

Review of Wetland Resource Area Buffer Zone Distances

February 2013

Prepared By:

Town Of Tewksbury

Conservation Commission

By-law Subcommittee

1.0 Introduction and Background

As part of the Town of Tewksbury's October 2012 Special Town Meeting warrant, an article had been submitted by residents which would have amended the local wetlands protection bylaw (see Appendix A for article). The primary amendment requested by this article was to change buffer zone distances surrounding wetland resource areas. Following discussions between the Conservation Commission and the article proponents, the article was withdrawn with the understanding that the Conservation Commission would further evaluate the requested amendments. A bylaw subcommittee was formed to perform this evaluation, along with evaluation of other potential bylaw changes/improvements.

This report was developed to summarize information collected during the research phase of the buffer zone distance evaluation. The existing wetland bylaw is summarized, along with any available historical background information regarding the basis for the existing buffer zone distances and a master plan evaluation of the bylaw. A summary of various technical research papers is provided, many of which were developed in an attempt to determine appropriate protective buffer zone distances for various land use applications. Review was also performed on distances utilized by Massachusetts municipalities. In most cases, the basis for these distances was unavailable, but they are useful for comparison purposes. Finally, implications of changes to the buffer zone distances are reviewed.

1.1 Buffer Zones - General

The need for buffer zones around waterbodies and wetlands is well-documented and will be summarized later in this document. However, the appropriate width of a protective buffer is not clear. Many factors can be used in determining this distance, including:

- Wetland function and value;
- Intensity of adjacent land use;
- Buffer characteristics (e.g., slope and soil type) as it relates to sediment/pollutant removal (both above and below the ground surface) and microclimate protection; and
- Wildlife habitat protection and connectivity.

Buffer zone management varies by state and municipality. While evaluations of impacts are often performed on a case-by-case basis, due to the amount of effort necessary for determination of an appropriate buffer zone distance, many by-laws and ordinances set minimum buffer widths with various restrictions to make it easier on both developers and reviewers. However, the basis for these set distances is not always based on scientific evidence, but rather "politically" based, where consideration for landowner use, historic decisions, and how neighboring municipalities handle the issue is utilized. In a municipality like Tewksbury, where there are many wetlands/waterbodies and much of the available land is already developed, all of the factors listed above, both scientific and political, must be evaluated to determine the best method for buffer zone management in the municipality.

For the purposes of this document, no-disturb zones are those where little to no activity is allowed, maintaining an undisturbed zone, typically right next to the wetland resource area or water body. A no-build zone is typically an additional distance from a no-disturb zone where building of structures is limited so as to protect the no-disturb zone from encroachment. For example, if a no-disturb zone were set at 25 feet from a wetland resource area and there are no limitations to construction beyond this zone, a building could be placed just beyond the 25-foot boundary. This would likely result in future disturbance around the building, at a minimum, for maintenance, thereby encroaching in the no-disturb zone. In this document, distances are defined as being from and parallel to the wetland boundary.

1.2 Commonwealth of Massachusetts Regulations

As summarized in Boyd, 2001:

“The Massachusetts Wetlands Protection Act (MWPA), (Massachusetts General Laws (M.G.L.) Chapter 131 Section 40) first passed in 1972, is implemented by Chapter 310, Code of Massachusetts Regulations (CMR), Section 10. The purpose of the MWPA is to provide protection to wetland resources with respect to the following eight interests:

- Protection of public and private water supply
- Protection of ground water supply
- Flood control
- Storm Damage Prevention
- Prevention of Pollution
- Protection of Land Containing Shellfish
- Protection of Fisheries
- Protection of Wildlife Habitat”

The Commonwealth of Massachusetts has not defined no-disturb and/or no-build zones. It is left up to local municipalities to enforce how they choose within 100 ft of wetland resource areas (or within 200 ft of rivers/perennial streams). Although this authority is granted to municipalities, decisions are reviewed by the Massachusetts Department of Environmental Protection for consistency and potential mis-interpretation of the MWPA.

“The Rivers Protection Act (RPA) was an amendment to the MWPA and is also found in Massachusetts general laws (MGL) Chapter 131 Section 40. It was passed in 1996 and implemented in 1997 by Chapter 310, Code of Massachusetts Regulations, Section 10. The regulation states that riverfront areas protect the same eight interests as the MWPA, and so must be preserved.”

1.3 Town of Tewksbury – Wetlands Protection Bylaw

[Note that this section summarizes Bylaw information at the time of publication. The Bylaw subcommittee is discussing revisions/clarifications to improve understanding by both residents/developers and Conservation Commissioners.]

In the Town of Tewksbury Wetlands Protection Bylaw (August 2012), a 25-foot no-disturb zone and 50-foot no-build zone has been established, with various waivers/activities allowed for each zone. Waivers are often allowed for existing developments/residences in the no-build zone; however, limitation of activities in the no-disturb zone is adhered to in most cases.

The bylaw is presented as Appendix B, with the distances defined in Section 18.04.30 and exceptions/variances defined in Section 18.04.40 and performance standards listed in Section 18.04.45. General allowances/prohibitions are presented below (both summarized and via specific excerpts). Following the discussion of the existing bylaw, example scenarios for residents are presented to potentially provide a better understanding of some of the typical scenarios reviewed by the Commission. In addition, the history of the existing bylaw buffer zone distances is summarized for improved understanding.

Note that maintaining, repairing or replacing, but not substantially changing or enlarging, an existing and lawfully located building (residential/commercial) does not require an application to the Commission. Additional exemptions are allowed for facilities used in the service of the public (i.e., utilities), agricultural use, and mosquito control.

Maintenance of existing landscaping, including lawn mowing and pruning, is exempt from Commission review regardless of location in the buffer zone or any wetland resource area.

25-foot No-Disturb Zone – Undisturbed, natural vegetation. Except for certain cases, no activity is permitted within this zone, including, but not limited to, grading, landscaping, vegetation clearing, cutting, filling, excavating, road construction, and driveway construction. “This standard has been adopted because the alteration of land immediately adjacent to a wetland is likely to result in the alteration of the wetland itself. Alterations typically result from extension of lawns, depositing/dumping of yard waste, over grading, siltation, deposition of construction debris, unregulated filling, and clearing of vegetation, all of which is prohibited.” Note that historic alteration of this zone (e.g., lawn encroachment) does not reduce this distance as being enforceable under the existing bylaw. However, a presumption of significance (of any part of the buffer zone) may be overcome upon a showing of clear and convincing evidence demonstrating that the buffer zone does not play a role in the protection of the wetland/water body. Discussion of variables contributing to buffer zone protectiveness is presented later in this report.

50-foot No-Build Zone –

- Proposed (new) buildings or structures must stay outside of this zone;
- Mitigation options are provided for unavoidable partial encroachment into this zone.
- Stormwater management structures/components are allowed in this zone;
- These tasks do not need review by the Commission:
 - Unpaved pedestrian walkways for private use;
 - Fencing that does not create a barrier to wildlife movement;
 - Stone walls without mortared foundations;
 - Stacks of cordwood;
 - Vista pruning (see bylaw text for restrictions);
 - Planting of native trees, shrubs, or groundcover, but not turf lawns [turf lawn installation in this zone requires review by the Commission];
 - Conversion of lawns to decks, sheds, patios, and pools that accessory to single family homes which existed prior to May 1, 2002 (runoff controls must be used during construction);
 - Conversion of patios, pools, sheds, or other impervious surfaces to lawn or natural vegetation; and
 - Activities, such as monitoring wells, exploratory borings, soil sampling, and surveying, that are temporary, have negligible impacts, and are necessary for planning and design purposes.

Vernal Pools – Activities proposed within 200 feet of a vernal pool are presumed by the Commission to have a high likelihood of altering the habitat for the vernal pool species unless the proponent proves by a preponderance of credible evidence that either the vernal pool is not used by vernal pool species as habitat, or the proposed activity shall occur in such a manner that any potential adverse environmental impacts on any of the wetland values are avoided.

Emergency Projects are allowed (in all zones) if necessary for the protection of the health or safety of the public, under conditions detailed in the bylaw. Similarly, the Commission may waive requirements for projects necessary for the public good, as detailed in the bylaw.

Waivers of various requirements are allowed under the bylaw for economic hardship, situations where there are no feasible alternatives that provide fewer impacts to the wetland resource area value, and construction of a roadway to access other upland areas (restrictions listed in bylaw).

“Wetland alterations intended to make lands buildable, as by fulfilling septic system setback requirements, flood elevation requirements, or other minimum construction setback requirements, or to achieve minimum lot area requirements, are prohibited.”

1.3.1 Example Scenarios For Residents

The scenarios provided below are some which have come before the Commission in the past and are fairly common to the residents of Tewksbury. Conclusions/recommendations for each scenario are presented in italics and are based on interpretation of the current bylaw. Note that these examples are meant to provide guidance. Anyone with questions should contact the town's Conservation Agent.

- 1) My property abuts a wetland. It is pretty clear where the wetland edge is. My house sits approximately 50 feet from the wetland edge and my lawn extends to 25 feet from the wetland edge.
 - a) I want to put up a shed 30 feet from the edge of the wetland. *[If the shed is no larger than 120 sq. ft., there is no need for review from the Commission. If larger, review would be needed to determine if a waiver would be granted to allow construction in the no-build zone.]*
 - b) I would like to put an addition onto my house. *[The Commission will need to be notified of the project. Extent of review will depend on the project.]*

- 2) My property abuts a wetland. My lawn is currently 15 feet from the edge of the wetland. I would like to put up a 10' x 12' shed (120 sq. ft.) 20 feet from the edge of the wetland. *[While the shed does not exceed sizing limits for review, the work is proposed in the no-disturb zone. Even though the lawn extends into the no-disturb zone, it is still presumed to perform buffering functions for the neighboring wetland unless the applicant can prove otherwise (perhaps showing that runoff is not occurring in this specific area and that wildlife does not use this area). It is unlikely that the shed construction would be allowed within 25 feet from the edge of the wetland.]*

- 3) My property abuts a wetland. I want to get more use out of my land and plan to level off an area within 10 feet of the wetland. It is my property. I want to use it and am unaware of the wetlands protection bylaw. *[Activities within 100 ft of a wetland require Commission review (unless an activity listed under exemptions). If you perform(ed) this activity without coming before the Commission, you may be subject to fines, etc. and would likely have to restore the area to pre-existing conditions. Lack of knowledge of existing laws does not remove liability. It is unlikely that this project would be allowed, as filling/excavating in the no-disturb zone is not allowed in most cases.]*

- 4) My property does not abut a wetland, but there is a wetland across the street from me. I want to level off my front yard and put in a retaining wall. Some of the work will be within 100 feet from the edge of the wetland, but greater than 50 feet. *[This should be brought forward to the Commission for review. It is likely to result in no actions being necessary, but if surface runoff could impact the wetland, you may be requested to install runoff controls (i.e., silt fence and/or straw wattles).*

- 5) My existing driveway is old and beat up...and approximately 10 ft from a stream. I would like to rip it up and put in new pavement. *[This should be brought forward to the Commission for review. As long as the proposed impervious area is the same or less than the existing impervious area, the likelihood is that the project will be approved under a standard Order of Conditions, whereby runoff controls are used during construction. If possible, infiltration best management practices may be requested to limit future runoff into the nearby stream. For example, a trench between the driveway and the stream, if no further vegetation will be destroyed.]*

1.3.2 Historical Basis of Existing Buffer Distances

The buffer zone distances in the current bylaw were last updated in 2001. Prior to that there was a no-disturb zone of 10 feet. It was the narrowest no-disturb zone of any surrounding towns which had set distances, and was also narrower than guidelines followed by those towns without distances set in a bylaw.

Information available from presentations and meeting minutes from 2001 showed that the original amendment included provision for larger buffer strips based on significant slope, subject to the Commission's discretion. The benefits of the amendment, at the time, were to:

- Provide better protection for the wetlands;
- Align Tewksbury's bylaw with neighboring towns;
- Align Tewksbury's bylaw more closely with the no-disturb zone widths recommended by state agencies and environmental organizations; and
- Promote the goals of the Shawsheen River Watershed Wetlands Restoration Plan.

It appears that the slope provisions were removed prior to adoption. Furthermore, there was some scientific justification utilized in increasing the width of the no-disturb zone, with the final distances apparently based primarily on alignment with neighboring towns. Meeting minutes (May 2, 2001) included a discussion which noted that the town previously had a no-disturb zone of 25 feet, and that it was unclear where/when the 10-foot distance was adopted.

2.0 Outside Studies/Science of Buffer Zones

The previous section showed that there was some science behind selection of the buffer zone distances. This section presents a review of studies/technical papers, both by regulatory and non-regulatory authors, either recommended by other Massachusetts conservation agents, or found through various research methods. Summaries are presented beginning with the most current document and focus primarily on content related to buffer zone sizing. In many cases, the newer documents refer to the older ones, as the information is still appropriate/applicable. Note that the science behind buffer zones related to vernal pools may require further investigation.

2.1 Conservation Buffers: Design Guidelines for Buffers, Corridors, and Greenways

Bentrup, G. 2008. Conservation Buffers: Design Guidelines for Buffers, Corridors, and Greenways. General Technical Report SRS-109. Asheville, NC. United States Department of Agriculture. Forest Service Southern Research Station. September 2008.

This document is meant primarily for planners to use in developing areas and planning for buffers by evaluating their functions in a development. The concepts and discussions of buffer functions are appropriate for use in the current evaluation.

For water quality, buffers slow water runoff and enhance infiltration, trap pollutants in surface runoff and subsurface flow, stabilize soil, and reduce bank erosion. For biodiversity, buffers increase habitat area, protect sensitive habitats, restore connectivity, increase access to resources, and shade streams to maintain temperatures.

"...buffer width should be variable by widening and narrowing the buffer as runoff loads and buffer site conditions vary." For runoff areas that are larger and contribute greater loads, buffers will need to be wider. Lower ratios of upslope runoff areas to effective buffer areas can provide substantially greater pollutant removal than higher ratios. Mapping can be used to determine this ratio. Steeper slopes require wider buffers to allow for more time for infiltration. Sandy soils allow for better infiltration than finely-textured soils (e.g., silts or clays), which would therefore require a narrower buffer for infiltration. Best management practices used for runoff controls (e.g., swales) can be utilized to lower buffer zone widths.

Some reasons for buffer zones:

- Urban runoff controls (trap sediments)
- Pathogen removal (e.g., animal wastes)
- Dinitrification (fertilizers)
- Phosphorus removal (fertilizers)
- Pesticide removal
- Shallow groundwater contaminant removal

This document shows that just having a buffer width is not enough. Determining what its functionality is will determine what is appropriate. There is a tool to estimate design width for a broad range of site conditions. It was developed for agricultural runoff, but can be applied generally to other land uses as well. Adjustments are made for slope, soil texture, and surface condition.

"Narrow buffers < 15 feet can be effective for sediment removal in some locations." These locations will have relatively lower slopes, smaller runoff areas, and permeable soils. If the buffer width estimated for

a desired trapping efficiency exceeds what a landowner is willing to set aside for a buffer, additional best management practices (BMPs; e.g., swales) could be used to reduce runoff load.

Managing for biodiversity:

- Consider smart growth principles where possible;
- Minimize disturbance of natural vegetation and introduction/spread of non-native species; and
- Manage disturbances to reduce negative impacts.

It is better to design corridors as broad connectivity zones or corridor networks rather than limiting corridors to strips of a single vegetation type. Buffers may help mitigate temperature changes in streams, as well as allow migration of species depending on changes in climate. Buffer zones are used to protect sensitive areas (e.g., wetlands) from negative external pressures. Corridors are used to connect these buffers.

“Buffer zone widths should be based on the desired ecological functions, landscape context, and external pressures. Upland buffers of 250 to 1,000 feet around wetlands have been recommended for turtles and amphibians. For wildlife reserves or parks, buffer zones may need to be several miles wide.”

Many studies have been performed on corridor width, but none have determined an optimal corridor width. The effectiveness will vary based on many factors, including corridor length, habitat continuity, and habitat quality. In general, the larger the species, the wider the corridor will need to be to facilitate movement. Longer corridors should be wider and a corridor will generally need to be wider in landscapes dominated by human use. The minimum recommended corridor width shown in the document is approximately 100 feet.

For aquatic species, riparian corridors/buffers provide woody debris for aquatic habitat structure, maintain microclimate, provide food, and protect water quality. They may not be able to maintain desirable habitat quality in watersheds that are highly developed. Minimum recommended buffer width for aquatic habitat functions: 100 ft for woody debris and litter input; 75 ft for aquatic species diversity; and 25 ft for protection against water temperature modification. Vegetation matters for temperature buffering (i.e., trees providing shade).

During flood events, buffers can slow runoff and absorb excess water, thereby lessening downstream flooding. Buffer width should correspond to the width of the floodplain.

2.2 The Scientific Basis for Protecting Wetland Buffers

Buchsbaum & Jackson. The Scientific Basis for Protecting Wetland Buffers. Robert Buchsbaum (Massachusetts Audubon Society) and Scott Jackson (University of Massachusetts). Presentation date unknown – appears to be recent based on online evidence (possibly March 2012).

This is a presentation showing a description of buffer zones and what functions they perform. Characteristics of buffer zones which affect functionality include slope, soil type, and groundwater flow characteristics.

There is a lot of variation in the relationship of pollution attenuation to buffer widths. General widths reported to protect water quality ranged from approximately 25 ft to 150 ft, with the mean being approximately 75 ft. Nitrogen removal is better in poorly-drained soils, with the best removal in clay-loam type soils. Slope is an important variable in determining buffer width, as reduction of suspended solids is inversely proportional to slope (i.e., as the slope increases, removal of solids decreases). With respect to pollutant removal, there is a limit after which removal efficiency requires much larger widths. "The most efficient vegetated buffers, based upon width-to-removal ratios, will be about 25 meters [~75 ft] in width, after which large additions of buffer width are required to achieve only small increases in sediment removal efficiency." Similarly for removal of both total suspended solids (TSS) and nitrogen, the most efficient vegetated buffer is about 60 meters [~90 ft]. Nitrate is typically removed via biological processes rather than through physical and chemical processes; therefore, buffer width is not easily correlated to the removal of nitrate. For phosphorus removal, the most efficient vegetated buffer is about 75 meters [~225 ft].

The presentation shows the relationship of housing density within the 100-ft buffer to the mean fecal coliform concentration. It discusses die-off rates and how the buffer zone provides time for the die off to occur before reaching sensitive areas.

General conclusions for buffers with respect to water quality:

- On average, a 100-ft buffer will remove approximately 70% of the pollutants;
- A small buffer (e.g., 25-feet) can still remove over 50% of the pollutants; and
- Scientifically, nothing is better than site-specific information.

