactory fulfillment of the Order of Conditions was ensured by Security, the Commission shall inform the Permit Holder and Bond/Surety Provider, in writing, of the details wherein work fails to comply with the Permit requirements. A copy of the notice shall be filed at the same time with the Town Clerk.

The Permit Holder shall be given a reasonable amount of time, determined by the Commission to be sufficient to make the necessary remedial measures. If at the end of the granted period of time, the Permit Holder fails to take the required steps to bring the project into compliance, the Security shall be applied by the Commission for the benefit of the Town, to the extent of the reasonable cost to the Town of completing the project and bringing it into compliance.

The Commission shall hire consultants, supervisors and/or whatever professionals are necessary to perform the work needed to bring the project into compliance and to provide required certification and/or documentation of the work. Any funds remaining following fulfillment of the requirements of the Order of Conditions shall be returned to the person who furnished the Security.

R:10-11. ENFORCEMENT.

a. When the Conservation Commission determines that an activity is in violation of the Bylaw or a Permit issued under the Bylaw, the Commission may:

1. Issue an Enforcement Order under the Bylaw, *and/or*
2. Issue fines under Section 62-17 of the Bylaw, *and/or*
3. Take any other action authorized by law.

b. Violations include, but are not limited to:

1. Failure to comply with a Permit, such as failure to observe a particular condition or time period specified in the Permit;
2. Failure to complete work described in a Permit;
3. Failure to obtain a valid Permit prior to conducting an activity subject to regulation under the Bylaw;
4. Causing, suffering or allowing of illegal work or activity;
5. Failure or refusal to comply with an Enforcement Order;
6. Failure or refusal to remove illegal fill, restore property, or obtain necessary approvals.

Each of the following shall be treated as a separate violation:

1. Violations of each or any items listed in paragraph 3.b. above;
2. Violations of any Order of Conditions;
3. Each 100 square feet or lesser portion of a Resource Area affected by a violation listed in paragraph 3.b. or Order of Conditions;
4. Each day that such violation(s) continue after initial notice.

Separate or ongoing violations with respect to the same property may be aggregated and cited in a single Notice of Violations Ticket.

c. An Enforcement Order shall be signed by a majority of the Commission. Where circumstances warrant, an Enforcement Order may be signed by a single member or agent of the Commission, followed by ratification of said Order by a majority of the

members at the next scheduled meeting of the Commission. An Enforcement Order may be recorded at the Registry of Deeds.

d. Upon satisfactory completion of the Enforcement Order conditions and removal of the violation, the Commission shall, by majority vote, remove the Enforcement Order and issue a notarized letter stating that the Enforcement Order is no longer in force.

Editor's Note: Section R:11.b. was amended by the Topsfield Conservation Commission at a Public Hearing on January 23, 2002.

R:10-12. SEVERABILITY.

If any section or provision of any part of these regulations or the application thereof is held to be invalid, such invalidity shall not affect any other section or provision thereof; nor shall it invalidate any permit or determination that has been issued previously.

R:10-13. EFFECTIVE DATE OF BY-LAW REGULATIONS AND SUBSEQUENT AMENDMENTS.

a. These rules and regulations, as amended, were approved on October 14, 1992, and will take effect on October 15, 1992. A certified copy is on file with the Town Clerk.

b. Subsequent amendments will become effective, following public notice and a public hearing to consider said amendments, upon affirmative vote of a majority of the Commission members present or upon a subsequent date specified at the time of their approval. No amendment shall become effective unless and until a certified copy is placed on file with the Town Clerk.

A copy of the rules and regulations, as amended, shall be filed with the Town Clerk on or before their effective date.

APPENDIX 1 OF REGULATIONS

PROJECT APPLICATION REQUIREMENTS AND FORMS

R:10-14. SUBMITTAL REQUIREMENTS.

a. Information requirements vary greatly according to the magnitude and complexity of a proposed project, the extent and types of resource areas involved and their proximity to the work, and other factors. The following guidelines indicate information that may be required to evaluate a particular site and proposed project. The Commission may deny any permit application if the information provided is incomplete or inaccurate.

b. *Minor Projects (Requests for Determination or Abbreviated Notice of Intent).* Required: an accurate site plan or drawing depicting locations and types of Resource Areas, location of proposed work, and topography; and a detailed description of the proposed work, potential impacts on protected resources, and proposed mitigation. The Commission may require additional information it finds necessary to making a decision or documenting the site or proposed work.

c. *General Requirements*. Unless otherwise specified or agreed, site plans shall be to a scale not more than one inch equals forty feet (1” = 40’) with a contour interval not more than two (2) feet; shall contain a benchmark referencing USGS elevation data; and shall be prepared, signed and stamped by a registered land surveyor. Hydrologic calculations and reports, designs of drainage systems, water control structures and the like shall be prepared, signed and stamped by a registered professional engineer.

d. Additional requirements for replication proposals and lake/pond management proposals are specified in Sections R:10-22 and R:10-23, respectively.

R:10-15. DOCUMENTATION OF EXISTING SITE AND PROTECTED INTERESTS.

1. Site plan(s) showing:
   - (a) All Resource Areas; Wetlands boundaries indicated by numbered flags corresponding to flags placed in the field,
   - (b) Ten (10)-year floodplain (per 310CMR 10.57); setback areas (per Section R:10-4e.),
   - (c) SCS soil classifications,
   - (d) Vegetational communities (general),
   - (e) Surface drainage areas,
   - (f) Existing structures; paved areas; drains and drainage structures including critical elevations; septic system components; water/utility lines; woods; roads; trails,
   - (g) Wells or water supply sources within five hundred (500) feet of proposed work,
   - (h) Property boundaries; easements; rights-of-way; restrictions,

(i) Off-site Resource Areas within one hundred (100) feet of proposed work.

2. Description and baseline data on existing site characteristics and protected interests that may be affected by project:

(a) Data on plant communities, soils and hydrology, supporting wetlands delineation; general plant communities which may be disturbed,

(b) Soils including CSC classifications and hydric classes; soil tests; subsurface conditions; depth to bedrock,

(c) Pre-development hydrology: watershed; tributary surface drainage areas; water-flow characteristics (depth; velocity; locations/dates of observations); site runoff calculations for ten(10)-, twenty-five(25)- and one hundred(100)-year storm events; existing drainage system components; groundwater levels and flows (location(s)/date(s) of observations),

(d) Water quality data: classifications of water bodies and/or groundwater; sampling data for relevant parameters,

(e) Fisheries value including food chain organisms; sampling data,

(f) Wildlife habitat characteristics and field observations,

(g) Water supply sources,

(h) Recreational values.

R:10-16. DOCUMENTATION OF PROJECT PROPOSAL AND ACTS.

1. Site plan(s) depicting proposed alterations of existing conditions:

(a) All Resource Area boundaries; ten(10)-year floodplain; and setback areas with altered area clearly depicted,

(b) Existing topography and proposed contours (shade cuts and fills distinctly and provide representative cross-sectional views),

(c) Exact locus and elevation(s) of proposed alterations, including structures (lowest elevation); paved areas; drainage system components and discharge points; wells or water lines; utilities; septic system components and setback distances; areas where existing vegetation or soils will be disturbed; replication or other replacement areas; erosion/sedimentation control measures; application/discharge points for pesticides/pollutants; property lines, rights-of-way, easements. Plan(s) should be clear, and keyed to identifying markers in the field.

2. Report on Proposed Project and Impacts.

(a) Impact of proposed project on all Resource Areas and protected interests prepared by a person(s) qualified to conduct environmental assessments. Where the project requires a waiver, the report shall include alternatives that would eliminate or reduce impacts to Resource Areas and protected interests.

(b) Drainage report including:

(i) Computations comparing site runoff before and after development, for the ten(10)-, twenty-five(25)- and one hundred(100)-year storm events. Presentation of data shall be clear and to the point, including an index, narrative and summary.

(ii) Plans showing location, elevation, cross-sections and profiles of all proposed drainage system components.

(iii) Stormwater residence time in detention/retention or sedimentation structures.

(c) Erosion/Sedimentation Control measures during and after construction; including contingency plans, described in detail.

(d) *Construction Implementation Phase*: detailed description and schedule, including equipment; access routes; sequence of construction; location of stockpiles; calculations of amounts of fill or excavated materials, their sources or destinations; stockpile locations and protection; temporary mitigation; protection of trees; proposals to dispose of unwanted materials; use of chemical products; anticipated problems and contingency plans; supervision.

(e) *Monitoring Plan* to evaluate impacts on Resource Areas and protected interests and compliance with permit conditions, including regular assessment and reports by a qualified professional.

(f) Other information may be required on a case-by-case basis.

R:10-17 TCC Form 1: TOPSFIELD WETLANDS GENERAL BYLAW: FEE CALCULATION

See Wetlands Protection Act (310 CMR 10.00) *Appendix B* - WETLANDS FEE TRANSMITTAL FORM to calculate fees due under State Regulations.

A. Request for Determination of Negligible Impact (RDNI), $50.00 **$_____**

B. Request for Determination of Applicability (**RDA**)

1) To authorize minor work, calculate fee per D. 3) below: $100 minimum. **$_____**

2) To review Resource Area delineation, for each Resource Area to be reviewed:

$.50 per linear foot of Resource Area; $50 minimum. **$_____**

C. Abbreviated Notice of Resource Area Delineation (**ANRAD**)

$.50 per linear foot of each Resource Area to be reviewed; $50 minimum. **$_____**

D. Notice of Intent (**NOI**) (includes Abbreviated Notice of Intent)

1) To review Resource Area delineation:

Review required unless already done under prior RDA, ANRAD or NOI

$.50 per linear foot of each Resource Area to be reviewed; $50 minimum. **$_____**

2) Repair or same design flow replacement of failed septic system

[In this case, D. 3) does not apply]: $200.00 **$_____**

3) To request to alter Resource Area

Where Resource Areas overlap, the higher fee shall be due.

a) Buffer Zone	_____sq. ft. x $.25/sq. ft.=$_____
b) Land Subject to Flooding	_____sq. ft. x $.25/sq. ft.=$_____
c) Land Under Water	_____sq. ft. x $.50/sq. ft.=$_____
d) Banks (each bank)	_____linear ft. x $5.00 =$_____
e) Freshwater Wetland	_____sq. ft. x $.50/sq. ft.=$_____
f) Vernal Pool 100-foot Buffer Zone	_____sq. ft. x $.50/sq. ft.=$_____
g) 200-foot Riverfront Area	_____sq. ft. x $.30/sq. ft.=$_____

4) To request project activity in Resource Area

a) Review of Drainage System/Flood Control Structure

i) on single-family house lot	$150.00	$_____
ii) other	$500.00	$_____
b) Restore to prior condition including waste clean-up:	$250.00	$_____

E. Request for Extension of Permit (OoC) or Delineation (ORAD):	$100.00 per lot	**$_____**
F. Request to Amend Order of Conditions:	$100.00	**$_____**
G. Request for a Certificate of Compliance:	$100.00	**$_____**

TOTAL FEE under TOPSFIELD **BYLAW** **$_____**

TOTAL FEE under **STATE** REGULATIONS (State portion + Town portion – from *WPA Wetlands Fee Transmittal Form*) **$_____**

TOTAL FEES DUE **$_____**

Make Checks Payable As Follows:

1. **Commonwealth of Massachusetts** (State portion of State fee – from *WPA Wetlands Fee Transmittal Form*) **$_____**

   [Send a copy of this check with 1 copy of the application to DEP-NERO.]

2. **Town of Topsfield** (Total of Town portion of the State fee + Total fee under Topsfield Bylaw) **$_____**

   [Submit to TCC with Application.]

Fees are payable to the Town of Topsfield upon submittal of any of the above Applications/Requests, **A.** through **G.** See R:10-6. FEES. Payment of fees does not assure approval of proposed work. In general, fees are non-refundable, except when adjustments to Resource Area delineations, and/or changes in the scope or location of the project result in reduction of the Resource Areas to be altered.

05-01-2008

R:10-19. TCC Form 2: SITE VISIT AUTHORIZATION FORM

I give permission to the Topsfield Conservation Commission and its agent(s) to enter the property listed below at all times during which the subject matter is pending or ongoing before the Commission (until a Certificate of Compliance is issued in the case of an Order of Conditions or when any other document expires).

Street Address of Property:

Assessors Map and Parcel Number:

Name of Owner (please print) _____

Signature of Owner_____

Date_____

OR

Signature of Authorized Representative of Owner:

_____

Date_____

Name of Owner's Authorized Representative (please print):

_____

Representative's Address and Telephone Number:

Editor's Note: Section R:10-19 was amended by the Topsfield Conservation Commission at Public Hearings on March 22,2000 and on April 9, 2003.