The presentation discusses wildlife habitat functions of buffers and refers to the Boyd, 2001 report (also summarized in this report) in discussing distances appropriate for certain species. It also discusses how buffers help protect against invasive plant species. The minimum recommended buffer widths reported for wildlife habitat protection appears to be approximately 50 ft, with a dense-growth, mixed-species buffer.

General conclusions for buffers with respect to wildlife:

- Loss of surrounding upland habitat will result in significant impacts to wetland wildlife;
- Science cannot answer the question: what size buffer?;
- Setbacks and buffer zones are political decisions that can be informed by science; and
- Regulatory buffers are insufficient for protecting many wetland wildlife species.

With respect to buffer width decision-making, if it is not a special case, wetland functions and the potential for impacts should be evaluated and scored. Using these scores, a buffer distance should be set (50 to 300 ft).

Table 7. A summary of pollutant removal effectiveness and wildlife habitat value of vegetated buffers according to buffer width. The stepwise increments are adapted from Table 5 and Table 6, and reflect changes in pollutant removal effectiveness and wildlife habitat value according to width of the vegetated buffer. [1 meter = 3.28 feet]

Buffer Width (m)	Pollutant Removal Effectiveness	Wildlife Habitat Value
5	Approximately 50% or greater sediment and pollutant removal	Poor habitat value; useful for temporary activities of wildlife
10	Approximately 60% or greater sediment and pollutant removal	Minimally protects stream habitat; poor habitat value; useful for temporary activities of wildlife
15	Greater than 60% sediment and pollutant removal	Minimal general wildlife and avian habitat value
20	Approximately 70% or greater sediment and pollutant removal	Minimal wildlife habitat value; some value as avian habitat
30	Approximately 70% or greater sediment and pollutant removal	May have use as a wildlife travel corridor as well as general avian habitat
50	Approximately 75% or greater sediment and pollutant removal	Minimal general wildlife habitat value
75	Approximately 80% sediment and pollutant removal	Fair-to-good general wildlife and avian habitat value
100	Approximately 80% sediment and pollutant removal	Good general wildlife habitat value; may protect significant wildlife habitat
200	Approximately 90% sediment and pollutant removal	Excellent general wildlife value; likely to support a diverse community
600	Approximately 99% sediment and pollutant removal	Excellent general wildlife value; supports a diverse community; protection of significant species

General conclusions for buffers with respect to both water quality and wildlife habitat:

- Current regulatory buffers of 100 to 200 ft are more effective in protecting a wetland from pollutants than from loss of wildlife habitat function; and
- Other approaches, such as creative land use planning, is needed to maintain wildlife habitat functions.

2.3 Planner's Guide to Wetland Buffers for Local Governments

ELI, 2008. *Planner's Guide to Wetland Buffers for Local Governments*. Environmental Law Institute. March 2008.

Wetland functions cannot be sustained without care for the uplands adjacent to wetlands (buffers). Buffers maintain wetland functions by:

- Removing sediments and associated pollutants from surface water runoff;
- Removing, detaining, or detoxifying nutrients and contaminants from upland sources;
- Influencing the temperature and microclimate of a water body; and

- Providing organic matter to the wetland.

Buffers also maintain habitat for aquatic, semi-aquatic, and terrestrial wildlife and serve as corridors facilitating movement of wildlife.

Local governments are better suited than state and federal environmental authorities to control activities on the lands surrounding wetland resource areas, because they are not only concerned with wetland functions, but also with surrounding land uses. Local governments have an interest in ensuring the compatibility of the land use in order to maintain control of the patterns of development, community character, tax base, demand for services, and response to hazards. The functions that wetlands provide may diminish if wetlands are surrounded by parking lots, buildings, and pollution-generating or other incompatible land uses that reduce their hydrologic functions, alter vegetation, and degrade habitat values.

The document summarizes the elements that should be in an ordinance or by-law. It also provides full purpose statements which include mention of all buffer zone functions.

Nashua, New Hampshire defines their buffer zones based on wetland type, prescribing a 75-foot no-disturb zone for "primary wetlands" as defined under state law, 40 feet for "critical wetlands," and 20 feet for other wetlands over one acre. Other local governments perform wetland mapping and define buffer zones based specifically on the various wetlands and functions.

Because of the variation in ordinances with respect to no-disturb and no-build zones, comparing the number of feet prescribed in various buffer ordinances is not informative by itself. "What matters is how the buffer ordinance defines what activities are allowed and not allowed in the defined areas."

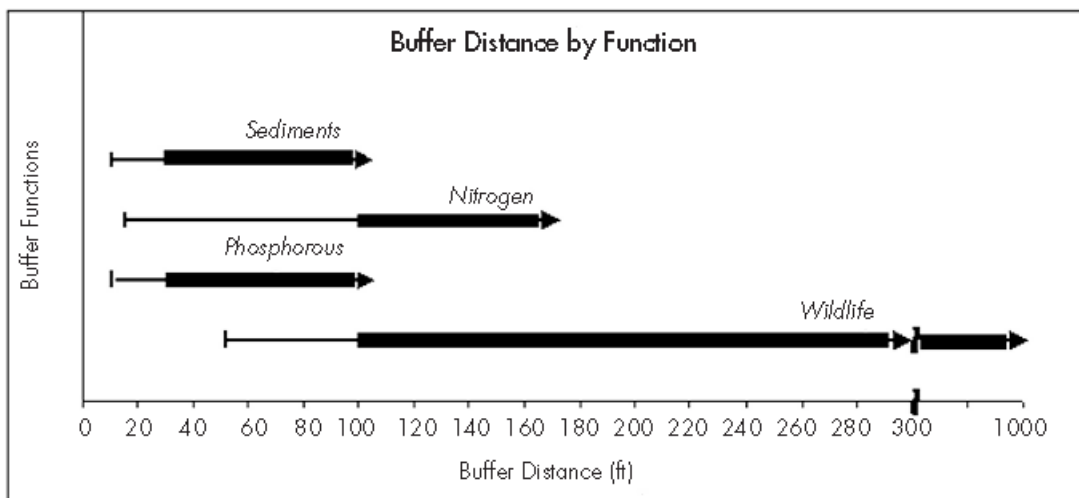
"In general, wide and densely vegetated buffers are better than narrow and sparsely vegetated buffers. However, the buffer size necessary to provide a particular level of function depends on the functions of the wetland, the wetland's relative sensitivity (as influenced by water retention time and other factors), the characteristics of the buffer, the intensity of adjacent land use, and watershed characteristics. A multi-function buffer should be sized to meet all of the functions identified as being locally important."

The buffers protect the water quality of wetlands by preventing the buffer area itself from being a source of pollution. They also process pollutants that flow from upland areas. Benefits vary based on: size of buffer, flow pattern, vegetation type, percent slope, soil type, surrounding land use, pollutant type and dose, and precipitation patterns. Buffer effectiveness can be reduced by activities that destroy vegetation or compact/erode soils. Much of sediment and nutrient removal may occur within the first 15-30 ft of buffer, but buffers of 30-100 ft or more will remove pollutants more consistently. Areas of steep slope and high intensity land use should have greater buffer zone distances.

Larger buffers are more effective over the long run, because it is harder to maintain the integrity of small buffers and they can become saturated with sediments and nutrients. In a Washington state study, buffers of less than 50 ft were more susceptible to degradation by human disturbance. No buffers of 25 ft or less were functioning to reduce disturbance to the adjacent wetland. Tougher monitoring and enforcement of buffer requirements would help, along with education of landowners.

Buffers maintain or serve as habitat for aquatic and wetland-dependent species that rely on upland habitat for critical stages of their life. Buffers also screen adjacent human development and serve as habitat corridors. The appropriate buffer size depends on the resident species and the intensity of the surrounding land use.

Buffer zone sizing should consider all of the buffer functions, including: removing pollutants, limiting disturbance by humans, limiting the spread of non-native species into wetlands, helping maintain microclimatic conditions, and providing habitat for native species. Effective buffer sizes for wildlife protection may range from 33 to more than 5000 ft, depending on the species.



*Effective buffer distance for water quality and wildlife protection functions. The thin arrow represents the range of potentially effective buffer distances for each function as suggested in the science literature. The thick bar represents the buffer distances that may **most** effectively accomplish each function (30 -> 100 feet for sediment and phosphorous removal; 100 -> 160 feet for nitrogen removal; and 100 -> 300 feet for wildlife protection. Depending on the species and the habitat characteristics, effective buffer distances for wildlife protection may be either small or large.*

A good summary of scientific studies is presented. However, it also notes that most studies tended to evaluate effects of specific buffer sizes rather than to derive buffer distances from conditions. With respect to amphibians, it appears that greater than 521 ft may be core terrestrial habitat. To screen light, noise, domestic pets, and human presence from wetland wildlife, buffers of at least 50 ft are likely necessary to maintain effectiveness over time. One source suggests that a buffer of 33-66 ft is necessary for sustaining native vegetation in some wetlands.

Some ordinances prescribe fixed distances, while others vary the buffer to account for slope and or intensity of land use. Others require establishing/varying the buffer on a case-by-case basis, but usually prescribe the factors that must be taken into account. These would rely on performance standards to drive the buffer distance decision.

The lowest buffer zone distance found was 15 ft, with the highest approximately 350 ft. The largest number clustered around no-disturb zones of 50 ft or 100 ft, with variations (usually upward) based on particular wetland characteristics, species of concern, and to account for areas with steeper slopes. The largest distances (350 ft or more) tended to be for tidal wetlands and vernal pool wetlands.

Five approaches generally used by local governments in determining buffer distances include:

- Fixed no-disturb zone;
- No-disturb zone plus additional setback (buildings should not be constructed on the buffer's edge if a functional buffer is to be maintained). This additional distance also varies by community;
- Regulated buffer area with minimum no-disturb zone (Lewiston, Maine regulates all areas within 250 ft of the upland edge of all 10-acre or larger wetlands, and requires that all structures must be set back at least 75 feet from the wetland edge with no variances, and that a "natural vegetative state" must be maintained for the first 50 feet; Massachusetts is discussed with the 100-ft regulated buffer area and local ordinances defining the no-disturb zone, with Sturbridge defining no-disturb zones ranging from 25 ft to 200 ft, depending upon the wetland resource);
- Matrix based on listed factors (wetland type, slopes, habitats, land use intensities); Sammamish, Washington prescribes a set of buffers ranging from 50 to 215, based on wetland type and habitat score; Island County, Washington uses a more complex matrix similarly, with buffer distances ranging from 15 to 300 feet in width, primarily based on intensity of surrounding land uses, habitat structure within and around a wetland (as scored with a simple checklist that landowners may use), and wetland sensitivity; some governments prepare tables to be used; Bensalem, Pennsylvania prescribes buffer distances via overlay districts, with 20 ft in agricultural zones, to 100 ft in general industrial zones, with 80% natural vegetative cover maintained in the buffer); and
- Case-by-case buffer determinations (applicants would be required to provide sufficient information to allow the local government to specify the buffer distance based on performance standards; some include a minimum distance; Commerce City, Colorado – no less than 25 feet; Woodbury, Minnesota requires a minimum native vegetated buffer of 15 ft, but further provides for up to a 75-ft no-disturb zone depending on the natural vegetation; Alachua County, Florida provides for a case-by-case buffer, but also provides for a numerical default value (minimum 35 feet, depending on wetland size and function) when insufficient information is available to support a determination.

Some ordinances provide grandfathering as well as buffer averaging based on factors such as slopes. Others prohibit the use of wetland buffers for stormwater retention ponds, requiring that such structures be located outside the buffer, or allows the structures to encroach if an equal area of buffer is replaced elsewhere on the property, but requires a determination of no significant impact as a result of the changes. Cape Cod's handling of vernal pools is summarized, with a buffer of 350 feet (but with provision of "no adverse effect" on the vernal pool or the buffer zone. If the ordinance requires site-specific findings, it is desirable to have a technically trained professional staff or consultants available who can carry out the evaluation. Some ordinances also have hardship variances, but these are typically disfavored. Some set standards for the establishment and maintenance of buffer conditions, where, if a natural buffer does not exist, one shall be created.

Enforcement should be performed. Sufficient personnel should monitor approved buffers to identify possible violations. "Ordinances should address affirmative obligations to maintain the buffer in a functional condition and prevent encroachments by homeowners or third parties." Wetland setbacks can be permanently recorded on the property records for the community.

Examples of matrix tables are provided in an attachment to the document reviewed.

2.4 Buffer Zones and Beyond: Wildlife Use of Wetland Buffer Zones and Their Protection Under the Massachusetts Wetland Protection Act

Boyd, 2001. Buffer Zones and Beyond: Wildlife Use of Wetland Buffer Zones and Their Protection Under the Massachusetts Wetland Protection Act. Boyd, Lynn. Wetland Conservation Professional Program. Department of Natural Resources Conservation. University of Massachusetts. July, 2001.

This report documents wildlife use of upland areas adjacent to freshwater wetlands. Of the 65 species of wetland dependent wildlife in Massachusetts, 77% use areas from the wetland edge to 100 ft beyond it. The need for maintaining a buffer zone is well-documented, but the width is contested. The size of the buffer should be determined based upon the resource value, the intensity of adjacent land use, buffer characteristics (e.g., slope and soil type), and special buffer functions. Many species that require habitat in upland areas adjacent to wetlands may not be adequately protected under existing regulations. This report identifies species and their habitat requirements, focused on Massachusetts wildlife (i.e., reptiles, amphibians, mammals, and birds).

"The Massachusetts Wetlands Protection Act (MWPA), (Massachusetts General Laws (M.G.L.) Chapter 131 Section 40) first passed in 1972, is implemented by Chapter 310, Code of Massachusetts Regulations (CMR), Section 10. The purpose of the MWPA is to provide protection to wetland resources with respect to the following eight interests:

- Protection of public and private water supply
- Protection of ground water supply

- Flood control
- Storm Damage Prevention
- Prevention of Pollution
- Protection of Land Containing Shellfish
- Protection of Fisheries
- Protection of Wildlife Habitat

Wildlife habitat is defined in M.G.L. c. 131, section 40 to mean: "those areas subject to M.G.L. c. 131 section 40 which due to their plant community composition and structure, hydrologic regime or other characteristics, provide important food, shelter, migratory or overwintering areas for wildlife."

"The MWPA does not provide direct protection to the upland habitat that many wetland dependent species require for completion of their life cycle. Instead it provides indirect protection over some areas of the buffer zone by regulating activities that will alter the physical, biological or chemical characteristics of the wetland through impact to habitat features or overland flow into the wetland."

"The Rivers Protection Act (RPA) was an amendment to the MWPA and is also found in Massachusetts general laws (MGL) Chapter 131 Section 40. It was passed in 1996 and implemented in 1997 by Chapter 310, Code of Massachusetts Regulations, Section 10. The regulation states that riverfront areas protect the same eight interests as the MWPA, and so must be preserved."

When categorizing species into groups by distances traveled, the report presents both average and maximum observed. For most species, the distances traveled beyond the wetland edge were well beyond the distances used for categorizing species (100 ft., 200 ft., and beyond 200 ft.). Some studies showed a distance of general use and a maximum distance rarely reached. This report categorized using the general use distance.

Upland use by the species were as follows: 55% (birds); 90% (reptiles); 95% (amphibians); and 100% (mammals). Note that this study shows the necessity of maintaining upland buffer zones, but does not necessarily assist in determining appropriate distances below 100 ft unless a habitat/species assessment is performed on local wetlands. An appropriate buffer width for species conservation depends upon the wetland and the species of concern. "An all-encompassing width of protected adjacent land is difficult to discern." Connectivity (corridors) is important, as simply protecting individual sites may not allow for survival of species which depend on dispersal of colony populations. The report focuses on a buffer zone of at least 100 ft being important to provide full protection of wildlife. Blackstone requires a 100 ft setback from a wetland edge for any building.

Through the MWPA, generally, the buffer zone is protected locally from surface runoff. This is unlikely to adequately protect wetland biodiversity from human activities. The RPA incorporates the additional protection of the ecosystem, but this may not always be incorporated locally.

The report provides descriptions of wildlife uses in the upland buffer zone, including food, protection, and reproduction/nesting habitat. Most amphibians are terrestrial except for using the wetland for breeding and larval development.

2.5 Wetland Buffers: Use and Effectiveness

Castelle, A.J., C. Conolly, M. Emers, E.D. Metz, S. Meyer, M. Witter, S. Mauermann, T. Erickson, S.S. Cooke. 1992. Wetland Buffers: Use and Effectiveness. Adolfson Associates, Inc., Shorelands and Coastal Zone Management Program, Washington Department of Ecology, Olympia, Pub. No. 92-10.

“Buffer characteristics influence their ability to reduce adverse effects of development, most importantly in relationship to slope and vegetative cover. Buffers with dense vegetative cover on slopes less than 15% are most effective for water quality functions. Dense shrub or forested vegetation with steep slopes provide the greatest protection from direct human disturbance. Appropriate vegetation for wildlife habitat depends on wildlife species present in the wetland and buffer. Effectiveness is also influenced by ownership of the buffer.”

“Land uses with significant construction and post-construction impacts need larger buffers. Construction impacts include erosion and sedimentation, debris disposal, vegetation removal, and noise. Post-construction impacts are variable depending on the land use, but residential land use, in particular, can have significant impacts. Residential land use is associated with yard maintenance debris, domestic animal predation, removal of vegetation, and trampling. Wetland areas and their buffers should not be included in residential lots.”

Buffer widths effective for water quality impacts to wetlands are generally 100 ft or greater. Buffers from 50 to 150 ft are necessary to protect a wetland from direct human disturbance, but the appropriate width depends on the type of vegetation, slope, and adjacent land use. Some wetlands are more sensitive than others.

“Buffer function was found to be directly related to the width of the buffer. Ninety-five percent of buffers smaller than 50 feet suffered a direct human impact within the buffer, while only 35% of buffers wider than 50 feet suffered direct human impact. Human impacts to the buffer zone resulted in increased impact on the wetland by noise, physical disturbance of foraging and nesting areas, and dumping refuse and yard waste. Overall, large buffers reduced the degree of changes in water quality, sediment load, and the quantity of water entering the adjacent wetland. As a rule, buffers were subjected to a reduction in size over time. Of 21 sites examined, 18 were found to have reduced buffer zones within one to eight years following establishment.”

Buffers have little to no effect on sediment removal if runoff occurs in channelized flow (rather than sheet flow). 50-ft buffers were sufficient for controlling most sedimentation on less than 50% slopes. One study in North Carolina found that a 75-ft buffer zone was inadequate for filtering polluted runoff from typical residential development (a hydrologic model was used along with pollutant removal efficiencies for nitrogen, phosphorus, and biochemical oxygen demand).

50-ft buffers provided 85% of the maximum shade for small streams. Buffer widths along slopes could decrease with increasing tree height.

With respect to human impact deterrence, buffer zones limit easy access to the wetland and block the transmittal of human and mechanical noise to the wetland. Investigations in New Jersey showed that human disturbance was higher in wetlands adjacent to dense residential or commercial/industrial uses. As a result of the investigations, they recommended buffer distances for various uses, with the minimum distance being 50-ft for low intensity land uses (agriculture and low density residential). They recommended 100-ft buffers for high intensity land uses (high density residential and industrial/commercial). The greatest protection was provided by steeply sloping buffers with dense shrub understories. Another study showed that buffers functioned most effectively when adjacent development was of low intensity, buffer zones were greater than 50-ft wide and planted with shrub and/or forested plant communities, and the land owners understood the rationale for establishing buffers (or were on land outside of residential lots). Buffer zones within residential lots resulted in the loss of the natural vegetation to lawn over time. Most of the buffers that were less than 50 ft wide at the time of establishment were found to have significant decrease in size within a few years. Less than half of the buffers which were originally at least 50 ft wide showed demonstrable degradation.

New Jersey established buffers using modeling methods (e.g., runoff calculations) and made recommendations ranging from 25 to 645 ft. 25 ft was the minimum recommended distance for residential development if the buffer is forested, with a minimum 50-ft buffer for shrubby and herbaceous buffers. No buffer was recommended if site drainage patterns (during and after construction) were diverted away from the wetland (although wetland hydrology may be impacted); however, this was only for protection of wetland water quality, but other functions should be evaluated for determining an appropriate buffer width.

In Wekiva Basin, Florida, erodibility of soils and depth to groundwater in the upland area is also used for a case-by-case determination. The minimum recommended buffer zone width was 43 feet for a slope of 3% or less and soils with low erodibility. Larger buffers were required if the groundwater table is expected to be lowered as a result of development activity, with buffer widths of 78 to 392 feet recommended for drawdowns of between one and five feet. For noise reduction, a minimum of 42 feet of forested buffer was found to be adequate, but that width should increase to 60 feet if deforested.

Buffers of less than 50 ft in width are generally ineffective in protecting wetlands. “Specific buffer requirements vary widely at the state and local level. This has resulted in differing buffer requirements and levels of wetland protection that are not necessarily effective. For example, the buffer requirements of many agencies are less than those that are reported in the literature to be effective.”

3.0 Massachusetts Municipalities

Beyond the science presented in the previous section, it is informative to be aware of how other municipalities handle the protection of wetlands. A 2004 study was performed by the Pioneer Institute for Public Policy Research and summarized no-disturb and no-build zones in Massachusetts municipalities (presented as Appendix C). Table 1 presents a summary of the results. Of the 134 municipalities summarized, only 25 did not have formal bylaw buffer distances. Most of the no-disturb distances ranged from 25 to 50 feet, with some lower (12-15 ft) and some higher (100 ft). For those municipalities which incorporated no-disturb minimum distances for vernal pools, the most common distance was 100 ft.

While these distances are useful for reference purposes, the study did not include the basis for the distances selected in each municipality. It appears that, in most cases, the decision process for the current buffer zone distances is not well-documented, or easy to pull together. However, if changes to Tewksbury’s existing bylaw buffer zone distances are desired, review of the language in the bylaws summarized may be appropriate in order to prepare an improved bylaw with a basis for the decision. As an example, language in the Town of Barnstable Conservation Commission REGULATION GOVERNING ACTIVITY IN THE 100 FT. BUFFER ZONE UNDER NOTICE OF INTENT APPLICATIONS refers to one of the references provided in this report (Buffer Zones: The Environment’s Last Defense. Mass. Audubon Society. 1989 - Brady and Buchsbaum) and states:

“The Conservation Commission finds that the uniform provision of an undisturbed buffer zone width of 50’ will serve to insulate wetland resource areas from adverse impacts stemming from development elsewhere in the buffer zone. In cases where the slope of an undisturbed buffer exceeds 18%, or in any instance where the scope or nature of the project is likely to require a greater spatial offset to wetland resource areas, the Commission reserves the right to increase buffer zone width to a more suitable dimension.”

4.0 Additional Information

This section includes additional information useful in the evaluation of wetland buffer zone distances in Tewksbury. A summary of wetland discussions in the adopted Master Plan is first presented, followed by a summary of public input received during Bylaw subcommittee meetings.

4.1 Master Plan Summary

Wetlands protection was reviewed as part of the *Town of Tewksbury Master Plan* (September 2003). The Master Plan committee included a member of the Conservation Commission and the Master Plan was adopted at Town Meeting in 2004.

On page 13, the plan states that “Tewksbury needs stronger tools to protect wetlands and water resources.”

“Development near wetlands and floodplains has led to significant flooding, septic system failures and nutrient loading in portions of the town. Two 75-year rainstorm events in 1999 and 2000 and a 25-inch snowstorm in 2001 all caused considerable flooding in Tewksbury. The damage caused by these events underscores the need for enhanced water management and wetland protection.”

“The Conservation Commission has latitude to allow building in the no-build zone if the applicant proves it cannot be avoided. For lots zoned General Residential (RG), the Commission may reduce or waive the requirements of the no-disturbance setback. Since 69% of the town’s land area is zoned RG, there is the potential that the Commission can waive or reduce the requirements of the no disturbance zone for a significant amount of wetland resources. The no-disturbance and no-build zones are not required for the maintenance, repair, or replacement of existing lawful development. More than 60% of the town is already developed and the no-disturbance and no-build zones are not required for maintenance, repair or replacement of existing buildings.

Comprehensive wetlands protection requires both zoning and non-zoning bylaws, high-quality resource area maps and consistent public education. Many communities in Massachusetts adopt more than one regulatory tool to protect their wetlands and watershed areas. In addition, communities that adopt wetlands protection overlay districts typically assure that the underlying zoning in or adjacent to wetland resource areas provides for low impact land uses and adequate environmental performance standards. Tewksbury has opportunities to preserve its beauty and natural resources, to protect its residents from flooding and to increase its safeguards against groundwater contamination.”

On page 15, the plan states:

“Wetlands perform several important functions that contribute to a community’s ecological health. G.L. 131 Section 40, the Wetlands Protection Act, provides significant protection for wetlands in Massachusetts, but many cities and towns supplement it with local wetland regulations in order to exercise greater local control over the review of projects proposed in or

near wetland resource areas. Although Tewksbury has a local wetlands bylaw, some of its provisions are weak or ambiguous and there needs to be consistent enforcement.”

“Tewksbury needs to take a stronger, multi-faceted approach to protecting wetland resources and wildlife habitat. The Master Plan recommends three regulatory measures that seem particularly important:

- Adopt a Wetlands and Riparian Corridor Overlay Zoning District, the proposed boundaries of which are illustrated on Map 5.
- In the Wetlands and Riparian Corridor District, the Conservation Commission should use its power under the Wetland Bylaw to require conservation restrictions when issuing an Order of Conditions for work in or near a wetland resource area.
- Remove the Great Swamp from the Heavy Industrial District and reclassify it as land in the proposed Open Space and Public Use District. For additional protection, industrial land abutting the Great Swamp should be subject to more stringent open space and landscape buffer requirements than would normally be applied to industrial development elsewhere in town.”

On page 16, the plan states:

“Natural buffers around surface water bodies are effective barriers against pollutants that might otherwise enter the water from surface runoff or groundwater discharge. Vegetated buffers absorb nitrogen and phosphorous pollution, neutralize organic and hydrocarbon chemicals, and detain sediment and the heavy metals that often adhere to it. The Massachusetts Rivers Protection Act is a powerful environmental law that restricts development within 200 feet of any perennial river or stream. If properly enforced by the Conservation Commission, the Rivers Protection Act will ensure adequate buffering around Tewksbury’s perennial streams.

For ponds and intermittent streams that are not protected by the Rivers Protection Act, Tewksbury needs to focus on establishing and enhancing natural land buffers. This is particularly important for seasonal drainage channels that fill with water during major storms when sediment and pollutant loads are large. The protection of land around intermittent streams should be explicitly identified as a performance standard for residential and non-residential development.”

4.2 Public Input

During Bylaw Subcommittee meetings leading up to publication of this report, input was received by multiple parties, including residents and developers. In general, there was discussion that there should be more exceptions allowed, especially for residential homeowners. In addition, requests were made for more flexibility in the no-build zone (main issue), but also for potential to show waiver of the no-

disturb zone. It was determined that a lot of flexibility is already incorporated in the bylaw, but the language/interpretation is not always consistent.

5.0 Implications of Bylaw Changes

As part of the ongoing evaluation, it is prudent to consider the implications of any changes to the bylaw. Table 2 below summarizes implications of distance changes (or lack thereof) on protection of wetlands/water bodies, as well as on historic decisions and future development (both residential and commercial). Discussion of “grandfathering” any development which occurred prior to distance changes is also provided.

Table 2. Implications of Bylaw Buffer Distance Decisions

	Negative(s)	Positive(s)
Leave distances the same	<ul style="list-style-type: none"> • Not protective of most wetland/buffer functions • Properties developed/purchased prior to 2001 (when no-disturb was shorter) may feel as though there was a “land-taking” 	<ul style="list-style-type: none"> • May remove most sediments and some pollutants • No complexities with respect to changes/grandfathering
Shorten distances	<ul style="list-style-type: none"> • Not protective of most wetland/buffer functions 	<ul style="list-style-type: none"> • For property owner, more land can be used (both new and existing developments)
Increase distances	<ul style="list-style-type: none"> • For property owner, less land available for development • Potential complexities if grandfathering included 	<ul style="list-style-type: none"> • More protective of wetland/buffer functions
Generate buffer zone distances on case-by-case basis	<ul style="list-style-type: none"> • More information required to be provided by applicant • Review by Commission not simple; more education of commissioners needed • Property owner would not know how much land is available until the Commission makes final ruling 	<ul style="list-style-type: none"> • Most protective of wetland/buffer functions • Fewer issues with future grandfathering, as buffer distances not specific in bylaw

With respect to “grandfathering,” consideration must be given to landowners who purchased property or developed property while different buffer zone distances were in place. Property purchased near wetlands while a no-disturb zone was in place may have had enough room for development. However, an increase in that distance may eliminate development options. The existing bylaw accounts for this situation through waiver language which accounts for “an investment based expectation.” There is also language which accounts for a house having been built prior to May 1, 2002, which is when the previous buffer zone distance changes occurred.

If buffer zone distances are to be changed, options include:

- 1) No grandfathering (this is how many laws are implemented);
- 2) Allow for grandfathering based on date of property purchase and include specifics in bylaw using list of dates (in existing bylaw; arguments may be brought forward by current property owner that original developer purchased prior to earliest date and could use “investment based expectation” argument); or
- 3) Remove bylaw exception specifics based on date and only allow waivers/arguments on “investment based expectation” (provide bylaw date changes in waiver language for use by current Commission members in making decisions).

The first option (no grandfathering) is easiest for Commission members, but would likely not be amenable to property owners. The two remaining options are very similar and don’t significantly change the existing bylaw. If any buffer zone distance changes are to be made, the method for handling the change must also be selected.

6.0 Summary/Conclusions and Recommendations

Review of bylaw buffer zone distances was initiated through the submission of an article to Town Meeting, as some residents felt that the existing wetland buffer zone distances in the current wetlands protection bylaw were too restrictive. This report was developed to summarize information collected during the research phase of the buffer zone distance evaluation. The following key information was determined during this evaluation:

- Buffer zones are important for protection of wetlands/water bodies, as well as the wildlife in and around the wetlands;
- Buffer zone management varies by state and municipality and buffer widths are typically not based only on science, but rather a combination of multiple factors, including political factors (i.e., community land planning);

- Massachusetts does not define no-disturb or no-build zones, but rather leaves those restrictions to local municipalities;
- The existing bylaw establishes a 25-ft no-disturb zone and a 50-ft no-build zone; details of allowable activities and waivers are provided in the bylaw; the historic basis for the current distances is presented and appears to be a combination of science and alignment with neighboring towns;
- Example scenarios are presented in the document to assist residents in understanding common applications of the existing bylaw in Tewksbury;
- With respect to technical papers reviewed, the following information was presented:
 - Buffer zone widths defined in bylaws/ordinances are typically too narrow to allow the buffer to perform all of its functions, including sediment/pollutant removal, ambient condition (sound, temperature) buffering, and wildlife habitat protection (including migration corridors);
 - Buffer widths should account for soil type, slope, land use, and wetland functionality; buffer zones are political decisions that can be informed by science;
 - A buffer width of 50 ft appears to be the optimal minimum to account for both sediment/pollutant removal as well as protection of wildlife habitat value; shorter distances are often encroached upon further as time progresses; tougher monitoring and enforcement of buffer requirements would help, along with education of homeowners;
 - While some shorter distances may be effective, the most effective minimum distance for sediment and phosphorus removal is 30 ft, and 100 ft for nitrogen removal and protection of wildlife habitat;
 - Fixed buffer-zone distances are often established by local municipalities, with others using a decision-making matrix, and others evaluating each project in detail on a case-by-case basis;
- A review of distances set in other Massachusetts Municipalities showed most no-disturb distances ranged from 25 to 50 ft;
- The Master Plan (adopted in 2004) incorporates language which recommends increased protection of Tewksbury's wetlands and focus on enhancing natural land buffers;
- If changes to buffer zone distances are considered, implications of these changes must be considered with respect to both wetlands protection and property ownership; and

- Based on input from non-commission members, it may be more appropriate to further evaluate the waiver/exceptions process rather than change the guidance buffer zone distances in the existing bylaw.

This information should be used as a basis for consideration of bylaw changes with respect to buffer zone distances.

7.0 References

Bentrup, G. 2008. Conservation Buffers: Design Guidelines for Buffers, Corridors, and Greenways. General Technical Report SRS-109. Asheville, NC. United States Department of Agriculture. Forest Service Southern Research Station. September 2008.

Boyd, 2001. Buffer Zones and Beyond: Wildlife Use of Wetland Buffer Zones and Their Protection Under the Massachusetts Wetland Protection Act. Boyd, Lynn. Wetland Conservation Professional Program. Department of Natural Resources Conservation. University of Massachusetts. July, 2001.

Buchsbaum & Jackson. The Scientific Basis for Protecting Wetland Buffers. Robert Buchsbaum (Massachusetts Audubon Society) and Scott Jackson (University of Massachusetts). Presentation date unknown – appears to be recent based on online evidence (possibly March 2012).

Castelle, A.J., C. Conolly, M. Emers, E.D. Metz, S. Meyer, M. Witter, S. Mauermann, T. Erickson, S.S. Cooke. 1992. Wetland Buffers: Use and Effectiveness. Adolfson Associates, Inc., Shorelands and Coastal Zone Management Program, Washington Department of Ecology, Olympia, Pub. No. 92-10.

ELI, 2008. *Planner's Guide to Wetland Buffers for Local Governments*. Environmental Law Institute. March 2008.

TABLES

Table 1. Summary of Buffer Zone Distances for Massachusetts Municipalities - 2004 Data

Municipality	Buffer Requirement (Y/N)	No Disturb (ft)	No Build (ft)	Notes
Abington	Y		10	Nothing within 10' of wetlands
Acton	Y	50	75	Other restrictions in bylaw
Amesbury	N			
Andover	Y	25	50	All wetland resources
		50	75	In Haggett Watershed
Arlington	Y	25		Vegetated wetland; refers to most current map by MA Natural Heritage and Endangered Species Program
		50		Land subject to flooding, land under water bodies
Ashland	Y	25		
Attleboro	Y	25		Project and site-specific basis evaluation may be performed
Auburn	N			
Avon	N			
Bedford	Y	25		
Beverly	Y	25		
		100		Vernal pools
Billerica	Y	25	50	Can establish larger no-disturb zones on a case-by-case basis; especially if slopes are greater than 2:1
Blackstone	Y		100	Also uses size of subdivision to provide a construction setback
Bolton	Y	25		
Boxborough	Y	50		Bylaw specifies activities allowed, as well as some additional distances
Boxford	Y	25	75	Can establish larger no-disturb zones on a case-by-case basis
		100		Vernal pools
Braintree	Y	25		Can establish larger no-disturb zones on a case-by-case basis; also hardship allowances
Bridgewater	Y*	25		*Established after completion of source document
Burlington	N			Informal 20-ft no disturb
Canton	Y	30		Has language for hardship/land taking without compensation
Carlisle	N			Informal 25-ft no build
Carver	Y		65	Nothing in bylaw, but survey response alluded to 65 ft no build
Chelmsford	Y	25	25/50	Various requirements in bylaw
Cohasset	Y	50		
Danvers	Y	25	35	No building construction of any kind in the no-build zone

Table 1. Summary of Buffer Zone Distances for Massachusetts Municipalities - 2004 Data

Municipality	Buffer Requirement (Y/N)	No Disturb (ft)	No Build (ft)	Notes
Dedham	Y	30		Single-family dwelling and accessories
		40		Commercial/retail/industrial/Multi-unit residential/new subdivisions
		50		Pavement/parking lots
				Also has no stormwater management grading or basins within 20 ft of resource area, except for discharge structure/channel
Dighton	Y	25	50	
Douglas	Y		50	
			100	River or stream
Dover	Y	25-30	30-50	Based on groundwater protection district and slope
Dracut	Y		50	Building may occur within 50' at the discretion of the board, but that rarely happens for vernal pools; hardship case variances allowed
Dunstable	Y		60	
Duxbury	Y	25	35-50	No build distances based on foundation type
Easton	Y	50	50	No disturb based on "estimated habitat area" as certified by MA Natural Heritage and Endangered Species Program
Foxborough	Y	25		
Framingham	Y*	30		*Established after completion of source document
		125		Vernal pool; Appendix discussing the establishment of this distance
Franklin	Y	25		
Freetown	N			Informal 20-ft no disturb
Georgetown	Y	50	75	
Gloucester	N			
Grafton	N			
Groton	Y	50		
Groveland	Y	25		
Halifax	Y	50		
Hamilton	Y	25	50	Hamilton/Wenham
Hanover	Y	25	35	Residential
		35	50	Commercial
		50	75	Vernal Pools
Hanson	Y	50		Single-family developments
		95		Commercial/industrial structures
Harvard	N			
Haverhill	Y	25	50	
Hingham	Y	20	25-50	Bylaw lists setbacks for various activities or structures
Holbrook	N			Setbacks were removed from the bylaw at town meeting
Holden	N			
Holliston	Y	50		Variance allowed with credible evidence