R:10-20 TCC FORM 3

CERTIFICATION OF DISCLOSURE OF PERSONAL INTERESTS OF CONSULTANT(S)

(Pursuant to Topsfield Wetland Regulation R:10-5.c)

To: Topsfield Conservation Commission

Fr: Name:_____

Title:_____

Company:_____

License/Registration # (if any:_____

Telephone #:_____

Address:_____

_____

_____

Re: (Circle one) **Certification** **Disclosure**

Project Description:_____

_____

_____

_____

Project Location:_____(Topsfield, MA)

(Check one)

- ❑ I hereby certify to the Commission that neither I nor any member of my company or family, nor any business partner or associate has any interest in the above project beyond standard reasonable fees paid for objective professional services rendered on the project.

OR

- ❑ I hereby disclose the following interest(s) in the above-described project:

  Nature of interest(s):_____

  _____

  _____

  _____

  Persons/entities holding the interest(s):_____

  _____

  _____

SIGNED UNDER PENALTIES OF PERJURY:

Signature:_____ Date:_____

[Affix professional stamp if any]

12-6-2000

R:10-18. TCC Form 4
TOPSFIELD CONSERVATION COMMISSION

To the Applicant:

Upon filing a Request for Determination of Applicability, an Abbreviated Notice of Resource Area Delineation, a Notice of Intent or an Abbreviated Notice of Intent under the Topsfield Wetlands General Bylaw, you are required to notify all abutters within **100** feet of the property for which the filing is made.

An abutter is the owner of property within one hundred feet of the boundary of the applicant's/project property, including property located across a street, way, river or stream within the one hundred feet.

You can obtain the names and addresses at the Assessor's Office at the Topsfield Town Hall. Please produce the list and proof of notification at the first Public Hearing/Meeting for your project.

List of abutters to property located at _____

List prepared by _____

List of Abutters:

Editor's Note: Section R:10-18 was amended by the Topsfield Conservation Commission at a Public Hearing on March 22, 2000, and again at a Public Hearing on January 23, 2002. The form was changed from Form A to Form 4 at a Public Hearing on December 14, 2005.

12-14-2005

R-1029

R:10-27. TCC FORM 5 Notification of Abutters Under The Massachusetts Wetlands Protection Act and/or The Topsfield Wetlands General Bylaw

In accordance with the second paragraph of the Massachusetts General Laws Chapter 131, Section 40, and Section 62-7. of the Topsfield Wetlands General Bylaw, you are hereby notified of the following:

A. The Name of the applicant is:

_____

B. The applicant has filed a:

_____ Request for Determination of Applicability (RDA)

_____ Notice of Intent (NoI)

_____ Abbreviated Notice of Intent (ANoI)

_____ Abbreviated Notice of Resource Area Delineation (ANRAD)

_____ Other

with the **Topsfield Conservation Commission** seeking:

_____

_____

within/of an Area Subject to Jurisdiction/Protection under the Massachusetts Wetlands Protection Act and/or the Topsfield Wetlands General Bylaw.

C. The Address of the property where the activity is proposed is:

_____

D. Copies of the request or permit application may be examined at the **TOPSFIELD CONSERVATION COMMISSION OFFICE, TOPSFIELD TOWN HALL, 8 WEST COMMON STREET, TOPSFIELD** between the hours of **9:00 AM** and **12:00 PM** on **MONDAY** and **WEDNESDAY**, or call for an appointment at 978-887-1510.

E. Copies of the Request or Permit Application may be obtained by calling 978-887-1510. **THERE IS A 25 CENTS PER PAGE CHARGE FOR COPYING EXPENSES**.

F. Information regarding the date, time, and place of the Public Meeting/Hearing may be obtained from **THE TOPSFIELD TOWN HALL BULLETIN BOARD,** (MONDAY – THURSDAY 8:00 a.m. - 4:00 p.m. and FRIDAY 8:00 a.m. - Noon) not less than forty-eight (48) hours in advance, or by contacting the Topsfield Conservation Commission office at 978-887-1510 between the hours of 9:00 a.m. and 12:00 p.m. on MONDAY and WEDNESDAY.

NOTE: Notice of the public meeting/hearing, including date, time and place, will be published at least five (5) business days in advance in a local newspaper.

NOTE: You also may contact The Topsfield Conservation Commission or the DEP NORTHEAST REGIONAL OFFICE at 978-694-3200 for more information about this application, the Wetlands Protection Act, or the Wetlands General Bylaw.

R:10-27 TCC FORM 6

FILE NUMBER (TCC Number)
ADDRESS
APPLICANT

TOPSFIELD CONSERVATION COMMISSION

REQUEST FOR DETERMINATION OF NEGLIGIBLE IMPACT

Applicant(s):

_____ _____

Name(s) E-mail Address

_____ _____

Phone Number Fax Number (if applicable)

Project Location:_____Map: _____ Lot: _____

(Address)

Resource Area(s): _____

_____ _____

Requested activity/work description: _____

_____

_____

Plan or Sketch Attached: _____

(Title and Date)

(Show property boundaries, existing structures, and other relevant features, approximate Resource Area boundaries, and distance(s) of proposed activities from those boundaries.)

Signature of Applicant(s):_____

Filing Date: _____ **$50.00 fee paid** _____

(Date)

Revision 02-01-2010

Wetlands Delineation Methodology
Policies And Guidelines: Wetlands Replication, Lake/Pond Management And Drainage Maintenance Projects

R:10-21. FRESHWATER WETLANDS BOUNDARY DELINEATION METHODOLOGY.

a. *Freshwater wetlands* are identified by the predominance of hydrophytic vegetation or the presence of hydric soils or wetlands hydrology. Delineations shall be done primarily on the basis of vegetation. Soils observations and/or hydrologic observations shall be conducted when there is an indication that the wetland boundary may be more extensive than that indicated by vegetation.

1. *Vegetation*. Freshwater wetlands are lands where fifty (50%) percent or more of the vegetation consist of plants which are wetlands indicators. Determination of the wetland boundary may require different techniques and levels of detailed data collection and analysis, depending on the sites in question. In any case, plant communities should be sampled using standard scientific plant community sampling methods, with appropriate, documented adjustments for site-specific conditions.

(a) Where a detailed survey is necessary, each plant community in the wetland/upland boundary area should be sampled. Data should be obtained for each vegetative stratum in the plant community (canopy/under story/ground cover, or otherwise as appropriate to the site). The calculation of fifty (50%) percent shall pertain to the spatial extent of species in a particular stratum. Spatial extent shall be measured by basal area for trees (over five (5) inches in diameter and higher than twenty (20) feet) and by percent aerial cover for other vegetation.