Table 1. Summary of Buffer Zone Distances for Massachusetts Municipalities - 2004 Data

Municipality	Buffer Requirement (Y/N)	No Disturb (ft)	No Build (ft)	Notes
Hopkinton	Y	50		A table is provided depicting setbacks
		125		Vernal pool
Ipswich	Y	50	65	
		25	40	Projects or activities on previously developed lots for which neither a subdivision nor a change in use is proposed (grandfathering)
Kingston	Y	25		
		100		Vernal pool
Leicester	N			
Lexington	Y	25	50	Various uses and distances listed for new construction, existing construction, site development/landscaping
Lincoln	Y	50		
		100		Rivers or perennial streams
Littleton	N			
Lowell	Y	25-100		Communications conflicted
Lunenburg	Y	30		
Lynn	Y	25		Various activity limitations in bylaw
		100		Vernal pool minimum; evaluated on a case-by-case basis
Manchester-by-the-Sea	Y	25-50	50-75	List of various no-disturb and no-build distances for existing residential, new residential, subdivision, commercial/industrial, driveways/utilities/roads/drainage
Mansfield	Y	25	25-50	
Marblehead	Y	25	50	In no building zone, building means a structure requiring a building permit
		100		Vernal pool
Marshfield	Y	50	75	It appears that there is a 25-ft no-disturb for existing lots with existing buildings
		100		Vernal pool
Maynard	Y	25-50	100	Different requirements for various land use and wetland type
		100		Vernal pool
Medfield	Y	50		
Medway	Y	25		
Merrimac	Y	25	50	
		50	75	Vernal pool
Methuen	Y	35	50	Case-by-case evaluation for work in no-build zone using matrix information, such as slope, soil type, habitat, etc.; grandfathering exemptions
Milford	Y		15-25	Structure setbacks in zoning bylaw
Millis	N			
Millville	Y	50		

Table 1. Summary of Buffer Zone Distances for Massachusetts Municipalities - 2004 Data

Municipality	Buffer Requirement (Y/N)	No Disturb (ft)	No Build (ft)	Notes
Milton	Y	25		
Natick	Y	25	40	
		100		Vernal pool
Needham	Y	25		Has language regarding activities allowed if land is already disturbed and a lawn, parking lot, or driveway
		100		Vernal pool
Newbury	Y			Project specific (primarily shoreline)
Newburyport	N			
Newton	N			
Norfolk	Y		50	
North Andover	Y	25	50	
		50	75	Vernal pool
North Reading	Y	12		Cannot alter more than 75% of the lands within 100' of the resource area on any lot; vernal pools evaluated on case-by-case basis
Northborough	Y	15	30	Wider buffer may be required for projects involving steep slopes, highly erodible soils, extensive disturbed areas, or conditions likely to promote significant erosion
Northbridge	Y	25		Unwritten policy
Norwell	Y	50		
Norwood	Y	25	50	Open to variances
Peabody	Y			Not clear if it is 100 ft no-disturb, or case-by-case in that zone
Pepperell	Y	50		Also for vernal pools
Plainville	Y	35		Has horizontal *and* vertical distance to account for slope
Plymouth	Y	25		Various language which could increase the distance; it appears that something like a vernal pool would be a minimum of 50'
Quincy	N			
Reading	Y	25		Site-specific conditions (grades, soil permeability or other impact potential) may require greater distance
Revere	N			
Rockland	N			
Rockport	N			
Rowley	Y	25-50		Case-by-case
Salem	N			
Salisbury	Y	25	40	No structures in no-build zone, including sheds
Saugus	Y	30		Variances based on hardship or clear showing that no significant impact will occur to wetland
Scituate	Y	50		Could be greater than 50', but applicant or commission must demonstrate appropriateness
			125	Vernal pool

Table 1. Summary of Buffer Zone Distances for Massachusetts Municipalities - 2004 Data

Municipality	Buffer Requirement (Y/N)	No Disturb (ft)	No Build (ft)	Notes
Seekonk	Y	25	50	Wider if slopes exceed 25%; also applies to vernal pools
Sharon	Y	50	100	25 to 50 ft minimum for previously developed lots where alteration is proposed within an already disturbed area (e.g., a lawn). However, no additional alteration of the remaining undisturbed buffer will be permitted; greater distances based on site-specific conditions
Sherborn	Y	50		
Shirley	Y			Nothing beyond communication evidence
Southborough	Y	20		Variances allowed
Stoneham	N			
Stow	Y	35		
Sudbury	Y	100		
Sutton	Y			Case-by-case, but attempts to limit activities within 100'
Swansea	Y	25		Case-by-case, based on slope, soil type, ground cover, and project proposed
Taunton	Y	25		Case-by-case with guidance provided for various projects and wetland types
Tewksbury	Y	25	50	
Topsfield	Y	100		Allows for variances and includes vernal pools
Townsend	Y	35	50	
Tyngsborough	Y	30	50	
Upton	Y	30		Unwritten policy
Walpole	Y	25		Variance allowed if applicant can show protection of wetlands and water resources
Watertown	Y	50		
Wayland	Y	15-30		15' (vegetated, not mowed) for additions and existing dwellings; 30' for new construction; limits on irrigation and other activities set for other greater distances
Wellesley	Y	25	25-100	
Wenham	Y	20-100	20-200	Varies based on activity. Includes vertical dimension for no-disturb zone
West Bridgewater	Y	50		
Westford	Y	30-50	55-75	Shorter distances allowed for existing structures
Westwood	Y	35		Includes vernal pools
Weymouth	Y	25-50		Commercial/industrial no-disturb at 50'
Wilmington	N*			*Not included in reference document; Written policy which "seeks to maintain" single-family residential 15' no-disturb and 25' no-build distances and provides other guidance distances
Winchester	N			Unwritten policy encouraging 25'
Winthrop	N			Case-by-case basis

Table 1. Summary of Buffer Zone Distances for Massachusetts Municipalities - 2004 Data

Municipality	Buffer Requirement (Y/N)	No Disturb (ft)	No Build (ft)	Notes
Woburn	Y	15		Waivers on case-by-case basis
Worcester	Y	15	30	
Wrentham	Y	50		Hardship waivers allowed

Reference: *Setbacks from Wetlands*. Pioneer Institute for Public Policy Research. www.pioneerinstitute.org. Information collected in 2004.

APPENDIX A

October 2012 Special Town Meeting Article 19

ARTICLE 17

To see if the Town will vote to amend the Tewksbury Zoning Bylaw by taking the following actions; or take any other action relative thereto.

- 1) Section 2200- Delete 8200 Arts, Crafts, Antiques/ Cottage Industries Overlay District
- 2) Delete Section 8200 Arts, Crafts, Antiques/ Cottage Industries Overlay District

And amend the most recent Town of Tewksbury Zoning Map by deleting the Arts, Crafts, Antiques/ Cottage Industries Overlay District.

PLANNING BOARD

Executive Summary: This zoning overlay district is no longer necessary.

ARTICLE 18

To see if the Town will vote to amend the Tewksbury Zoning Bylaw by adding the following underlined text to the existing language for Cluster Subdivision Special Permits; or take any other action relative thereto.

7340. Dimensional Requirements.

All Other Lot Coverage and Dimensional Requirements	As per the standards prescribed for that district as set forth herein; <u>unless otherwise waived by the Planning Board</u>
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PLANNING BOARD

Executive Summary: The purpose of cluster development is to encourage the preservation of open space for conservation and recreation uses; to promote the better utilization of land in harmony with its natural features and with the general intent of the Zoning By-Law through a greater flexibility in design; to allow for a more efficient provision of municipal services. This article will allow for the greater flexibility in design.



ARTICLE 19

To see if the Town will vote to amend the Town Code known as the Tewksbury By-Laws, Chapter 18. Conservation Commission Wetlands Protection By-Law by changing the definition.

18.04.020 Definitions

“No Build Zone” means that portion of the Buffer Zone up gradient of the No Disturb Zone and extending to a line ~~fifty feet (50’)~~ twenty (20’) from the edge of those Wetland Resources, contiguous or intermittent, with a defined dimension, subject to restriction, defined in this bylaw.

“No Disturb Zone” means that portion of the Buffer Zone which extends ~~twenty five feet (25’)~~ (10’) from the edge of those Wetland Resources, contiguous or intermittent, with a defined dimension, subject to restriction, defined in this bylaw.

18.04.30 Jurisdiction

(7) For the No Disturb Zone which extends ~~twenty five~~ ten feet (25’) (10’) from the edge of the Wetland Resources Area, the Commission shall require the applicant to maintain a minimum continuous ~~25 foot~~ 10 foot wide No Disturb Zone of undisturbed, natural vegetation between the proposed activity and the resource area(s). The Commission shall also require a ~~fifty foot (50’)~~ twenty foot (20’) No Build Zone from the edge of the Wetland Resource Area, whereby the applicant is required to maintain any proposed building (residential or commercial) or structure, as defined in the regulations implementing the bylaw, at least ~~50~~ 20 feet from the resource area(s). When partial encroachment into the No Build Zone setback is unavoidable, the applicant may mitigate this encroachment by increasing the size of the buffer strip area by an amount equal to or greater than the area of the encroachment, using the following guidelines:

- 1) The encroachment shall not exceed 10% of the total area of the No Build Zone setback for the lot; and
- 2) The encroachment shall not exceed 25% of the recommended width of the total setback from the resource area.

- Add: 3) Drainage features associates with storm water management are exempt from the above buffer zones.**
- 4) **The commission may waive the setback entirely if there is a determination that the resource areas will not be impaired.**

18.04.45 Performance Standards

- 1) The following standards apply to the Buffer Zone of all the resource areas identified in this by bylaw:

~~25~~ 10 Foot No-Disturb Zone: Except as otherwise provided in this bylaw, no activity is permitted within ~~25~~ 10 feet of the delineated edge of the above-mentioned wetland resource areas. Prohibited activities include, but are not limited to, grading, landscaping, vegetation clearing, cutting, filling excavating, road construction, and driveway construction. This standard has been adopted because the alteration of land immediately adjacent to a wetland is likely to result in the alteration of the wetland itself. Alterations typically result from extension of lawns, depositing/dumping of yard waste, over grading, siltation, deposition of construction debris, unregulated filling, and clearing of vegetation, all of which is prohibited.

18.04.40 Exceptions

Other than as stated below, those exceptions provided in the Wetlands Protection Act shall not apply under this Bylaw.

(1) General Exceptions

c) The following are exempt minor activities as long as they are located in the No Build Zone. These activities are described in the State Wetland Regulations (310 Code of Massachusetts Regulations 10.00 Section 10.58(6)). The landowner can proceed with these tasks without prior review by the Conservation Commission.

vii) Conversion of lawns to decks, sheds, patios, and pools that accessory to single family homes, as long as:

- a. House existed prior to May 1, 2002;

- b. Activity located more than ~~25~~ 10 feet from the Wetland Resource Area or bordering vegetated wetland (whichever is farther, and
- c. Sedimentation and erosion controls used during construction

PHIL AND KRISTEN POLIMENO
TODD AND KRISTEN KEANE

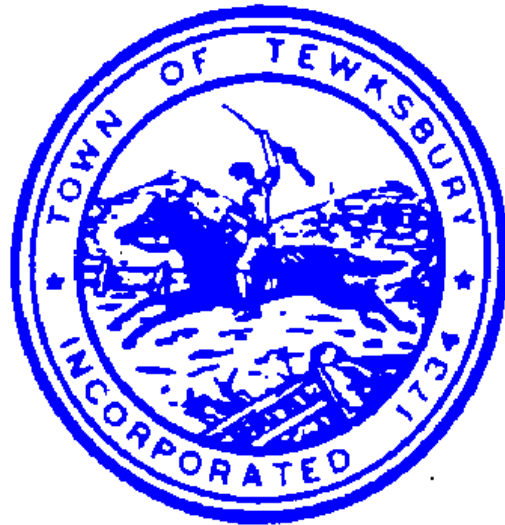
Executive Summary: This amendment provides the Conservation Commission with some flexibility on a case by case basis, for work being done in the local by-law buffer zones. The local by-law remains more restrictive than the State Wetlands Protection Act.

APPENDIX B

Town Of Tewksbury Wetlands Protection Bylaw

August 2012

TOWN OF TEWKSBURY



CONSERVATION COMMISSION WETLANDS PROTECTION BYLAW AUGUST 2012

CONSERVATION COMMISSION WETLANDS PROTECTION BYLAW

Sections

- 18.04.010 Purpose**
- 18.04.020 Definitions**
- 18.04.030 Jurisdiction**
- 18.04.040 Exceptions**
- 18.04.045 Performance Standards**
- 18.04.050 Applications for permit and requests for determination**
- 18.04.060 Notice and hearings**
- 18.04.070 Time of receipt**
- 18.04.080 Coordination with other boards**
- 18.04.090 Permits, determinations -- Conditions**
- 18.04.100 Modifications**
- 18.04.110 Registry of deeds**
- 18.04.120 Certificate of compliance**
- 18.04.130 Regulations**
- 18.04.140 Enforcement**
- 18.04.150 Inspection**
- 18.04.160 Burden of Proof**
- 18.04.170 Relation to the wetlands protection act**
- 18.04.180 Performance guarantee**
- 18.04.190 Appeal**
- 18.04.200 Amendments**
- 18.04.210 Penalties**
- 18.04.220 Pre-acquisition violation**

Record of Revisions:

	Description	Town Meeting	Attorney General
1.	Add new Section 18.04.40, Exceptions (3)	Article 14-10/7/03 STM	11/7/03
2.	Amend entire Bylaw	Article 6-5/5/09 STM	9/30/09
3.	Amend Definition of Abutter	Article 33-5/7/12 ATM	8/3/12
4.	Amend 18.04.060 Notice and Hearings	Article 34-5/7/12 ATM	8/3/12
5.	Amend Definition of Structure	Article 35-5/7/12 ATM	8/3/12
6.	Amend 18.04.30 Stormwater	Article 36-5/7/12 ATM	8/3/12

18.04.010 Purpose

The purpose of the Wetlands Protection Bylaw (“Bylaw”) is to protect the wetlands, related water resources, and adjoining land areas in the Town of Tewksbury (“Town”). The present state law is the Wetlands Protection Act, M.G.L. c.131, s.40, as amended (“Act”). The act set minimum standards for every city and town in the Commonwealth of Massachusetts to follow.

This Bylaw will enable the Town to protect local resource areas and to reduce any significant or cumulative effect upon the wetlands in the Town.

The purpose of this Bylaw is to control activities deemed by the Tewksbury Conservation Commission to have a significant or cumulative effect upon wetland values, including but not limited to, the following: public and private water supplies, groundwater quantity, quality and supply, surface water quantity and quality, flood control, erosion and sedimentation control, prevention of storm damage, prevention and control of pollution, wildlife habitat, rare species habitat including rare plant and animal species, fisheries, agriculture and aquaculture and recreation values deemed important to the community. (collectively, the "wetland values protection by this Bylaw").

18.04.020 Definitions

The definitions given in 310 CMR 10.04 for the following terms shall apply to this Bylaw and statutory amendment protecting wildlife habitat in wetland resource areas enacted July 16, 1986 (Section 44 of Chapter 44 of Chapter 231 of the Acts of 1986), amending Section 40 of Chapter 131 of Massachusetts General Laws, amendments and regulations promulgated there under:

dredge, fill flood control, freshwater wetlands, lake, bordering land subject to flooding, marsh, meadow, private water supply, public water supply, river.

The following definitions shall apply in the interpretation and implementation of this Bylaw. Except as otherwise provided herein or in the Commission's regulations, the definitions of terms shall be as set fourth in the Wetlands Protection Act.

“Alter” includes, without limitation, the following activities, whether temporary or permanent, when taken to, upon or within, or when they affect local resource areas protected by this Bylaw:

- (1) Removing, excavating, or dredging of soil, sand, gravel, or aggregate materials of any kind;
- (2) Changing preexisting drainage characteristics, flushing characteristics, sedimentation patterns, flow patterns, or flood retention characteristics;
- (3) Draining or otherwise disturbing the ground or surface water level or water table;
- (4) Dumping, discharging, or filling with any material which may degrade water quality;
- (5) Placing or removing of fill or other material, which would alter the elevation or land surface;
- (6) Driving piles, erecting or repairing buildings (residential or commercial) or structures, as defined in the regulations implementing the bylaw, of any kind;

- (7) Placing of obstructions in water, whether or not they interfere with the flow of water;
- (8) Changing water temperature, biochemical oxygen demand, or any other physical, biological, or chemical characteristics of the water;
- (9) Destroying plant life, including cutting trees and shrubs;
- (10) Conducting any work or activity which may cause or tend to contribute to pollution of any body of water or groundwater;
- (11) Applying pesticides or herbicides;
- (12) Any activities, changes or work which cause alteration of wildlife habitat; and
- (13) Any activities, changes or works which pollute or cause displacement of any body of water or groundwater.
- (14) Incremental activities which have, or may have, a cumulative adverse impact on the resource areas protected by this bylaw.

“Abutter” means the owner of any property any portion of which lies within 100 feet radially from any lot line of the subject property including owners of land directly opposite on any public or private street or way including any in another municipality or across a body of water. In the case of property that has frontage on a pond, abutters shall include all those properties with frontage on the pond or pond association if in existence.

“Administrative Orders” shall include but not limited to enforcement orders, violation notices, orders of conditions, orders of resource delineation and Certificates of Emergency.

“Bank” means the land area which normally abuts and confines a body of water; the lower boundary being the mean annual low flow level, and the upper boundary being the first observable break in the slope or the mean annual flood level, whichever is higher.

“Bogs” are areas where standing or slowly running water is near or at the surface during a normal growing season and where a vegetational community has a significant portion of the ground or water surface covered with sphagnum moss (*Sphagnum*), and where the vegetational community is made up of a significant portion of one or more of, but not limited to nor necessarily including all, of the following plants or groups of plants: aster (*Aster nemoralis*), azaleas (*Rhododendron condense* and *R. viscosus*), black spruce (*Picea Mariana*) bog cotton (*Eriophorum*), cranberry (*Vaccinium macrocarpon*) high bush berry (*Vaccinium corymbosum*), larch (*Larix laricina*) laurels (*Kalmia angustifolia* and *K. polifolia*), leatherleaf (*Chamaedaphne calyculata*), orchids (*Arethusa*, *Calopogon*, *Pogonia*), pitcher plants (*Sarracenia purpurea*), sedges (*Cyperaceae*), sundews (*Droseraceae*), sweet gale (*myrica gale*) white cedar (*Chamaecyparis thyoides*).

“Bordering land subject to flooding” is an area with low, flat topography adjacent to and inundated by flood waters rising from creeks, streams, rivers, ponds (natural or created) or lakes. The boundary of bordering land subject to flooding is the one-hundred –year floodplain. It extends from the outer edge of a bank or bordering vegetated wetland.

“Bordering Vegetated Wetlands” are freshwater wetlands which border on creeks, streams, rivers, ponds and lakes in areas where the topography is low and flat. Bordering vegetated wetlands are areas where the soils are annually saturated and / or inundated such that they support a predominance (50% or greater) of wetland indicator plants. Types of vegetated wetlands include wet meadows, marshes, swamps and bogs. Wetlands and their boundaries shall be identified in the manner designated in the Massachusetts DEP Handbook “Delineating Bordering Vegetated Wetlands under Massachusetts Wetlands Protection Act,” March 1995, and future amendments, other DEP guidance documents generally accepted by Conservation Commissions for purposes of bordering vegetated wetland.

“Buffer Zone” means a band of land, contiguous or intermittent, with a defined dimension, subject to restriction, located in land within 100 feet of Wetland Resource Areas (200 feet in the case of rivers, and perennial streams and potentially identified or certified vernal pools). (Also known as Buffer Zone Resource Areas)

“Buffer Zone” means land within 100 feet in a parallel line of any of the established wetland resource areas, including potential and certified vernal pools.

“Commission” means the Tewksbury Conservation Commission.

“Department” is the Department of Environmental Protection (DEP).

“Drained” means a condition in which ground or surface water has been removed by either natural or artificial means.

“Dredge” means to deepen, widen, or excavate, either temporarily or permanently.

“Flooded” means a condition in which the soil surface is temporarily covered with flowing water from any source, such as streams overflowing their banks, runoff from adjacent or surrounding slopes, inflow from high tides, or any combination of sources.

“Freshwater wetlands” are wet meadows, marshes, swamps and bogs.

“Hill Peat” means accumulation of organic soil in an upland position due to excess moisture resulting from subsoil seepage or lack of evapotranspiration.

“Isolated land subject to flooding” is any isolated depression without an inlet or outlet which at least once a year confines standing water to a volume of at least ¼ acre-foot of water with an average depth of at least six inches. The boundary is the perimeter of the largest observed or recorded volume of water confined in the basin.

“Lake (great pond)” means any open body of fresh water with a surface area of 10 acres or more.

“Large Isolated Wetlands” means isolated wetlands 5,000 square feet or larger.

“Limited Project” means construction of access drives or roadways across freshwater wetlands when no alternative access exists. Construction, reconstruction, operation, and maintenance of public utilities, including electrical distribution or transmission lines, sewers, water lines, natural gas pipelines, and telecommunication lines. Maintenance and improvement of existing public roadways including maintaining and improving drainage building (residential/ commercial)s, adding shoulders, correcting substandard intersections, and widening (provided that less than a single lane is widened and as found in the Massachusetts Wetlands Protection Regulations.)

“Local Resource Areas” means those areas of the Town referenced in the “Jurisdiction” section below. The Commission has jurisdiction over these local resource areas.

“Marshes” are areas where a plant community exists in standing or running water during the growing season and where a significant part of the vegetational community is composed of, but not limited to nor necessarily including all, of the following plants or groups of plants: arums (Araceae), bladder worts (Utricularia), burr reeds (Sparganiaceae), button bush (Cephalanthus occidentalis), cattails (Typha), duck weeds (Lemnaceae), eelgrass (Vallisneria), frog bits (Hydrocharitaceae), horsetails (Equisetaceae), hydrophilic grasses (Gramineae), leatherleaf (Cahmaedaphne calyculata) pickerel weeds (Pontederiaceae), pipeworts (Eriocaulon), pond weeds (Potamogeton), rushes (Junceaceae), sedges (Cyperaceae), smartweeds (Polygonum), sweet gale ((Myrica gale), water milfoil (Haloragaceae), water lilies (Nymphaeaceae), water starworts (Callitrichaceae), water willow (Decodon verticillatus).

Mottling” means spots or blotches of different color or shades of color interspersed with the dominant matrix color.

“No Build Zone” means that portion of the Buffer Zone up gradient of the No Disturb Zone and extending to a line fifty feet (50’) from the edge of those Wetland Resources, contiguous or intermittent, with a defined dimension, subject to restriction, defined in this bylaw.

“No Disturb Zone” means that portion of the Buffer Zone which extends twenty-five feet (25’) from the edge of those Wetland Resources, contiguous or intermittent, with a defined dimension, subject to restriction, defined in this bylaw.

“Oxidation” means the combining with oxygen as in the decomposition or breakdown of organic matter when exposed to air.

“Ped” means aggregation of individual soil particles into larger units planes of weakness between them

“Permit Application” means any application for a permit or other action under the Massachusetts Wetlands Protection Act, MGL Ch. 131, Sec. 40, or the Town of Tewksbury Wetland Protection Bylaw. Examples include, but are not limited to, Notices of Intent, Abbreviated Notices of

Resource Area Delineation, Requests for Determination of Applicability, Requests for a Determination of Negligible Impact, Requests for an Extension to an Order of Conditions, Requests for an Amended Order of Conditions, Requests for a Certificate of Compliance, and Requests for an amended Order of Resource Area Delineation.

“Person” means an entity which includes any individual, group of individuals, association, partnership, corporation, company, business organization, trust, estate, the Commonwealth or political subdivision thereof to the extent subject to Town bylaws, administrative agency, public or quasi-public corporation or body, a municipality, and any other legal entity, its legal representatives, agents or assigns.

“Ponds”:

- 1) Shall include any substantially open body of fresh water with a surface area observed or recorded, within ten years prior to the date of application, of at least 5,000 square feet. Ponds may be either naturally occurring or man-made by impoundment, excavation, or otherwise. Ponds shall contain standing water except for periods of extended drought. For the purposes of this definition, extended drought shall be defined at 310 CMR 10.58.2 as it may be amended.
- 2) Notwithstanding the above, the following man-made bodies of open water shall not be considered ponds: swimming pools or other impervious man-made basins.

“Rare Species” means, without limitations, all vertebrate and invertebrate animals and all plant species listed as endangered, threatened, or of special concern by the Massachusetts Division of Fisheries and Wildlife, regardless whether the site in which they occur has been previously identified by the Division.

“Resource Areas (natural or created)” include any freshwater wetlands, marshes, wet meadows, bogs, swamps, lakes, ponds (natural or created), rivers, streams, banks, vernal pools, large isolated wetlands, land under water in each resource area, riverfront area, land subject to flooding or inundation by groundwater or surface waters, and buffer zones as defined in the Bylaw.

“Resource Area Values” include but are not limited to the following: public or private water supply, groundwater, flood control, erosion, and sedimentation control, storm damage prevention, water quality, water pollution control, fisheries, wildlife habitat, rare species habitat including rare plant species, agriculture, riverfront area values and recreation values deemed important to the community.

“River” shall be defined by 310 CMR 10.58.2 and as amended.

“Riverfront” shall be defined by 310 CMR 10.58.2 and as amended.

“Stream” shall be defined by 310 CMR 10.58.2 and as amended.

“Structure”- A combination of materials assembled at a fixed location to give support or shelter such as a building, house, barn, garage, or shed. The word “Structure” shall be construed, where

the context requires, as though followed by the words “or part or parts thereof”. However, in reference to the No Build Zone, “Structure” shall not include fences, retaining walls, decks, patios, gazebos, lawn furniture, children’s toys such as sandboxes and swing-sets, rip-rapped areas, driveways, parking areas, sheds (not to exceed 120 square feet in floor area), or the like.

“Swamps” are areas where ground water is at or near the surface of the ground for a significant part of the growing season or where runoff water from surface drainage frequently collects above the soil surface, and where a significant part of the vegetational community is made up of, but not limited to nor necessarily include all of the following plants or groups of plants: alders (*Alnus*), ashes (*Fraxinus*), azaleas (*Rhododendron canadense* and *R. viscosum*), black alder (*Ilex verticillata*), black spruce (*Picea mariana*), buttonbush (*Cephalanthus occidentalis*), American or white elm (*Ulmus Americana*), white Hellebore (*Veratrum viride*), hemlock (*Tsuga Canadensis*), highbush blueberry (*Vaccinium corymbosum*), larch (*Larix laricina*), cowslip (*Caltha palustris*), poison sumac (*Toxicodendron vernix*), red maple (*acer rubrum*), skunk cabbage (*Symplocarpus foetidus*), sphagnum mosses (*Sphagnum*), spice bush (*Lindera benzoin*), black gum tupelo (*Nyssa sylvatica*), sweet pepperbush (*Clethra alnifolia*), white cedar (*Chamaecyparis thyoides*), willow (*Salicaceae*), common reed (*Phragmites communis*), and jewelweed (*Impatiens capensis*).

“Vernal Pools” means a confined depression which provides habitat for vernal pool species, whether or not certified by the Massachusetts Natural Heritage program. Vernal pool species are those vertebrate and invertebrate species listed in the January 1991 edition of Massachusetts Audubon Society's “A Citizen's Step-by-Step guide to Protecting Vernal Pools”. In addition to the scientific definitions found in the Regulations, any confined basin or depression not occurring in existing lawns or driveways that , at least in most years, holds water for a minimum of two continuous months during the spring and/or summer, contain at least 200 cubic feet of water at some time during most years, is free of adult predatory fish populations, and provides essential breeding and rearing habitat functions for amphibian, reptile or other vernal pool community species, regardless of whether the site has been certified by the Massachusetts Division of Fisheries and Wildlife, and regardless of whether the site is contained within another resource area shall be defined as a vernal pool. The adjacent upland buffer zone resource area for vernal pools shall extend 200 feet outward from the mean annual high-water line defining the depression.

“Wetland Resource Area” is any resource area other than the buffer zone and riverfront area.

“Wet Meadows” are areas where ground water is at the surface for the significant part of the growing season and near the surface throughout the year and where a significant part of the vegetational community is composed of various grasses, sedges, and rushes, made up of, but not limited to nor necessarily including all of the following plants or groups of plants: blue flag (*Iris*), vervain (*Verbena*), thoroughwort (*Eupatorium*), dock (*Rumex*), false loosestrife (*Ludwigia*), hydrophilic grasses (*Gramineae*), loosestrife (*Lythrum*), marsh fern (*Dryopteris thelypteris*), rushes (*Juncaceae*), sedges (*Cyperaceae*), sensitive fern (*Onoclea sensibilis*), and smartweed (*Polygonum*).

18.04.30 Jurisdiction

Except as permitted by the Commission or as provided in this Bylaw, no person shall alter, dredge, fill, and remove the following local resource areas:

- (1) Within 200 feet of any river, perennial stream or vernal pool;
- (2) Within 100 feet of any bordering vegetated wetlands, freshwater wetland, wet meadow, marsh, swamp or bog;
- (3) Within 100 feet of any brook, stream (intermittent or spring), pond (natural or created) or lake;
- (4) Land under any of the bodies of water listed in (1) and (2) above;
- (5) Within 100 feet of bordering or isolated land subject to flowing or inundation by groundwater or surface water. The term inundation by groundwater at or near the surface of the ground at least six months of the year.
- (6) Buffer zone where an activity is proposed within the buffer zone, the Commission shall presume that the activity has a high likelihood of altering any resource area adjacent to the buffer zone unless the proponent proves by a preponderance of the credible evidence that either:
 - a) The buffer zone does not play a role in the protection of any of the wetland values of the Bylaw or;
 - b) The activity shall occur in such a manner that any potential adverse environmental impacts on any of the wetland values are avoided.
- (7) For the No Disturb Zone which extends twenty-five feet (25') from the edge of the Wetland Resources Area, the Commission shall require the applicant to maintain a minimum continuous 25-foot wide No Disturb Zone of undisturbed, natural vegetation between the proposed activity and the resource area(s). The Commission shall also require a fifty feet (50') No Build Zone from the edge of the Wetland Resource Area, whereby the applicant is required to maintain any proposed building (residential or commercial) or structure, as defined in the regulations implementing the bylaw, at least 50 feet from the resource area(s). When partial encroachment into the No Build Zone setback is unavoidable, the applicant may mitigate this encroachment by increasing the size of the buffer strip area by an amount equal to or greater than the area of the encroachment, using the following guidelines:
 - 1) **The encroachment shall not exceed 10% of the total area of the No Build Zone setback for the lot; and**
 - 2) **The encroachment shall not exceed 25% of the recommended width of the total setback from the resource area.**

The applicant shall demonstrate to the Commission's satisfaction that future use of the site is not likely to result in intrusion into, or alteration of, the No Disturb Zone. The Commission may require the applicant to submit a use plan and narrative as part of that demonstration. At the Commission's request, the applicant shall demonstrate to the Commission's satisfaction that work or activities proposed at the

edge of the No Disturb Zone are necessary and that reasonable alternatives, including reducing the scale and scope of the project or adjusting other setbacks, do not exist.

- (8) Where an activity is proposed within a vernal pool, the Commission shall presume that the activity has a high likelihood of altering the habitat for the vernal pool species unless the proponent proves by a preponderance of the credible evidence that either;
 - a) The vernal pool shall not have been used by vernal pool species as habitat;
 - b) The activity shall occur in such a manner that any potential adverse environmental impacts on any of the wetland values are avoided.
- (9) For stormwater management purposes, the Commission may allow encroachment into the no build zone.

18.04.40 Exceptions

Other than as stated below, those exceptions provided in the Wetlands Protection Act shall not apply under this Bylaw.

(1) General Exceptions

a) The permit and application required by this Bylaw shall not be required for:

- i) Maintaining, repairing or replacing but not substantially changing or enlarging, an existing and lawfully located building (residential/commercial) or facility used in the service of the public to provide electric, gas, water, telephone or other telecommunication services;
- ii) Work performed for normal maintenance or improvement of land in agricultural use or in aquacultural use;
- iii) Mosquito control projects when performed by the Town or the Commonwealth or political subdivision thereof, or
- iv) Maintenance by the Town of its drainage system.

These exceptions shall be permitted only if written notice with suitable plans has been given to the Commission at least twenty (20) business days prior to the commencement of work and provided that the work conforms to performance standards and design specifications in regulations adopted by the Commission.

- b) The following are exempt minor activities as long as they are located in the riverfront area or buffer zone, but not within any resource area. These activities are described in the State Wetland Regulations (310 Code of Massachusetts Regulations 10.00 Section 10.58(6)). The landowner can proceed with these tasks without prior review by the Conservation Commission.
 - i) Unpaved pedestrian walkways for private use;
 - ii) Fencing that does not create a barrier to wildlife movement
 - iii) Stone walls without mortared foundations;

- iv) Stacks of cordwood;
- v) Vista pruning—the selective thinning of tree branches or understory shrubs to create a window to improve visibility—as long as it occurs more than 50 feet from the mean annual high-water line within a riverfront area or from a bordering vegetated wetland, whichever is farther. (This activity does not include the cutting of trees with reduces the leaf canopy to less than 90 percent of the existing crown cover or the mowing or removal of understory brush.)
- vi) Planting of native trees, shrubs, or groundcover, but not turf lawns;
- vii) Conversion of lawns to decks, sheds, patios, and pools that accessory to single family homes, as long as:
 - a. House existed prior to August 7, 1996;
 - b. Activity located more than 50 feet from the mean annual high-water of the riverfront area or bordering vegetated wetland (whichever is farther, and
 - c. Sedimentation and erosion controls used during construction
- viii) Conversion of patios, pools, sheds, or other impervious surfaces to lawn or natural vegetation
- ix) Activities, such as monitoring wells, exploratory borings, soil sampling, and surveying, that are temporary, have negligible impacts, and are necessary for planning and design purposes.

(Note; Maintenance of existing landscaping, including lawn mowing and pruning, is exempt from review regardless of location in the buffer zone or any wetland resource area.)

- c) The following are exempt minor activities as long as they are located in the No Build Zone. These activities are described in the State Wetland Regulations (310 Code of Massachusetts Regulations 10.00 Section 10.58(6)). The landowner can proceed with these tasks without prior review by the Conservation Commission.
 - i) Unpaved pedestrian walkways for private use;
 - ii) Fencing that does not create a barrier to wildlife movement
 - iii) Stone walls without mortared foundations;
 - iv) Stacks of cordwood;
 - v) Vista pruning—the selective thinning of tree branches or understory shrubs to create a window to improve visibility—as long as it occurs more than 50 feet from the mean annual high-water line within a riverfront area or from a bordering vegetated wetland, whichever is farther. (This activity does not include the cutting of trees with reduces the leaf canopy to less than 90 percent of the existing crown cover or the mowing or removal of understory brush.)
 - vi) Planting of native trees, shrubs, or groundcover, but not turf lawns;
 - vii) Conversion of lawns to decks, sheds, patios, and pools that accessory to single family homes, as long as:
 - a. House existed prior to May 1, 2002;
 - b. Activity located more than 25 feet from the Wetland Resource Area or bordering vegetated wetland (whichever is farther, and

- c. Sedimentation and erosion controls used during construction
- viii) Conversion of patios, pools, sheds, or other impervious surfaces to lawn or natural vegetation
- ix) Activities, such as monitoring wells, exploratory borings, soil sampling, and surveying, that are temporary, have negligible impacts, and are necessary for planning and design purposes.

(Note; Maintenance of existing landscaping, including lawn mowing and pruning, is exempt from review regardless of location in the buffer zone or any wetland resource area.)

(2) Emergency projects.

The permit and applications required by this Bylaw shall not be required for emergency projects necessary for the protection of the health or safety of the public, provided that the work is to be performed by or has been ordered to be performed by an agency of the Commonwealth or a political subdivision thereof, and provided that all the following conditions are met:

- (a) Written notice has been given to the Commission prior to the commencement of work or within twenty-four (24) hours after commencement. In cases determined by the Commission to be extreme emergencies, verbal notice to be provided within five (5) business days.
- (b) The Commission or its agent certifies the work as an emergency project;
- (c) The work is performed only for the time and place certified by the Commission for the limited purposes necessary to abate the emergency; and
- (d) Within twenty-one (21) days of commencement of an emergency project an application for permit shall be filed with the Commission for review as provided in this Bylaw.

Upon failure to meet these conditions, the Commission may, after notice and a public hearing, revoke or modify an emergency project approval and order restoration and mitigation measures.