(b) The current *United States Fish and Wildlife Service National List of Plant Species That Occur in Wetlands: Northeast* shall be used to determine the wetland indicator status of plant species. (Any divergence from the list's classification shall be well documented technically). Species listed as OBLIGATE (OBL), FACULTATIVE WETLAND (FACW) and FACULATATIVE (FAC) shall be considered wetland indicators. A species listed as FACULATIVE UPLAND (FACU) shall be considered a wetland indicator if

i) it is listed in GLc.131 §40, or
ii) it is growing in hydric soils, or
iii) it is growing in an area where there is evidence of wetland hydrology.

The categories of FACW, FAC and FACU shall include the + and - designations for each respective category.

(c) The applicant shall provide the name and credentials of the person(s) responsible for the wetlands boundary delineation. The boundary delineation report shall contain a description of sampling methods, location of sample plots or transects, and all data and analysis regarding plan community composition. The Commission may require additional sampling, changes in plot or transect size, configuration or location to allow verification of results.

(d) The Commission may require evaluation of soils and/or hydrology where site conditions indicated that the wetlands may be more extensive than the area dominated by wetland vegetative indicators, or in the event that there is a dispute regarding the wetland delineation. The following are examples of conditions that may require evaluation of soils and/or hydrology:

(1) Recent or ongoing disturbance prevents evaluation of a natural plant community; *or*

(2) The plant community is dominated or co-dominated by FACU plants, but other plants are mostly wetland indicators; *or*

(3) The USDA Soil Conservation Service maps for the area show hydric soils beyond the area flagged; *or*

(4) There is evidence of wetland hydrology beyond the area flagged; *or*

(5) There is evidence that fill or other alteration of wetland has occurred.

2. *Soils.* An area that has undrained hydric soils is a freshwater wetland. Where hydric soils have been drained, the applicant/owner may be required to provide information regarding the draining so the Commission may determine whether the area is subject to protection.

Hydric soils are soils that are saturated, flooded or ponded long enough in the year to develop anaerobic conditions in the upper eighteen (18) inches. The technical criteria for hydric soils are set forth in *Hydric Soils of New England*, University of Massachusetts Cooperative Extension, Bulletin C-183, Amherst, MA. Persons unfamiliar with soil evaluation or terminology should consult this bulletin and/or a professional soil scientist, should soil evaluation be indicated. The USDA Soil Conservation Service (SCS) in Acton may be of assistance.

(a) *Guidelines for recognizing hydric soils*. The SCS has classified soils in Topsfield (see Soil Survey of Essex Count, MA-Northern Part, USDA Soil Conservation Service, 1981). Soils classified as “Very Poorly Drained” or “Poorly Drained” are considered hydric, unless field examination of soils indicates otherwise. “Somewhat poorly drained” soils may or may not be hydric, and indicates the need for field examination.

(b) Organic soils occurring in Topsfield are hydric. Organic soils are soils with at least eighteen (18) inches of organic material in the upper profile. Organic soils include mucks, peats and intermediates (mucky peats, peaty mucks).

(c) Hydric mineral soil may be identified by close examination and evaluation of the upper eighteen (18) inches of soil. Soil coloration is evaluated using a *Munsell Soil Color Charts* (published by Killmorgen Corp., 2441 N. Calvert St., Baltimore MD 21218). Where cultivation has occurred, the colors of topsoil are generally not reliable indicators of hydric properties; therefore soils below another ten (10) inches should be evaluated.

(1) Soils are hydric if soils within eighteen (18) inches of the surface are gleyed (bluish, greenish or grayish; use Munsell gley chart), or if the dominant color in the soil has a chroma of two (2) or less

with mottles, or one (1) or less without mottles. Mottles are spots or blotches of a different color or shade, interspersed within the dominant (matrix) color. Chroma is shown on the Munsell charts.

(2) Where such gleyed or low-chroma soils lie over soils of high chroma, evaluation by a soil scientist may be indicated. Where soils are coarse textured or sandy, soil color cannot be used as an indicator. Hydric sandy soils may have an organic surface layer overlying the sandy soil, or dark vertical streaking of subsurface layers by organic matter. Evaluation by a soil scientist may be required.

(3) Other field indicators of hydric soils include (without limitation): a thick (8”-16”) organic surface layer; rotten egg odor indicating presence of sulfides; iron and/or manganese concretions appearing as rusty-brown or blackish spots; oxidized root-rhizome channels; and expert observation of reducing conditions using a chemical indicator.

3. *Hydrology*. An area where ponding, flooding or saturation occurs for extended periods sufficient to create anaerobic conditions within eighteen (18) inches of the ground surface is a freshwater wetland.

(a) Because hydrology may vary considerably for any particular site, on a daily, weekly, seasonal, annual or other basis, a determination of wetland hydrology shall not require proof that the site is wet for a specified length of time, or at a specific time of year. Hydrology should generally be evaluated to establish whether an area is a wetland or not, but delineation of the boundary line should rely primarily upon vegetation analysis and secondarily upon soils analysis.

(b) To determine whether an area has wetland hydrology, the Commission will consider recorded data (such as stream or lake data, flood predictions, piezometer data and historical flood records); aerial photographs; photographs or videos of the site (clearly labeled with locus, data, photographer); and field indicators that provide direct or indirect evidence of inundation or soil saturation.

(c) Field indicators of wetlands hydrology include, without limitation:

(1) Observation of flooding or ponding (taking into account recent weather conditions);

(2) Observation of soil saturation within eighteen (18) inches of the ground surface during the growing season;

(3) Water-stained leaves on ground (appearing grayish or blackish);

(4) Oxidized root-rhizome channels in soil;

(5) Water marks or strains on tree trunks, structures, etc.;

(6) Silt deposited on leaves, plants, structures, etc.;

(7) Drift lines of debris deposited by flowing water;

(8) Areas of bare ground indicating prolonged periods of standing water;

(9) Morphological (or structural) plant adaptations for growth in permanent/periodic flooded or saturated soil, such as:

Buttressed (swollen) tree trunks; multiple tree trunks; modified aboveground roots (pneumatophores); adventitious ("air") roots; shallow roots; oversize "pores" (hypertrophied lenticels) on plant stems; air-filled (spongy or hollow) tissue in roots and/or stems; floating leaves.

(d) Qualifications of any person submitting field observations are subject to the approval of the Commission. Observations should be documented by photographs and/or field notes.

(e) Where calculations of flood hazard are presented, such calculations shall be prepared, signed and stamped by a registered professional engineer.

(f) Sources of information on site hydrology may include: Army Corps of Engineers; US Geological Survey; Soil Conservation Service; Federal Emergency Management Agency; watershed associations; Board of Health; Town Engineer; town records; registered professional engineer; owner or developer. Other sources of information may be available for specific sites.

(g) *Dispute of Wetlands Delineation.* During an official site visit to review the wetlands boundary delineation, the applicant/representative shall adjust wetlands boundary flags in the field at the direction of the Commission members or agent. These adjustments shall be shown on a revised site plan.

Where the applicant/representative disputes the judgment of the Commission, he/she may establish survey plots and or transects (according to standards scientific methodology) and submit sampling data from these plots to the Commission. The Commission shall have the opportunity to review the sample plots/transects, required adjustments or additional samples to be made, and to collect data to verify the results. Soil tests, evaluation of wetlands hydrology, and/or review by additional professionals subject to the approval of the Commission, may also be required. Where necessary, representatives of the applicant and the Commission shall meet in the field to review all samples and observations. The decision of the Commission shall be final, subject to the applicant's right of appeal pursuant to Section 62-11 of the Bylaw.

R:10-22. REPLICATION POLICY AND GUIDELINES.

a. Freshwater wetlands are protected for the important public benefits they provide. Past wetland policy has allowed the destruction of natural wetland areas on the promise of creation of "replication" areas. However, replication areas do not always replace all the functions of natural wetlands, and replications of forested wetlands and isolated wetlands of the types commonly found in Topsfield are especially difficult, and, often unsuccessful.

b. Permitting the destruction of a freshwater wetland makes the public assume the risk of loss of the wetland's beneficial functions. Because the Bylaw requires protection of the public interests associated with wetlands, and because there is insufficient evidence that replication can duplicate natural wetland functions, the policy of the Topsfield Conservation Commission shall be to deny any project proposals

involving destruction of freshwater wetlands. Only under unusual and extenuating circumstances may the Commission allow destruction of freshwater wetlands pursuant to Section R:10-4i. Requirements set forth below shall also apply to proposals to destroy and replicate vernal pool habitat.

c. Where the requirements of Section R:10-4i are met and a waiver is granted, the applicant must also demonstrate an understanding of the difficulties and costs associated with replication projects, and must commit sufficient resources to ensure successful implementation.

d. The following guidelines shall apply:

1. The replication area shall be at least one and a half times the area destroyed.

2. The replication shall match the destroyed wetland to the maximum extent possible, in reference to the following parameters:

(a) Wetland type(s)

(b) Spatial relationship to associated water body/way (adjacency, location)

(c) Groundwater and surface water hydrology and flood control

(d) Vegetational community composition and structure

(e) Soils composition, structure, permeability

(f) Fisheries and wildlife habitat values

(g) Water quality protection and enhancement

(h) Sedimentation dynamics.

3. Creation of the replication area shall occur prior to the other site work, to the extent possible.

4. Security pursuant to Section R:10-10 shall be required.

5. The applicant shall provide an expert consulting team with a proven track record in planning and managing wetland replication projects. Expertise shall include engineering, hydrology, botany, biology/ecology, soil science, geology/geohydrology, horticulture, and/or other relevant areas. A list of the consultant team's previous replication projects and other appropriate credentials shall be submitted, and is subject to approval by the Commission.

The consultant team shall be responsible for data collection; site documentation; project planning including preparation of required plans and reports; supervision of project implementation; troubleshooting and corrective action; monitoring; reports on all activities to the Commission.

6. Cooperative scientific research efforts in conjunction with accredited universities are encouraged.

7. Restoration of natural wetlands destroyed by prior filling/alteration is encouraged where feasible.

8. Replication areas shall not be used for direct discharges of wastewater or stormwater, or for detention/retention of stormwater.

9. The *Notice of Intent* shall include data to fully and accurately describe and document:

(a) The general setting, including: relationship to water body/way; seasonal water levels including dry weather and flood conditions; water supply issues; water quality issues; direction of groundwater flows; tributary surface drainage areas; normal and peak runoff conditions; surficial soil and geologic characteristics in tributary areas; land use within five hundred (500) feet; habitat values;

(b) Specific site characteristics of wetland to be destroyed (plans one inch equals five feet (1" = 5'); cross-sections, plan views, reports, photos etc. as appropriate to fully depict existing site including: topography including microrelief; soil profile and permeability; depth to bedrock; surficial and groundwater hydrology including seasonal variations; extent of flooding; plant community(ies) composition and structure; fisheries and wildlife habitat; water quality (list parameters);

(c) Specific site characteristics of proposed replication/restoration area (plans and documentation as paragraph (b) above). Particular data regarding site hydrology, geohydrology, groundwater hydrology must be included to document the suitability of the site to support wetland vegetation, and to persist over time. In addition, the existing values of the upland area must be evaluated;

(d) Planimetric calculations, critical and spot elevations; benchmark(s).

10. The consulting team shall identify potential problems and prepare contingency plans to be reviewed with the Commission.

11. Implementation shall be undertaken by skilled personnel under supervision of a wetland scientist experienced in wetland replication work. A detailed implementation plan and schedule shall be submitted to the Commission. Site preparation techniques must be detailed, including: type of equipment; rough grading and verification; verification of groundwater levels; sources and handling techniques for soils; plant species list; quantities and sources of native plant materials; handling of plant materials; planting scheme; hydraulic connection to wetland; protection against erosion/sedimentation; and other appropriate data. Documentation of site work to create the replication area and fill/alter the existing wetland shall be prepared and submitted to the Commission.

12. A monitoring plan shall be prepared and submitted to the Commission. Qualified personnel shall take measurements/samples needed to assess the progress of the replication area in replacing the functions of the natural wetland. Reports shall be submitted quarterly unless otherwise specified by the Commission.

Monitoring shall address, at a minimum:

(a) Erosion/sedimentation control

(b) Plant community reestablishment: species; distribution; % cover by stratum; vigor; mortality; growth rates; successional patterns; need for replanting (species, dates, action taken)

(c) Evidence of wetland hydrology

(d) Evidence of reestablishment of habitat value, repopulation by animals

(e) Water quality parameters

(f) Problems and actions taken

13. No certificate of compliance shall be issued for any replication area unless it has been established for at least two (2) years, and has met criteria specified.

14. Further alterations of wetlands on the subject property will be limited or prohibited. A permanent condition recorded against the title to the property shall specify this limitation. Replication area shall be subject to protection afforded to natural wetlands.