(3) Public Good

Where a project is necessary for the protection of the health or safety of the public as determined by the Police Chief, Fire Chief, Superintendent of Public Works or Board of Health, or a project substantially changes, enlarges or creates a building, facility or structure as defined in the regulations used to provide local services of sewer, water, or stormwater drainage, or state or federally regulated public utilities such as electrical distribution or transmission lines, or communication, and natural gas lines, or public sidewalks, the Commission may waive the requirements associated with the No Disturb Zone and No Build Zone setback requirements of this bylaw 18.04.30(6), and permit activities, provided that the applicant has proved by a preponderance of credible evidence that (1) there is no practicable alternative to the proposed project that would avoid or reduce the project's impact, and that (2) said project, including proposed mitigation measures, will have no significant adverse impact on the areas or values protected by this bylaw. The definition of practicable shall be the same as set forth in the

Massachusetts Wetland Regulations 310 CMR 10.58(4) - General Performance Standard of the Riverfront Area.

(4) Waiver

- a) Where the strict application of this Bylaw, or the rules and regulations adopted by the Tewksbury Conservation Commission, owing to the shape or topography of the applicant's property, would impose severe economic hardship, as defined either in statute or case law, on the applicant, taking into account an investment based expectation, or when a waiver would serve a substantial public benefit, the Commission may at their sole discretion grant a waiver from the dimensional requirements of the No Disturb Zone, No Build Zone and allow impacts on the wetland areas protected by this Bylaw. Impact to the wetlands areas shall be minimized to the furthest possible and practicable extent and any appropriate replication or mitigation will be confined to the property itself. This exception shall not apply to property where the applicant, owner, or predecessors in title to the property, created the hardship or rendered the property unusable by their own actions.
- b) The Commission may grant a partial waiver from these bylaws for alteration of a wetland resource area in situations where there are no feasible alternatives that provide fewer impacts to the resource area values. The applicant is responsible for conducting an alternatives analysis to show that there are no feasible alternatives. The Commission may, after considering the alternatives analysis, allow the alteration or temporary surface disturbance of up to a cumulative total no greater than 5,000 square feet of wetland resource area.
- c) **Presumption of Significance:** Where a proposed activity involves the removing, filling, dredging, or altering of a Buffer Zone, the Commission shall presume that protection of the Buffer Zone as a resource area as identified in this Bylaw is significant to the interests specified Section 18.04.010 of this bylaw. This presumption may be overcome upon a showing of clear and convincing evidence demonstrating that the Buffer Zone does not play a role in the protection of said interests. In the event that the Commission determines that the presumption has been overcome, it shall make a written determination of its findings.

(5) Additional Waiver Standards

- a) **Roadways-** The Commission may grant a waiver from these regulations for the construction and maintenance of a new roadway or driveway of minimum legal and practical width consistent with the Planning Board dimensional requirements to provide a single means of access from an existing public or private way to an upland area of the same owner, where no such means of access would otherwise be available or would have been available across other land formerly held in common ownership with such upland area. The applicant is still bound by the maximum alteration limit of 5,000 square feet as described in section 18.04.40 (4) b) above. Replication of altered wetland resource

areas shall be required by the Commission to minimize adverse impacts and to protect the interests defined in the Bylaw.

- b) Prohibited Wetland Alterations- Wetland alterations intended to make lands buildable, as by fulfilling septic system setback requirements, flood elevation requirements, or other minimum construction setback requirements, or to achieve minimum lot area requirements, are prohibited. Wetland alterations required to access upland parcels will not be allowed if that landowner, or a preceding owner, landlocked the parcel by selling upland access. The Commission may require the filing of a request for a waiver of certain Planning Board requirements in order to minimize wetland impacts.
- c) Wildlife Habitat Evaluation- Where alterations exceed the maximum allowable thresholds described in the State Regulations 310 CMR 10.00 for bank, land under a water body, bordering land subject to flooding or riverfront area, or where the alteration of a habitat of rare species is involved, or where vernal pool or vernal pool habitat would be altered, a wildlife habitat evaluation shall be performed in accordance with 310 CMR 10.60. The Commission may also require a wildlife habitat evaluation to be conducted when the applicant proposes alterations to any wetland resource area that the Commission determines to be of exceptional value to the wildlife habitat interests of the Bylaw.
- d) Upland Habitat- Upland habitat shall, to the fullest extent possible, not be used to locate wetland replication areas.

18.04.45 Performance Standards

- 1) The following standards apply to the Buffer Zone of all the resource areas identified in this bylaw:
 - a) 25-Foot No-Disturb Zone: Except as otherwise provided in this bylaw, no activity is permitted within 25 feet of the delineated edge of the above-mentioned wetland resource areas. Prohibited activities include, but are not limited to, grading, landscaping, vegetation clearing, cutting, filling excavating, road construction, and driveway construction. This standard has been adopted because the alteration of land immediately adjacent to a wetland is likely to result in the alteration of the wetland itself. Alterations typically result from extension of lawns, depositing/ dumping of yard waste, over grading, siltation, deposition of construction debris, unregulated filling, and clearing of vegetation, all of which is prohibited.
 - b) No-Disturb Zone Demarcation: To maintain the perpetual integrity of the No-Disturb Zone and to ensure that there will be no encroachments into this Zone by the applicant or future owners of the subject property, the Commission may require the No-Disturb Zone to be marked on the ground, at the applicant's expense, with permanent markers. These markers shall be made of weather resistant material (i.e. granite, or concrete), and the Commission shall determine their number, size and location. The Commission may require one

or more of these markers to bear, on their upland side, writing (i.e. permanent plaque or engraving) that shall read “No Disturbance beyond This Point by Order of the Tewksbury Conservation Commission.”

18.04.50 Application for Permit and Requests for Determination

A person shall file with the Commission a written application form provided by the Commission requesting to perform activities regulated by the by-law affecting local resource areas. The application shall include, in addition to the information and plans as are deemed necessary by the Commission to describe proposed activities and their effects on the local resource areas. No activities shall commence without receiving and complying with a permit issued pursuant to this by-law.

The Commission in its discretion may accept as the application for permit under this by-law the Notice of Intent and plans filed under the Wetlands Protection Act.

Any person desiring to know whether or not a proposed activity or certain property is subject to this by-law may request in writing a determination from the Commission. Such a request for determination shall contain information and plans specified in the Commission’s regulations.

At the time of an application for permit or Request for Determination, the applicant or requestor shall pay an application fee and, if necessary, a consultant fee.

18.04.60 Notice and Hearings

Any person filing an application for permit or a Request for Determination with the Commission at the same time shall give written notice thereof, by certified mail (return receipt requested) or hand delivery, to all abutters at their mailing addresses shown on the most recent applicable tax list of the assessors, including owners of land directly opposite on any public or private street or way and abutters to the abutters within 100 feet of the property line of the applicant, including any in another municipality or across a body of water; however, if the owner's property line is more than 1500 feet from the applicant's or requestor's property line, he or she is not an abutter. The notice to abutters shall include a copy of the application for permit or request for determination, with plans, or shall state where copies may be examined and obtained by abutters free of charge. The Town shall not be responsible for providing free copies. A copy of the notice mailed or delivered and a list of all abutters and abutters to abutters as described above and their respective addresses, certified by the Board of Assessors from the most recent applicable tax list, shall be filed with the Commission at least one week prior to the public hearing date.

The Commission shall conduct a public hearing on any application for permit or Request for Determination. The applicant or requester shall give, at his or her expense, written notice of the public hearing in a newspaper of general circulation in the Town. This written notice must be published at least five (5) business days prior to the public hearing.

Request for Determination of Applicability filings submitted to the Conservation Commission exclusively for the purpose of septic system repair, shall be specifically exempted from the requirements of a public hearing including advertising and notification requirements.

The Commission shall commence the public hearing with twenty-one (21) days from receipt of a completed application for permit or Request for Determination. The Commission may continue the hearing if the applicant or requester authorizes an extension in writing. However, the Commission in its discretion may reject the applicant's or requestor's continuance request and proceed with the hearing. The Commission shall issue its permit or determination in writing within twenty-one (21) days of the close of the public hearing unless a time extension is authorized in writing by the applicant or requester.

The Commission in its discretion may combine its hearing under this Bylaw with the hearing conducted under the Wetlands Protection Act.

The Commission shall have the authority to continue the hearing to a date announced at the hearing, for reasons stated at the hearing, which may include receipt of additional information offered by the applicant, requester or others, information and plans required of the applicant or requester deemed necessary by the Commission in its discretion, or the comments and recommendations of the boards listed in Section 18.04.080. However, if the applicant or requester objects to a continuance, the hearing shall be closed and Commission shall take action on such evidence as is then available.

Public Utilities (Roadways). Permit applications for construction or maintaining public utilities in existing town roadways shall provide written notification to all abutters on both sides of the roadway for the extent of the Town road right-of-way that is located within the 100 foot buffer zone.

Public Utilities (Easements). Permit applications for constructing or maintaining public utilities located within property easements shall provide written notification to property owners of the easement and all abutters within 100 feet in all directions of the easement right-of-way for the extent of the easement that is located within the 100-foot buffer zone. Request for Determinations shall require written notification to property owners of the easement in which they intend to work.

18.04.70 Time of Receipt

The date of receipt of an application for permit or Request for Determination will be considered to be the date of the first regularly scheduled meeting of the commission following submission of the completed filing at the Commission's office.

18.04.80 Coordination with Other Boards

Any person filing an application for permit or a Request for Determination with the Commission shall provide copies thereof at the same time, by certified mail (return receipt, requested) or hand delivery, to the Board of Selectmen, Planning Board, the Board of Appeals, the Board of Health and the Building Inspector. The person providing such, copies shall file an affidavit with the Commission stating that he or she has mailed or delivered the application for permit or request for determination to the above-named boards. The Commission shall not take final action until

such boards have had fourteen (14) days from receipt of the application for permit or Request for Determination to file written comments and recommendations with the Commission, which the Commission shall take into account but which shall not be binding on the Commission. The applicant or requestor shall have the right to receive any such comments and recommendations and to respond to them at a hearing of the Commission, prior to final action.

18.04.90 Permits, Determinations - Conditions

If the Commission, after a public hearing, determines that the activities which are the subject of the application for permit are likely to have a significant or cumulative effect upon the wetland values protected by this Bylaw, the Commission, within twenty-one (21), days of the close of the hearing, shall issue or deny a permit for the activities requested. If the applicant gives a written authorization for an extension, the Commission may issue its permit or denial on the date specified in the authorization. If it issues a permit, the Commission shall impose conditions which the Commission deems necessary or desirable in order to protect the wetlands values, and all activities shall be one in accordance with those conditions.

The Commission is empowered to deny an application for permit for failure to meet the requirements of this Bylaw; for failure to submit the necessary information and plans requested by the Commission; for failure to meet the design specifications, performance standards and other requirements in the Commission's regulations; for failure to avoid or prevent significant or cumulative effect upon the wetland values protected by this Bylaw; and for failure to pay all required fees. It also shall deny any application for permit where it finds no conditions are adequate to protect the wetland values. The Commission shall duly consider any demonstrated hardship on the applicant by reason of denial, as presented at the public hearing.

A permit shall expire three (3) years from the date of issuance. Notwithstanding the above, the Commission, in its discretion, may issue an annual extension not to exceed six (6) years from the original date of issuance; provided that it receives a written request for a renewal at least thirty (30) days prior to the permit's expiration and provided that all work to that date has been done within the scope of the permit.

For good cause, the Commission may revoke or modify a permit issued under this Bylaw. Before revoking or modifying a permit, the Commission must comply with Section 18.04.060 by giving notice to the permit holder, the public, town boards and the abutters and by holding a public hearing.

The Commission, in its discretion, may combine the permit or other action issued under the Bylaw with the Order of Conditions issued under the Wetlands Protection Act.

With respect to an Request for Determination, the Commission, within twenty-one (21) days of the close of the hearing thereon, shall issue its determination in writing stating whether or not the proposed activity or property in question is subject to this Bylaw if the applicant gives written authorization on or before the date specified in the extension.

18.04.100 Modifications

If the applicant proposes to make any changes in the Commission's originally approved plans, the applicant shall submit the amended plans to the Commission. The Commission, in its discretion, if it deems the amendments to the plan significant, may require the filing of a new application for permit. This new application will be treated as a new application requiring a noticed hearing, application fee and, if necessary, a consultant fee.

18.04.110 Registry of Deeds

No work proposed in any application shall be undertaken until the permit issued by the Commission with respect to such work has been recorded in the registry of deeds or, if the land affected thereby be registered land, in the land court section of the registry for the district wherein the land lies and until the permit holder certifies in writing to the Commission that the permit has been so recorded and furnishes the recording data pertaining thereto.

18.04.120 Certificate of Compliance

Upon completion of the project, the applicant shall immediately request in writing a Certificate of Compliance from the Commission. If the activities were completed in accordance with plans stamped by a registered professional architect, landscape architect, civil engineer or land surveyor, a written notice by said professional certifying substantial completion with the plan and setting forth what deviations, if any, exist from the plan shall accompany the request for a Certificate of Compliance.

The Commission, any of its members, or its agent may conduct an inspection to validate the completion. The Commission shall take action on the respect within thirty (30) days of its submission at the Commission's office.

The Commission, in its discretion, may impose conditions on the Certificate of Compliance to assure continued operation and maintenance of permanent measures to prevent or control significant or cumulative effect upon the wetland values protected by this Bylaw.

18.04.130 Regulations

After public notice and hearing(s), the Commission shall promulgate regulations to effectuate the purposes of this Bylaw. Failure by the Commission to promulgate such regulations or a legal declaration of their invalidity by a court of law shall not act to suspend or invalidate this Bylaw.

18.04.140 Enforcement

The Commission and its agents, only after showing proper identification, shall have the authority to enter upon privately owned land for the purpose of inspecting and monitoring property subject to an Request for Determination.

The Commission shall have the authority to enforce this Bylaw, the regulations promulgated hereunder, and the permits issued hereunder by issuing violation notices or administrative orders, and by bringing civil and criminal court actions, including those seeking the imposition of municipal liens.

Upon written request of the Commission, the Board of Selectmen, Town Manager and Town Counsel, may take legal action for enforcement under civil law.

The Board and Officials of the Town shall have authority to assist the Commission in enforcement. Upon written request, the Police Chief or his designee may provide assistance to the Conservation Commission as it relates to court procedure.

For good cause, the Commission may issue a cease and desist order or an enforcement order with or without prior notification to the property owner or applicant. The Conservation Administrator, upon informing the Commission Chair, may generate either or both of these actions which shall remain in effect until the next regularly scheduled meeting of the Commission. The Commission shall give the property owner or applicant notice of the meeting at least forty-eight (48) hours before convening it. At the meeting the Commission shall vote whether or not to continue the action.

The Commission may mandate the installation of temporary control measures if there is any danger of adversely affecting the local resource areas. These measures are to remain in effect and be maintained in place until the Commission allows their removal.

Under conditions of a cease and desist order or an enforcement order, another party may be retained by the Commission to complete the temporary control measures if the property owner or applicant is unable or unwilling to do the work within a reasonable time as stated in the Commission's order, and if there is an immediate hazard to the local resource areas, wetland values protected by this Bylaw, or public safety. The costs associated with this work shall be borne by the property owner or applicant.

18.04.150 Inspection

The Commission, its agents and officers shall have the authority to enter privately owned land for the purpose of performing its duties under this Bylaw, and may make or cause to be made such examinations, surveys or samplings as the Commission deems necessary.

18.04.160 Burden of Proof

The applicant shall have the burden of proving a preponderance of the credible evidence that the work proposed in the application for permit will not have a significant or cumulative effect upon the local resource areas and wetland values protected by this Bylaw. Failure to provide sufficient evidence to the Commission supporting this burden shall be good cause for the Commission to deny a permit, or grant a permit with conditions or to continue the hearing to another date to enable the applicant or others to present additional evidence. However, if the applicant objects

to a continuance, the hearing shall be closed and Commission shall take action on such evidence as is then available.

18.04.170 Relation to the Wetlands Protection Act

This Bylaw is adopted under the Home Rule statutes, independent of the Wetlands Protection Act and regulation promulgated hereunder.

18.04.180 Performance Guarantee

- (1) Bonds or Surety. The Commission may require the applicant to file a surety company performance bond or a deposit of money in an amount determined by the Commission to be sufficient to cover the cost of all or any part of the site alterations specified in the permit and/or shown on the plans approved by the Commission. Such bond or surety, if required to be filed or deposited, shall be approved, as to form and manner of execution by the Town Counsel and as to sureties by the Town Treasurer and shall be contingent upon the completion of such alterations with the time frame of the permit and extension, if granted. Such bond or surety shall remain in effect during an active order of conditions and any extensions granted by the Commission.
- (2) Covenant. The Commission may require the applicant to secure the performance and observance of conditions imposed on the project, by a conservation restriction, easement or other covenant enforceable in a court of law, executed and duly recorded by the owner of record, running with the land to the benefit of the Town and members of the public, whereby the permit conditions shall be performed and observed before any lot may be conveyed other than by mortgage deed.
- (3) Reduction of Bond or Surety. The penal sum of any required bond, or the amount of any deposit held hereunder may, from time to time, be reduced by the Commission and the obligations of the parties thereto released by the Commission in whole or in part.
- (4) Release of Performance Guarantee. Upon completion of site alterations required in the permit, security for the performance of which was given by bond, deposit or covenant, or upon the complete performance of the covenants with respect to the site, the applicant may request and agree on terms of release with the Commission.

If the Commission determines that said alterations have been completed in compliance with the conditions of the permit, it shall release the interest of the Town in such bond and return the bond or the deposit to the person who furnished same or release the covenant, if appropriate.

If the Commission determines that said alterations have not been completed in compliance with the permit, it shall, within forty-five (45) days, specify to the applicant, in writing, the details wherein said alterations fail to comply with the permit.

18.04.190 Appeal

Any person aggrieved by the permit or decision of the Commission, whether or not previously a party to the proceeding, may appeal according to the Massachusetts General Laws.

18.04.200 Amendments

The rules and regulations of the Conservation Commission (as described in Section 18.04.130 of this chapter) may be amended from time to time by a majority vote of the Commission. Prior to taking a vote on an amendment, the Commission shall have held a public hearing on the proposed change(s).

18.04.210 Penalties

Any person who violates any provision of this Bylaw, the regulations promulgated hereunder, or the permits issued hereunder shall be punished by a fine as specified in the Commission's regulations which shall not exceed \$300 for each offense. Each day the violation continues shall constitute a separate offense and each provision of the Bylaw, regulations or permit violated shall constitute a separate offense. Each day the violation alters a local resource area shall constitute a separate offense.

18.04.220 Pre-acquisition violation

Any person who purchases, inherits or otherwise acquires land upon which work has been done in violation of the provisions of this Bylaw or in violation of any permit issued pursuant to this Bylaw and such violation notice is recorded at the registry of deeds or land court, shall forthwith comply with any order of the Commission and restore such land to its condition prior to any violation; provided, however, that no action, civil or criminal, shall be brought against such person if corrective action commences within six (6) months following the date of acquisition of the land by such person or within the time specified in the Commission's order.