R:10-23. LAKE/POND MANAGEMENT PROJECTS.

a. *Policy*. Topsfield's lakes and ponds are often the subjects of proposals to dredge, apply chemicals, remove vegetation, change water levels, or otherwise alter them to enhance a certain use or interest.

In some cases, enhancement of one use may create other benefits; in other cases, a treatment to benefit one use may be harmful to other uses. In addition, because of the complex hydrology and ecology of many lakes and ponds, alteration of any one aspect of a lake or pond typically creates multiple effects, some of which may be unanticipated and adverse.

For these reasons, the Commission requires that an applicant provide detailed information, as outlined below. The Commission may require a diagnostic-feasibility study prepared by professionals qualified in lake/pond management and restoration.

The Commission will consider all interests in evaluating lake/pond management proposals. Where conflicts arise, interests protected by both GLc.131 §40 (the Massachusetts Wetlands Protection Act) and the Topsfield General Wetlands Bylaw shall take precedence. For example, where a recreational interest may conflict with protection of wildlife habitat, the wildlife habitat protection shall prevail.

The Commission recognizes that many ponds in Topsfield are man-made and were created for specific uses (agriculture, recreation, fire protection, wildlife habitat, fish production, sedimentation control, etc.). Maintenance of such ponds/uses may be permitted, when the applicant provides sufficient information to document the existing conditions and values provided by the pond, and demonstrates that the proposal will not create any significant or permanent adverse impacts on protected interests or other property. Any such project shall require the filing of a *Notice of Intent*. Permits required by other authorities shall be obtained before an *Order of Conditions* may become effective.

Where research reports indicate a significant potential for adverse impacts from a proposed management technique, the Commission shall deny the project. For example, proposals shall be denied which may result in increased flood hazard (shoreline, upstream or downstream); changes in groundwater levels (dry up wells, damage septic systems, etc.): alteration to vegetational communities; loss of habitat; increases in invasive species; loss of native species; increased water pollution (sediments, oxygen-demand, nutrients, toxins); or other threats to protected interests.

The Commission does not presume that removal of aquatic vegetation is beneficial or harmful, but instead will evaluate each case individually.

b. *Information That May Be Required: Lake/Pond Management Projects.* The Commission may require a diagnostic-feasibility study of the waterbody and management proposal, prepared by professionals qualified in lake/pond management and restoration, whose qualifications are subject to approval by the Commission.

1. Pond Data: Size; depth; volume; basin shape; side slopes; dams; inlet/outlet structures; sediment analysis; man-made or natural; original and current use(s).
2. Watershed: Size; soils; slopes; land use/cover; point/non-point sources of pollutants.
3. Hydrologic Data: Flood data; flow characteristics; residence time; downstream discharge volumes and rates.
4. Resource Values:
   (a) Water quality: Dissolved oxygen; pH; temperature (depths); transparency; bacteria; nutrients; oxygen-demand; algae; other parameters as appropriate.
   b) Pollution attenuation: Sedimentation rate; composition of sediments; nutrient budgets.
   (c) Fisheries: Species and specific habitat requirements; food sources (sampling) including invertebrates.
   (d) Wildlife habitat: Observations; food sources; shelter; breeding habitat; over-wintering; consider value to amphibians, reptiles, birds and mammals.
   (e) Value to flood control; storm damage prevention; downstream and upstream interests which may be impacted.
   (f) Water supply: Wells, reservoirs, downstream uses.
5. Reason for Project:
   (a) Documentation of problem:
      Excess algae: types
      Excess "weeds:" species
      Sediments
      Shallowness
      Water quality
      Fishing
      Other
   (b) Areas of lake/pond affected: Uses of lake that are impaired;
   (c) History of problem(s) and past control measures: Cause(s).

c. *Proposed Solution:*

Details of how solution will address causes of problems/reasons for project.

Part of long-term management strategy?

Nature and extent of alteration of Resource Area(s).

Applicable thresholds for alterations.

Details of implementation (equipment; mitigation controls; scheduling; disposal/discharge issues; longevity of impacts; contingency; personnel/ supervisor; etc.).

Other required permits.

Impacts on protected interests.

Experience with management technique; associated benefits and problems.

Duration of benefits/Duration of problems and impacts.

d. Alternatives.

e. Monitoring proposal.

f. Security provision.

R:10-24. DRAINAGE MAINTENANCE PROJECTS: POLICIES AND GUIDELINES.

a. The Town receives numerous requests for maintenance of ditches, drainage easements and other streams, usually when someone experiences a drainage problem on their property. The Commission recognizes that certain maintenance projects must occur to prevent flooding of streets and damage to property.

b. Unfortunately, drainage maintenance projects can cause damage to areas or interests protected under the Massachusetts Wetlands Protection Act and the Topsfield General Wetlands Bylaw. For example, dredging often disrupts aquatic habitat and causes excessive siltation downstream; removing vegetation may eliminate fish or wildlife habitat, or diminish water quality; and ditching may exacerbate flooding on downstream properties.

c. The Conservation Commission reviews drainage maintenance proposals, under authority of the Massachusetts Wetlands Protection Act and the Topsfield General Wetlands Bylaw, to ensure that public interests associated with wetlands are understood and protected. The review considers the nature of the Resource Areas and protected interests affected by the project, as well as the seriousness of the drainage problem. The following guidelines govern the consideration of drainage projects:

1. The Commission must be notified in advance of all drainage maintenance projects. Notification must allow sufficient time for the Commission to determine what level of review and authorization is required, and for statutory permitting procedures to occur.

No prior notification or review is required for routine catch basin cleaning, nor for hand removal of debris (not involving cutting, uprooting, digging, or any activities requiring tools).

Cleaning of detention ponds, sedimentation ponds, roadside ditches (which can be accessed from the road pavement), pipes, culverts, headwalls and riprap by the Town Highway Department may be permitted by the TCC without filing of a Notice of Intent.

2. The Commission may permit drainage maintenance projects which restore documented pre-existing flow capacities or storage capacities of drainage ways or drainage structures, as provided in Section R:10-4g of these regulations and 310 CMR 10.53(3)(k). Such maintenance projects may include repair or exact replacement of drainage structures, removal of excess sediments, or cutting or removal of vegetation.

3. The Commission will work with the Topsfield Highway Superintendent, Town Engineer and/or other appropriate officials to evaluate drainage maintenance needs and to ensure that required permits are obtained.

4. The Commission will consider the extent and seriousness of the drainage problem in light of the extent of proposed alterations to protected resource areas and the impacts on protected interests. The Commission may deny a project if it finds that protected resource areas or interests will be seriously impaired.

5. All Resource Areas associated with the drainage way or drainage structure must be identified (body of water: stream; banks; land under water; freshwater wetland; bordering land subject to flooding; buffer zone). Protected interests at the project site, upstream and downstream must be identified.

6. General information requirements are indicated below:

(a) Does the drainage way flow only in direction response to precipitation?

(b) Does characteristic wetland vegetation grow in the channel, on the banks, or bordering the stream? Does the stream flow into or out of a wetland?

(c) What habitat characteristics would be altered by the proposed project?

(d) What downstream interests may be affected?

(e) Is there clear documentation indicating location, size, elevation, inverts, flow capacity or storage capacity of the channel or drainage structure at a prior time?

(f) What is the nature and extent of the drainage problem, and how quickly is it likely to recur?

(g) If sediment removal is proposed, how will the depth and extent of the dredging/removal be determined? Where will sediments be placed (bank, wetland floodplain, buffer zone)?

(h) Is equipment to be used? How large is it, especially in relation to the size of the channel? How will it access and exit the stream? Will wetlands or bank be altered by access, direct work, placing dredged materials, etc.? Will vehicles be driven in or park in the wetland?

7. General conditions applying to drainage maintenance work include (without limitation):

   (a) Work shall occur only during dry or low-flow conditions. Water diversion to avoid the work area may be required. Work should begin upstream and proceed downstream.

   (b) Hay bale/silt fence check dams shall be properly installed across drainage channel/outlet prior to work. As sediments accumulate at the check dams, they must be cleaned out to maintain the sediment control capacity.

   (c) Contingency plans and materials sufficient to deal with sudden rains or high water should be readily available during work.

   (d) Work shall be confined to the existing channel. Sediment removal shall not exceed original channel depths. The banks of the stream and the wetland shall not be disturbed.

   (e) Where machinery is to enter a stream to remove sediment, the machinery must be less than the width of the stream to protect the banks, and the bucket must be toothless and less than the width of the stream. The access point for the machine must be specified, and must be chosen to prevent disturbance of the bank.

   (f) Sediments shall not be placed on the banks, in the wetland, or floodplain.

   (g) Where cutting/removal of vegetation is permitted, vegetation shall be removed from the resource areas. A member of the Commission or the Conservation Administrator must specifically authorize cutting of any trees on-site.

   (h) Where habitat values are significant, cutting or removal of vegetation may be limited or prohibited, and machinery may be prohibited from the stream.

   (i) The maintenance projects considered under the guidelines shall not include any enlargement of pre-existing structures, nor ditching or channelizing beyond the existing stream banks.

   (j) Channel width and depth should be documented so that future maintenance proposals can be readily reviewed.

   (k) A continuing maintenance proposal for the drainage way/structure should be established.

R:10-25. STORMWATER MANAGEMENT AND DRAINAGE FOR CONSTRUCTION PROJECTS:

PREAMBLE:

Conservation Commission Authority and Responsibility: Conservation Commissions were given responsibility in 1972 for administering the Wetlands Protection Act (M.G.L. Ch. 131, § 40) (the Act). In 1996 MassDEP created the Stormwater Management Policy and Stormwater Management Standards pursuant to its authority under the Wetlands Protection Act, M.G.L. c. 131, § 40, and the Wetlands Protection Act Regulations, 310, CMR 10.00 (Act Regulations), giving Conservation Commissions responsibility for local management of stormwater. In 2005, MassDEP incorporated a reference to Stormwater Management into the Act Regulations, 310 CMR 10.00. Effective January 2, 2008, MassDEP applied the Standards, when reviewing projects subject to jurisdiction under the Act, by incorporation into the Act Regulations. Mass DEP also applied the Stormwater Management Standards when reviewing projects that require a water quality certification pursuant to 314 CMR 9.00. MassDEP also incorporated into 310 CMR 10.00 and 314 CMR 9.00 definitions of the terms used in the Stormwater Management Standards.

Inclusion of stormwater regulations in the Topsfield Wetlands General Bylaw Regulations: The goal of the stormwater regulations is protection from the adverse impacts of storms and flood waters, promotion of groundwater recharge, encouragement of the use of low impact development (LID) techniques, and improved operation and maintenance of stormwater structures and facilitators. Storms and floodwaters may adversely affect the functions and values of wetlands resources, and are therefore the purview of the Conservation Commission. Such adverse impacts include erosion, pollution of surface and groundwater, loss of recharge to groundwater, increased turbidity of surface water, and destruction of natural features and wildlife habitat. These Regulations reiterate portions of the Massachusetts stormwater regulations in order to facilitate the implementation of the Massachusetts regulations and to expand upon those with supplementary stormwater management standards for protecting Resource Area functions and values important to Topsfield.

DEFINITIONS:

Environmentally sensitive site design means design that incorporates low impact development techniques to prevent the generation of stormwater and non-point source pollution by reducing impervious surfaces, disconnecting stormwater sheet flow paths and treating stormwater at its source, maximizing open space, minimizing disturbance, protecting natural features and processes, and/or enhancing wildlife habitat.

Illicit discharge means a discharge that is not entirely comprised of stormwater. Notwithstanding the foregoing, an illicit discharge does not include discharges from the following activities or facilities: firefighting, water line flushing, landscape irrigation, uncontaminated ground water, potable water sources, foundation drains, air conditioning condensation, footing drains, individual resident car washing, flows from riparian habitats and wetlands, dechlorinated water from swimming pools, water used for street washing and water used to clean residential buildings without detergents.

Low impact development techniques mean innovative stormwater management systems that are modeled after natural hydrologic features. Low impact development techniques manage rainfall at the source using uniformly distributed decentralized micro-scale controls. Low impact development techniques use small cost-effective landscape features located at the lot level.

Stormwater best management practice means a structural or nonstructural technique for managing stormwater to prevent or reduce non-point source pollutants from entering surface waters or ground waters. A structural stormwater best management practice includes a basin, discharge outlet, swale, rain garden, filter or other stormwater treatment practice or measure either alone or in combination including without limitation any discharge pipe, overflow pipe, conduit, weir control structure that: (a) is not naturally occurring; (b) is not designed as a wetland replication area; and (c) has been designed, constructed, and installed for the purpose of conveying, collecting, storing, discharging, recharging or treating stormwater. Nonstructural stormwater best management practices include source control and pollution prevention measures.