APPENDIX C

Pioneer Institute Study of Massachusetts Municipalities

Setbacks from Wetlands

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Issue Overview Many municipalities create limited-use zones within the buffer zone adjacent to the wetlands. Most require a setback from the wetland of undisturbed natural vegetation, often called a zone of “no disturbance,” “no alteration,” “no cut” or “no work.” Beyond the zone of “no disturbance” (or instead of it), there is often a “no build” zone where construction of structures is prohibited, but other activities are allowed, including clearing, landscaping and paving. Several municipalities create concentric zones or several setbacks that vary according to (1) proposed activity (alteration of vegetation, pavement, porches, dwellings), (2) use types (single family, multi-family, commercial), (3) type of wetland (vegetated wetlands, isolated land subject to flooding, vernal pools), (4) site characteristics (groundwater protection overlay, steep land, ground cover, mapped habitat for endangered species) or (5) existing versus new lots.

The state regulations do not establish limited use zones.

Some municipalities enforce limited use zones as a matter of policy, and do not establish the requirements in the bylaw/ordinance or regulations. Some municipalities describe the limited use requirements in the zoning bylaw/ordinance.

Research Coding The answer is coded Yes when limited use zones are established as municipal law – in the wetlands bylaw/ordinance, promulgated regulations, or zoning bylaw/ordinance - not when enforced as a matter of “policy.” The researcher may have missed the relevant provisions in zoning bylaws/ordinances. Although the researcher did not systematically obtain “policies” from the municipalities, the researcher described policies in the database notes when conservation agents listed the policies on surveys or described them in phone interviews. Setback policies were reported both by towns with bylaws and those without. Note that while the research notes often include information on setbacks from vernal pools and land subject to flooding, researchers did not systematically seek this information; setbacks from bordering vegetated wetlands are more consistently entered.

Abington *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes The Town of Abington's wetlands bylaws do not refer to "no disturbance" zones.
In survey received 3/24/04 from Abington: "Yes, nothing within 10' of wetlands."

Acton *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 50 foot no disturbance
75 foot no build

Section 3.2 Wetlands Setbacks for New Activities of the Acton Wetlands Bylaw Regulations lists the setback requirements:
"...(2)50-foot setback of undisturbed natural vegetation (3) 75-foot no-build setback to the edge of the driveways, roadways, and structures (4) 50-foot chemical free area, within which no fertilizers, herbicides, pesticides or other chemical maintenance substances shall be used (5) 100-foot setback for underground storage of gasoline, oil, or other fuels and hazardous materials (6) 100-foot setback of undisturbed natural vegetation to the mean high water line for vernal pools.

The researcher did not find any reference of variances specific to these setbacks. Under Section 1.5 of the Acton Wetlands Bylaw Regulations, variances for any regulation are available, "Strict compliance with these Rules and Regulations may be waived when, in the judgment of the Commission, such action is in the public interest, and is consistent with the intent and purpose of the Bylaw."

(Town of Acton Wetland Protection Bylaw Rules and Regulations, Adopted 2004)

Amesbury *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No The researcher did not find any reference to limited use zones in the wetlands by-laws.

Andover *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 25 foot no disturbance (50 feet in Haggett Watershed)
50 foot no build (75 feet in Haggett's Watershed)

Section 7.6(b) of the Andover Wetlands Regulations establishes a 25 foot no touch buffer strip around all wetland resource areas (50 feet within Haggett Watershed) and a 50 foot no build (75 feet in Haggett Watershed):

"Based upon experience to date with projects within the buffer zone, the Conservation Commission shall presume that work within the buffer zone will result in alteration of the resource area. This presumption is rebuttable and may be overcome upon a clear showing that the nature of the proposed work, special design measures, construction controls, or site conditions will prevent alteration of the resource areas. The Conservation Commission has established the following buffer strip and limit of structures

1. Buffer Strip: There shall be no removal of vegetation, excavation, filling, or placement of any building or structure (except as permitted with an Order of Conditions for a limited project, wetland crossing or water dependant structure such as a dock, bridge, vegetative treatment swale or other earthen stormwater treatment devices necessary for stormwater management) for a minimum of 25 feet from any bank, bordering vegetated wetland, isolated vegetated wetland, marsh, wet meadow, bog, swamp, vernal pool, reservoir, pond, creek, river or stream, or any land under said waters. The activities listed above shall not be allowed within a minimum of 50 feet of the above listed resource areas located within the Haggetts Pond Watershed Protection Overlay District. There shall be no piling of natural material such as leaves, brush, grass clippings and manure or storage or manmade objects or materials such as, but not limited to, boats, vehicles, trash or its container, scrap metal, garbage etc. within 25 feet of the edge of the above listed wetland resources.
2. Building Within 50 Feet: There shall be no structures for human habitation ("building") placed within 50 feet of any bank, bordering vegetated wetland, isolated vegetated wetland, marsh, wet meadow, bog, swamp, vernal pool, reservoir, pond, creek, river or stream, or any land under said waters, or within 75 feet of resource areas located within Haggetts Pond Watershed Protection Overlay District, except as permitted with an Order of Conditions for a water dependant structure or if no practical alternative is determined to be available after completion of an alternatives analysis."

Arlington *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 25 foot no disturbance
(vegetated wetland)
50 foot no disturbance
(lands subject to flooding, land under water bodies)

Wetlands Protection Regulations Town of Arlington, (Revised 2001),

Section 17.

D. No work shall be performed within 25 feet of a vegetated wetland that abuts on an estimated habitat area as designated on the most current map prepared by the Massachusetts Natural Heritage and Endangered Species Program without a request for a variance and a variance granted by the Commission, and said variance request shall receive the highest level of scrutiny.

Section 18

E. No work shall be performed within 50 feet of land under water bodies that abuts an estimated habitat area as designated on the most current map

prepared by the Massachusetts Natural Heritage and Endangered Species Program unless the Applicant can demonstrate by a preponderance of credible evidence that the work will not have any short term or long term adverse effect on the resource area values protected by the Bylaw.

Section 19.

E. No work shall be performed within 50 feet of land subject to flooding that abuts and estimated habitat area as designated on the most current map prepared by the Massachusetts Natural Heritage and Endangered Species Program without a request for a variance and a variance granted by the Commission, and said variance request shall receive the highest level of scrutiny.

Ashland *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 25 foot no disturbance

Town of Ashland Wetlands Protection Bylaw (Ashland Bylaws Chapter 280-1) states :

"No work or disturbance, including but not limited to grading, vegetation removal, or disturbance, shall be permitted within twenty-five (25) feet of any Bordering Vegetated Wetland or Bank area, unless the applicant provides information and evidence deemed satisfactory to the Commission that the work to be performed sufficiently protects or enhances wetland interests. This provision shall not apply to previously existing docks, piers, or floats or to pre-existing agricultural uses."

Attleboro *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 25 foot - no disturbance

"The Commission therefore shall require that the applicant maintain a 25-foot wide continuous, undisturbed vegetative buffer measures from and parallel to the resource area boundary, as an absolute minimum." From the City of Attleboro Wetlands Protection Ordinance. Section 18-1.8 (Adopted 2001).

From the City of Attleboro Wetlands Rules and Regulations:

4.9 WETLANDS PROTECTION ZONE (WPZ)

The land area located within 25 feet of the Wetland Resource Areas identified in Section 1.3 (a) (b) (c) and (d) of these regulations is also a protected Wetland Resource Area pursuant to Sections 18-1.2 and 18-1.8 of the Ordinance. This area shall be known as the Wetlands Protection Zone ("WPZ"). As stated in the Section 18-1.8 of the Ordinance, the WPZ is "presumed important to the protection of these resources because activities undertaken in close proximity to resource areas have a high likelihood of adverse impact Attleboro Conservation Commission Page 18 of 28

Proposed Wetlands Protection Rules and Regulations Adopted November 17, 2004

upon the wetland or other resource, either immediately, as a consequence of construction, or over time, as a consequence of daily operation or existence of the activities".

Important functions of the WPZ include, but are not limited to: Protecting the Wetland Resource Area it surrounds, i.e. by shading; filtering stormwater runoff; reducing noise and wind; and reducing the inflow of pollutants such as salts, pesticides, herbicides and fertilizers; providing wildlife habitat, including food, shelter, nesting, and migratory areas; providing traversable recreation areas; and allowing for wetland plant growth and wetland expansion.

The Commission therefore may require that the applicant maintain a strip of continuous, undisturbed vegetative cover in part or all of the WPZ and set other conditions on this area, unless the applicant provides evidence deemed credible and sufficient by the Commission that the area or part of it may be disturbed without harm to the values protected by the Ordinance.

As stated in Section 18-1.8 of the Ordinance, the Commission may allow the WPZ to be utilized in a passive manner. As such, in some circumstances activities — when properly conditioned — may be acceptable in WPZ areas. Under other circumstances even minimal adjacent disturbance may have serious harmful effects on Wetland Resource Area values and functions. When the presumption of significance is questioned the actual determination of impact must be made on a project and site-specific basis. In this respect the actual impact of proposed work or activities within the WPZ on wetland values and functions can often be reduced substantially, and thus made permissible, when appropriate conditions are imposed.

The Ordinance gives the Conservation Commission broad discretion to permit, condition, and prohibit work within the WPZ as the specific situation warrants. Therefore the Commission shall consider proposals for

work in the WPZ in terms of four broad forms of disturbance. This approach is intended to allow flexibility for property use while maintaining adequate levels of resource protection.

4.9.1 No Disturbance

The Commission may find that the specific characteristics of the WPZ on a particular site are so important to the protection of the Wetland Resource Area values that that virtually no activities or work, other than passive passage, will be permitted. In these cases, no vegetation should be disturbed, leaf litter and debris should remain in place, etc., and the WPZ should remain unchanged from its pre-project state.

4.9.2 Temporary Disturbance

The Commission may find that the specific characteristics of the WPZ on a particular site are such that a temporary disturbance for a limited period of time may be permitted, such as for regrading or travel by construction machinery. Once the activity is completed, however, the area would be allowed to return to natural vegetation and pre-disturbance functions. Any subsequent disturbance or activity would require additional filings and review by the Commission. In these instances, the Commission shall establish specific time frames and conditions for allowing temporary disturbances, as well as setting criteria for assessing the successful return of the WPZ to natural functions.

4.9.3 Limited Disturbance

The Commission may find that the specific characteristics of the WPZ on a particular site are such that a limited set of activities and work may be permitted in perpetuity. For example understory clearing of vegetation may be allowed, but no clearing of overstory and no conversion of ground cover to lawn would be allowed. Limited (sustainable) harvesting of wood, composting of brush, and storing firewood are other examples of limited activities that might be allowed.

4.9.4 Permanent Disturbance

The Commission may find that the specific characteristics of the WPZ on a particular site are such that permanent disturbances are permitted. Dwellings, parking areas, driveways, decks, and lawns in the WPZ represent permanent disturbance areas. Within the context of permanent disturbance within the WPZ, the Commission may set specific conditions prohibiting or restricting those forms of work and activities deemed potentially harmful to resource area values, such as the use of herbicides and pesticides, the use of interceptor drains, swimming pool discharge or filter backwash systems, or the installation of in-ground sprinkler systems for irrigation.

4.9.5 Permanent Immovable Barriers and Enhancement

The Commission may, at its discretion, require the installation of a permanent immovable barrier(s) (splitrail fence, large rocks, stonewalls, shrub barriers, etc.) along the WPZ boundary or the line within the WPZ where the limit of work or disturbance is approved. It has been the Commission's experience that permanent immovable barriers are an effective visual reference, and serve to help avoid 'lawn creep' by future homeowners, who may not be as aware of the resource areas as the original applicant. Enhancements, such as the removal of invasive/exotic plant species or the planting of native vegetation may be required as compensation for authorized disturbances within the WPZ at the discretion of the Commission.

Auburn *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No The researcher did not find any reference to specific limited use zones in the wetland bylaws. On 10/25/04, the researcher spoke with the conservation administrator, who said there are no policies of limited use/ no cut zones.

Avon *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No Answer based on 6/28/04 phone conversation with Gene Guilbault, Avon Conservation Officer -- he stated that it depends on the circumstances, but right now there is no zone delineated such as a 25 ft buffer.

The researcher found no reference to limited use zones in the wetlands bylaws.

Bedford

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

25 foot no disturbance

Town of Bedford Conservation Commission Regulations Pursuant to the Bedford Wetlands Protection Bylaw, Section 2.2.2

2.2.2 Specific Standards

2.2.2.1 Buffer Zone

Where an activity is proposed within the Buffer Zone, the Commission shall presume that the activity has a high likelihood of altering any resource area adjacent to the Buffer Zone unless the proponent proves by a preponderance of the credible evidence that either:

- a) the Buffer Zone does not play a role in the protection of any of the wetland values of the Bylaw; or
 - b) the activity shall occur in such a manner that any potential adverse environmental impacts on any of the wetland values are avoided.
- Notwithstanding any of the above, the placement of impervious surface in the Buffer Zone is limited to the greater of:

- a) 25% of the Buffer Zone; or
- b) the percentage of the Buffer Zone covered by previously placed impervious surface due to activity allowed at the time it was performed.

2.2.2.2 Buffer Strip

Where an activity is proposed within the Buffer Zone to a wetland, vernal pool, bank or beach, or isolated land subject to flooding, the Commission shall require that a continuous Buffer Strip (at least 25 feet wide) of undisturbed, natural vegetation be maintained between the proposed activity and the resource area(s). The Commission may require that a buffer strip be created where non currently exists, due to previous activities.

In designing a project to meet this performance standard, the applicant shall take into account not only proposed construction activity, but also realistic future use of the site....

When partial encroachment of proposed structures into the 25-foot "yard" setback is unavoidable, the applicant may mitigate the encroachment by increasing the Buffer Strip area by an amount equal to or greater than the encroachment into the "yard". The following guidelines are offered: (1) The encroachment should not exceed 10% of the total recommended "yard" setback for the lot; and (2) The encroachment should not exceed one quarter of the recommended width of the total setback from the resource area.

It is the applicants burden to demonstrate to the Commission's satisfaction that realistic future use of the site is not likely to result in intrusion into, or alteration of, the Buffer Strip. The Commission may require the applicant to submit a use plan and narrative as part of that demonstration. At the Commission's request, the applicant shall demonstrate to the Commission's satisfaction that work or activities proposed at the edge of the Buffer Strip are necessary and that reasonable alternatives, including reducing the scale and scope of the project or adjusting other setbacks, do not exist.

Beverly

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

25 foot no disturbance

100 foot no disturbance (vernal pools)

The City of Beverly Wetlands Protection Regulations (2003) create a 25 Foot No-Disturbance Zone defined as "that portion of the Buffer Zone which extends twenty-five (25) feet from the edge of those wetland resource areas identified in Section I(C) (1,3,4,5); however, it is possible that these resource areas will overlap in some instances (e.g., Riverfront Area and Land Subject to Flooding). Disturbance of any kind is prohibited within this Zone including but not limited to grading, landscaping, vegetation removal, pruning, cutting, filling, excavation, roadway construction and /or driveway construction."

There is also a 100 Foot No-Disturbance Zone defined as, "the land area that extends one hundred (100) feet from the edge of any Vernal Pool that is located in an upland area or, in the case of a wetland resource area that encompasses the pool (Section 1(C)(1,3,4,5), within one hundred (100) feet from the edge of the said wetland resource area. Disturbance of any kind is prohibited within this Zone including but not limited to grading, landscaping, vegetation removal, pruning, cutting, filling, excavating, roadway construction and/or driveway construction. The extent and location of this No-Disturbance Zone is subject to change based on the results of a biological and/or habitat evaluation, which may be required to determine the migratory pathways and other important habitat usage of Vernal Pool breeders."

The City of Beverly Wetlands Protection Regulations, Section IV(B)(1) and (C)(1) (2003, as amended) provide for waiver in both the 100 Foot and the 25 Foot No-Disturbance Zones. The regulation lists the procedures to obtain waiver as follows:

100-Foot No-Disturbance Zone For Vernal Pools

1. Waiver(s):

The Commission may grant a partial waiver from this performance standard for the alteration of the 100-foot No-Disturbance Zone in situations where there are no practicable alternatives that provide for less impacts to the resource area values. The applicant is responsible for conducting an alternatives analysis to show that there are no feasible alternatives. The Commission may grant a partial waiver of the 100-foot No-Disturbance Zone performance standard and impose such additional or substituted mitigation requirements as it determines necessary, upon a clear and convincing showing by the

applicant that:

- a) There are no practicable alternatives that would allow the project to proceed in full compliance with this regulation; and
- b) The project, or its natural and consequential effects, will have no adverse effects on any of the interests protected by the Ordinance. It shall be the responsibility of the applicant to provide the Commission with any information that the Commission requests in order for it to determine that no adverse effects will occur. The failure of the applicant to furnish information so requested shall result in the denial of a request for a waiver pursuant to this subsection; and
- c) The project will improve the natural capacity of a resource area to protect the interests identified in the Ordinance, provided any adverse effects on any such interests are minimized by carefully considered and environmentally sensitive project design.

25-Foot No-Disturbance Zone

1. Waiver(s):

The Commission may grant a partial waiver from this performance standard for the alteration of a part of the 25-Foot No-Disturbance Zone in situations where there are no feasible alternatives that provide for fewer impacts to the resource area values. The applicant is responsible for conducting an alternatives analysis to show that there are no feasible alternatives. The Commission may grant a waiver of the 25-Foot No-Disturbance Zone performance standard and impose such additional or substituted mitigation requirements as it determines are necessary, upon a clear and convincing showing by the applicant that:

- a) There are no practicable alternatives that would allow the project to proceed in full compliance with these regulations; and
- b) The project, or its natural and consequential effects, will have no adverse effects on any of the interests protected by the Ordinance. It shall be the responsibility of the applicant to provide the Commission with any information that the Commission requests in order for it to determine that no adverse effects will occur. The failure of the applicant to furnish information that has been so requested shall result in the denial of a request for a waiver pursuant to this subsection; and
- c) The project will improve the natural capacity of a resource area to protect the interests identified in the Ordinance, provided any adverse effects on any such interests are minimized by carefully considered and environmentally sensitive project design.

Billerica

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

50 foot no build
25 foot no disturbance

There is a 50 foot no-build zone from any resource area, and a 25 foot no-disturbance zone from any resource areas.

The commission is empowered by Article XXII, Section 5.2 of the Billerica town bylaws to create such zones. It reads: "By regulation, the Commission may require within a buffer zone certain setbacks and/or an area of natural vegetation of sufficient width and vegetative community type to assure protection of the wetlands resource area and mitigation of proposed activities. Nothing herein shall preclude the Commission from establishing a no-alteration zone on a case-by-case basis."