REGULATIONS:

1. There shall be no increase in stormwater runoff from a driveway or construction area to street drains or to an abutting property.
2. Building structures shall have drip trenches or other means of infiltration.
3. All driveways shall be pitched so that water does not flow into the roadway.
4. Porous walls or other means of infiltration are acceptable for catch basins.
5. The first 1 inch of stormwater flowing from parking or building lots shall be pretreated (with BMPs) in compliance with State stormwater management standards prior to entering any Town stormwater system, waterway or Wetland Resource Area.
6. Onsite infiltration devices shall be used so that post-construction lot surface runoff shall not be greater than pre-construction lot surface runoff.
7. Activities within Buffer Zone and/or Riverfront Area shall be Low Impact Development techniques to the greatest extent possible.
8. Work performed, including any structure such as a roadway, driveway, or any other structure, in Buffer Zone or Riverfront Area shall be mitigated, at a ratio of at least 1:1, with implementation of Low Impact Development techniques outside of these Resource Areas on the property.
9. No new stormwater conveyances (e.g. outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of Topsfield.
10. Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates.
11. Loss of annual recharge to ground water shall be eliminated or minimized through the use of infiltration measures including environmentally sensitive site

design, low impact development techniques, stormwater best management practices and good operation and maintenance. At a minimum, the annual recharge from the post-development site shall approximate the annual recharge from the pre-development conditions based on soil type. This Standard is met when the stormwater management system is designed to infiltrate the required recharge volume as determined in accordance with the current Massachusetts Stormwater Handbook.

12. Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). This Standard is met when:

    a. Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan and thereafter are implemented and maintained;

    b. Structural stormwater best management practices are sized to capture the required water quality volume determined in accordance with the current Massachusetts Stormwater Handbook; and

    c. Pretreatment is provided in accordance with the current Massachusetts Stormwater Handbook.

13. For land uses with higher potential pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable. If through source control and/or pollution prevention, all land uses with higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt and stormwater runoff, the proponent shall use the specific structural stormwater BMPs determined by the Topsfield Conservation Commission to be suitable for such use as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53, and the regulations promulgated thereunder at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.

14. Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply and stormwater discharges near or to any other critical area require the use of the specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by the Conservation Commission to be suitable for managing discharges to such area as provided in the Massachusetts Stormwater Handbook. A discharge is near a critical area, if there is a strong likelihood of a significant impact occurring to said area, taking into account site-specific factors. Stormwater discharges to Outstanding Resource Waters and Special Resource Waters shall be removed and set back from the receiving water or wetland and receive the highest and best practical method of treatment. A “storm water discharge” as defined in 314 CMR 3.04(2)(a)1.or (b) to an Outstanding Resource Water or Special Resource Water shall comply with 314 CMR 3.00 and 314

CMR 4.00. Stormwater discharges to a Zone I or Zone A are prohibited, unless essential to the operation of the public water supply.

15. A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural stormwater best management practice requirements of Standards 4, 5 and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.

16. A plan to control construction related impacts including erosion, sedimentation and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation and pollution prevention plan) shall be developed and implemented.

17. A long-term operation and maintenance plan shall be developed and implemented to ensure that the stormwater management system functions as designed.

18. All illicit discharges to the stormwater management system are prohibited.

19. For phased projects, the determination of whether the Stormwater Management Standards apply is made on the entire project as a whole including all phases. When proposing a development or redevelopment project subject to the Stormwater Management Standards, proponents shall consider environmentally sensitive site design that incorporates low impact development techniques in addition to stormwater best management practices.

Editor's Note: Section R:10-25 was added by the Topsfield Conservation Commission at a Public Hearing on April 9, 2003. Sections R:10-25.h. and i. were added by the Topsfield Conservation Commission at a Public Hearing on March 8, 2006. Section R:10-25 was modified and Preamble, Definitions, and Regulations 9. through 19. were added by the Topsfield Conservation Commission at a Public Hearing on April 9, 2008.

R:10-26. RULES FOR HIRING INDEPENDENT CONSULTANTS:

As provided by MGL Ch. 44 § 53G, the Topsfield Conservation Commission may impose reasonable fees, paid by the applicant, for the employment of independent consultants, engaged by the Conservation Commission, for specific expert services deemed necessary by the Commission in order to reach final decisions on applications submitted to the Conservation Commission pursuant to the requirements of the Wetlands Protection Act, MGL Ch. 131 § 40, the Topsfield Wetlands General Bylaw, Ch. 62, the Conservation Commission Act (MGL Ch. 40 § 8C), or any other state or municipal statute, bylaw or regulation, as they may be amended or enacted from time to time.

Funds received by the Conservation Commission pursuant to these rules shall be deposited with the Town of Topsfield treasurer, who shall establish a special account for this purpose. Expenditures from this special account may be made at the direction of the Conservation Commission without further appropriation as provided in MGL Ch. 44 § 53G. Expenditures from this account shall be made only in connection with the review of a specific project or projects for which a consultant fee has been collected from the applicant.

Specific consultant services may include, but are not limited to, resource area survey and delineation, analysis of resource area values, hydrogeologic and drainage analysis, impacts on municipal conservation lands, wildlife studies, and environmental or land use law. The consultant shall be chosen by, and report only to, the Commission and/or its Administrator.

The Conservation Commission shall give written notice to the applicant of the selection of an independent consultant. Such notice shall state the identity of the consultant, the amount of the fee to be charged to the applicant, and a request for payment of said fee in its entirety. Such notice shall be deemed to have been given on the date it is mailed or delivered. No such costs or expenses shall be incurred by the applicant if the application or request is withdrawn within five days of the date notice is given.

The fee must be received in its entirety prior to the initiation of consulting services. The Commission may request additional consultant fees if, because of unforeseen circumstances, necessary review requires a larger expenditure than originally anticipated or new information requires additional consultant services. Failure by the applicant to pay the consultant fee specified by the Commission within ten (10) business days of the request for payment shall be cause for the Commission to determine that the application is administratively incomplete (except in the case of an appeal). The Commission shall state such in a letter to the applicant, copied to the DEP. No additional review or action shall be taken on the permit/order request until the applicant has paid the requested fee. Additionally, under the Wetlands General Bylaw, failure by the applicant to pay the consultant fee specified by the Commission within ten (10) business days of the request for payment shall be cause for the Commission to deny the permit application.

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

Editor's Note: Section R10:26 was added by the Topsfield Conservation Commission at a Public Hearing, on July 14, 2004.