The regulations are more specific.

From Section 3.03 C(3) No Alteration Zone,

"The Commission shall require, when activity is proposed within the wetland buffer resource area (Buffer Zone), a continuous strip of at least twenty-five feet (25') in width of undisturbed naturally occurring vegetation between the proposed activity and the adjacent wetland resource area. The Commission may consider a variance to this provision where there is proposed alteration to an existing structure or a temporary alteration with restoration. The Commission may require the creation of such no alteration zone where no wetland buffer resource area (Buffer Zone) currently exists because of previous activities that have altered the wetland resource area.

a. In designing a project to meet this performance standard, the applicant shall take into account not only proposed construction activity, but also realistic future use of the site. The burden is on the applicant to demonstrate to the Commission that realistic future use of the site is not likely to result in intrusion into, or alteration of, the no alteration zone. The Commission may require the applicant to submit a use plan and narrative as part of that demonstration.

b. On lots that have been granted non-conforming protection under the State of Billerica zoning laws and where there is a proposed alteration to an existing structure, the Commission shall review each application on a case by case basis.

c. The applicant shall expect the Commission to require new construction on a lot not previously developed to be sited at least fifty feet (50') from any wetland resource area.

d. The applicant shall expect the Commission to require a no alteration zone significantly greater than twenty-five feet (25') where the slopes are steeper than 2:1 and where there is no retaining wall."

(Billerica Conservation Commission Wetlands Protection Regulations, Adopted 2003)

The regulations do not mention variance provisions for new construction.

Blackstone

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes 100 foot no build

From Section 119-12. Denial of permission and setback regulation. [Added 4-29-1991 by ATM, Art 41],
"B. Every proposed building shall have a one-hundred-foot setback from any wetlands, bank, marsh, wet meadows, bog, swamp, creek, river, stream, ford, lake or one-hundred-year floodplain. One request for a variance of the setback rules shall require an affirmative vote of at least four members of the Conservation Commission present and voting. [added 4-29-1991 by ATM, Art. 41; amended 5-30-2000 by ATM, Art. 13]."

In addition, from Section 119-11. Order of conditions,
"C. Per order of conditions, any new subdivision which proposes construction bordering a wetland and is determined to negatively impact the wetland due to alteration or runoff will be required to provide a construction setback amounting to between five percent (5%) and ten percent (10%) of the subdivision land. This land will border the wetland and will serve to protect the wetland from negative impact. [Amended by 4-25-1994 ATM, Art. 29]"

(Blackstone Code Chapter 119, Wetlands, Adopted 1986)

Bolton

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes 25 foot no disturbance

The conservation agent (11/8/04) said there is a 25 foot no disturbance zone, but that there is some exception to this when establishing a crossing to uplands. The agent also said that the zoning bylaws give special permits for a wider variety of cases in addition to crossings. This inconsistency is in the beginning phases of being rectified -- the agent was unsure whether that meant fewer cases eligible for special permitting under the zoning bylaw or more cases eligible for special permitting under the wetlands bylaw.

"Unless excepted in Section 1.18.3 herein or pursuant to a wetland crossing permit, no person shall commence to remove, fill, dredge, build upon, degrade, pollute, discharge into, or otherwise alter the following resource areas or land within 25 feet of the following: any freshwater wetlands; marshes; wet meadows; bogs; swamps; vernal pool habitat, including but not limited to state certified vernal pools; banks; fresh water seeps; reservoirs; lakes; rivers; streams; creeks; beaches; lands under water bodies; lands subject to flooding or inundation by ground water or surface water (collectively the resource areas). This 25-foot prohibition, however, shall not apply to crossings essential to access upland areas. Said resource areas shall be protected whether or not they border surface waters.

Except as expressly permitted by the Conservation Commission or as provided in this Bylaw no person shall commence to remove, fill, dredge, build upon, degrade, pollute, discharge into, or otherwise alter either a resource area, as described above, or land within 100 feet of the aforesaid resource areas." From the Town of Bolton Wetlands Bylaws, Section 1.18.2.

"The presumption is rebuttal and may be overcome by a clear showing that the resource area or land within 100 feet does not play a role in the protection of one or more of these interests [i.e. the wetlands values]." From the Town of Bolton Wetlands Protection Bylaw, Section 1.18.2.

Boxborough

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes 50 foot no disturbance

Applicants must demonstrate that they can maintain wetlands values, improve the condition of the existing resource, or that the effects of the proposed activity will be minor before a waiver will be granted for work 50 feet from a wetland. Lawns, decks & porches without a foundation, as well as dry wells for runoff are permitted 75 ft from a wetland.

Table 1. Summary of Activities Allowed in a Wetland Resource Area

Activity	Wetland Resource Area	Conservation Commission Exception
Roads & Driveways	Not Allowed	Yes*
Parking Lots	Not Allowed	

Detention Basins	Not Allowed	
Buildings & Structures	Not Allowed	
Decks & Porches	Not Allowed	
Swimming Pools	Not Allowed	
Fuel Storage	Not Allowed	
Hazardous Materials	Not Allowed	
Dumpsters	Not Allowed	
Wells & Water Lines	Not Allowed	Yes **
Sanitary West Systems	Not Allowed	
Dry Wells	Not Allowed	
Utilities	Not Allowed	Yes*

Activity	Distance into Adjacent Land Resource Area	Conservation Commission Exception
Roads & Driveways	Not Allowed	Yes*
Parking Lots	Not Allowed	
Detention Basins	Not Allowed	
Buildings & Structures	Not Allowed	
Decks & Porches	Outer 25 ft	
Swimming Pools	Not Allowed	
Fuel Storage	Not Allowed	
Hazardous Materials	Not Allowed	
Dumpsters	Not Allowed	
Wells & Water Lines	Not Allowed	Yes **
Sanitary West Systems	Not Allowed	Yes **
Dry Wells	Outer 25 ft	
Utilities	Not Allowed	Yes*
Lawns	Outer 25 ft	
Wetlands vegetation disturbance	Outer 50 ft	
Stump Pits	Not Allowed	

*The Commission may allow an exception under limited project provision of State Wetland Law.

**The Commission may allow if applicant can show by preponderance of credible evidence that the activity will not harm wetlands interests and that there is not a suitable alternative location.

From Tables in Town of Boxborough Regulations for the Wetlands Bylaw (Adopted 11/14/01).

Boxford

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

- 25 foot no disturbance
- 75 foot no build
- 100 foot no disturbance (vernal pools)

In Section 375-98 Buffer Zones there is table titled "Minimum Setback Distance Chart (in feet)". This table is very detailed for various structures and types of resource areas. Essentially, around vernal pools there is a 100 foot no alteration zone. For "other wetland resource areas", there is a 25 foot no alteration zone and 75 foot no build zone ("structures requiring a building permit).

From the same section, part D. Cutting of vegetation,

"(1) No-disturb zone

(a) There shall be a no-disturb zone with a minimum depth of twenty-five (25) feet measured horizontally from the border of the protected wetland resource area (with the exception of riverfront areas, which do not have buffer zones, vernal pools, which have a 100 foot no-disturb zone, and Hovey's, Baldpate, and Stiles Ponds, which have a minimum of 100 foot no-disturb zones). The Commission, at its sole discretion, may require a no-disturb zone of greater than the minimum where there are site specific conditions which would if altered result in resource area degradation."

There are variance provisions.

375.98 B(1)-(5) reads in part:

"B.Presumption.

(1) Based on experience to-date with projects in the buffer zone, the Commission presumes that alterations listed in the Minimum Setback Distance Chart below and closer than the stated setbacks, will result in alteration of the wetland resource area. Therefore, all proposed buffer zone alterations must

comply with the stated minimum setbacks. These regulations consist of more than a single chart, and greater setbacks than the stated minimums can be and often are required for a project to comply with all sections of these regulations. For this reason, permit applicants are strongly encouraged to review all regulations contained herein prior to designing a project.

(2) This presumption is rebuttable and may be overcome only for the conversion of lawn or other significantly altered land to a structure requiring a building permit when said structure is accessory to an existing single family dwelling legally in existence as of May 19, 1994 (the original issue date of these Regulations), or when a wetlands permit application was filed for said single family dwelling on or before May 19, 1994; and only upon a clear showing by the applicant that the work proposed within the buffer zone, closer than the tabulated minimum setback distances, will not result in the alteration of any wetland resource area. The proposed design shall comply as much as possible with the minimum setback distances specified in the Minimum Setback Distance Chart.

(3) In addition, an applicant attempting to overcome this presumption shall have the burden of demonstrating by a preponderance of the credible evidence that construction and continued use of said accessory structure will not have a significant or cumulative adverse effect upon the ability of the buffer zone to protect all applicable wetland resource area values identified in § 376-1B(1) through (13) of these Regulations. No alteration shall be allowed within a naturally vegetated no-disturb zone, except as specified in § 375-98D(1).

(4) The Commission may place additional conditions on the project to provide impact mitigation for locating accessory structures closer than the minimum setback distances (e.g. by requiring applicants to establish no-disturb zones adjacent to wetland resource areas, by requiring plantings of indigenous shrubs and/or trees in the buffer zone, or by restoring altered buffer zone and/or wetland resource areas to a natural condition). Accessory structures include but are not necessarily limited to additions, decks, porches, sheds, garages, patios, gazebos, and pools.

(5) In the event that this presumption is deemed by the Commission to have been overcome, the Commission shall make a written determination to this effect in the "Findings" section of the order of conditions, setting forth its grounds."

(Town of Boxford Wetlands Protection Bylaw Regulations, Adopted 1994, Amended 2004)

Braintree *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 25 foot no disturbance

Braintree Wetlands Bylaw Section VIII (Determinations, Permits and Conditions, C (Buffer Zone):

C. BUFFER ZONE

Lands within the 100 foot buffer zone are presumed important to the protection of wetland areas because activities undertaken in close proximity to said areas have a high likelihood of adverse impacts upon them as a consequence of construction or as a consequence of daily operation or existence of said activities. Impacts may include, without limitation, erosion, siltation, loss of groundwater recharge, poor water quality and loss of wildlife habitat. The Commission therefore shall require an applicant to maintain, at a minimum, a continuous undisturbed vegetative strip abutting a wetland 25 feet in width and may set other conditions as it deems necessary, unless the applicant provides evidence deemed sufficient by the Commission that the buffer zone may be disturbed without harm to the values protected by the Bylaw.

According to Peter Lopolla (7/6/04), Director of Planning and Conservation, Braintree's Conservation Commission requires 25-feet of "no disturbance" around wetlands. He said: "there is always escape language built in. 25 feet shall remain undisturbed, unless the Commission determines it is impractical to do for some reason." He noted that for some properties in the zone where lot sizes may be small the 25-foot no disturbance zone could cover the whole lot. In such cases, they would allow development.

Bridgewater *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No At present there is no mention of no-disturbance zone in the bylaw, but the researcher was told that a de-facto 25 foot no-disturbance zone is going to be incorporated into the bylaws within the year.
(10/13/04)

Burlington *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No Randy Newell, Assistant Administrator, said that Burlington encourages developers to respect a 20-foot no disturb zone. This is an informal policy, but it will likely be in the next iteration of the bylaw or regulations.

Canton *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 30 foot no disturbance

Effective July 18, 1991
Town of Canton Conservation Commission
Wetland Protection Bylaw Regulation
C.C 9 1-1: Wetland Buffer Zone Regulation

2. Prohibition:

No activity, other than the maintenance of an already existing structure, which will result in the building within or upon, removing, filling, or altering of land within the thirty (30) feet of a bordering vegetated wetland or an inland bank shall be permitted by the Conservation Commission, except for any activity which is allowed under the variance provision of this regulation. Bordering vegetated wetland and bank are deemed to be as defined in Massachusetts General Laws, Chapter 131, Section 40 and Massachusetts Regulation 310 CMR 10.00.

3. Variance

The Conservation Commission may, in its discretion, grant variances from the operation of this regulation. Such variances are intended to be granted only in rare and unusual cases, and may be granted only for the following reasons and upon the following conditions:

(a) The conservation commission may grant a variance from this regulation upon a clear and convincing showing by the applicant that any proposed work, or its natural, consequential, and cumulative impacts and effects will not have any adverse effect upon any wetland values protected by the Bylaw. It shall be the responsibility of the applicant to provide the Conservation Commission with any and all information which the Commission may in writing request in order to enable the Commission to ascertain such adverse affects, and the failure of the applicant to furnish any information which has been so requested shall result in the denial of a request for a variance pursuant to this regulation.

(b) The Conservation Commission may grant a variance from this regulation when it is necessary to avoid so restricting the use of the property as to constitute an unconstitutional taking without compensation. If an applicant for a variance pursuant to this regulation is received by the Conservation Commission, the Commission may request an opinion from Town Counsel as to whether the application of this regulation to a particular case will result in such a taking without compensation.

Carlisle *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No Sylvia Willard, Carlisle conservation agent, said (7/30/04) that the bylaws do not establish no-build/no-disturb zones. The conservation commission works with developers to try to keep foundations from being built within 25 feet of any wetland. Ms. Willard noted that this is an informal policy to get developers in negotiations with the ConCom to make adjustments to their building plans.

Carver *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes No reference in the Carver wetlands bylaw to limited use zones.

Survey received from Carver on 5/3/05 marks:

"Yes - need a variance within 65 feet"

Chelmsford

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

25 foot no pavement
50 foot no build on a) lots over 40,000 square feet or b) parking lots with 10 or more spaces

Trill Levine, Chelmsford Conservation Agent, (9/7/04) said that the Chelmsford Conservation Commission enforces a 25 foot no disturb zone around resource areas.

From section 187-4. Limitations on construction, "A. The construction of any building, as defined herein, on any lot having an area of 40,000 square feet or more or any parking lot containing 10 or more parking spaces shall be prohibited within 50 feet of any resource area. The Conservation Commission may, at its discretion, exempt a shed, playhouse or other structure from this definition, provided that is built on footings requiring no more than four square feet cumulative ground disturbance and has a footprint no larger than 144 square feet... D.The Commission may waive the fifty-foot construction prohibition contained herein where the Commission specifically finds that literal enforcement of the prohibition would involve substantial hardship, financial or otherwise, to an applicant and that desirable relief may be granted without substantial detriment to the public good and without nullifying or substantially derogating from the intent or purpose of this chapter [Amended 10-21-1999 ATM by Art. 48] E. The Commission shall not allow any impervious surface within 25 feet of any resource area. The Commission may waive this requirement if it specifically finds that the interests of this chapter are protected. [Added 3-27-2000 STM by Art.4]"

(Chelmsford Conservation Commission Wetlands Bylaw and Regulations)

Cohasset

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

50 foot no disturbance

Researcher spoke with Nancy Noonan, Cohasset Conservation Commission Secretary, on 8/20/04. She stated that there is a 50-foot no disturbance zone around wetlands resource areas, with variances available.

From Section 27. Buffer Zones,
"A. 100' Buffer Zone

The commission may find that activities within the One Hundred Foot (100') Buffer Zone are significant to protection of the Resource Area and, therefore, may regulate activities within One Hundred Feet (100') of the Resource Area. The One Hundred Foot Buffer Zone is comprised of the Fifty Foot (50') Inner Buffer Zone and the Fifty Foot (50') Outer Buffer Zone.

(1)Inner Buffer Zones (RBA)

Inner Buffer Zones (RBA) (Consists of not less than 50') serve a number of important functions in relation to protection of Resource Areas.... There will be no alterations in the 50' Inner Buffer Zone except as necessary to access a crossing over a Resource Area if such crossing is permitted pursuant to Section 32(B) and unless a variance is issued by the Conservation Commission.

If the RBA is already disturbed the Conservation Commission may require that it be revegetated with indigenous vegetative species of habitat value.

Notwithstanding the above, the Conservation Commission may grant a waiver or variance only upon a clear showing that the proposed activity will have no adverse impact on the Resource Area and the protected interests."

(Cohasset Wetland Regulations, Adopted 2001)

Danvers

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

25 foot no disturbance
35 foot no build

The Town of Danvers Wetlands By-law Regulations, Section 7.01(1)(1999, Revised 2003), addresses no-build and no-disturbance zones as follows:
"When proposing alterations of land within 100 feet of a wetland, the applicant must overcome a strong presumption of adverse impact on the adjacent wetlands and their functions and values. The Commission will require a 25-foot no-disturbance zone and a 35-foot no construct zone extending from all wetland resource areas except for riverfront area. No activity is allowed in the no-disturbance zone. Building construction of any kind is prohibited in the no-building zone. This includes, but is not limited to, home construction, porches, decks, additions and sheds."

Alter is defined in the Town of Danvers Wetlands By-law Regulations, Section 1.04 (1999, Revised 2003), as: The term "alter" shall include, without limitation, the following actions, when undertaken in resource areas subject to this By-Law:

- a. removal, excavation or dredging of soil, sand, gravel, or aggregate materials of any kind;
- b. changing of pre-existing drainage characteristics, flushing characteristics, salinity distribution, sedimentation patterns, flow patterns, or flood retention characteristics;
- c. drainage or other disturbance of water level or water table;
- d. dumping, discharging or filling with any material which may degrade water quality;
- e. placing of fill or removal of material which would change elevation;
- f. driving of piles, erection of buildings or structures of any kind;
- g. placing of obstructions or objects in water or waterways;
- h. destruction of or injury to plant life including cutting of trees or their branches or roots; (with the exception of those activities allowed in agricultural use);
- i. changing water temperature, biochemical oxygen demand or other physical or chemical characteristics of water;
- j. any activities, changes or other work which pollute any body of water or groundwater."

The regulations do not specifically address variances to the no-build, no-disturbance zones, but they do include provisions for variances generally. According to the Town of Danvers Wetlands By-law Regulations, Section 2.01(1999, Revised 2003), variances are allowed in the following situations:

(1) The Commission may, in its discretion, grant variances from the operation of one or more of these regulations pursuant to this Section. Such variances are intended to be granted only in rare and unusual cases, and shall be granted only in accordance with the provisions of this section.

(2) A variance may be granted only for the following reasons and upon the following conditions:

(a) The Commission may grant a variance from these regulations upon a clear and convincing showing by the applicant that any proposed work, or its natural and consequential impacts and effects, will not have any adverse effect upon any of the interests protected in the By-Law. It shall be the responsibility of the applicant to provide the Commission with any and all information which the Commission may, in writing, request in order to enable the Commission to ascertain such adverse effects, and the failure of the applicant to furnish any information which has been so requested shall result in the denial of a request for a variance pursuant to this subsection.

(b) The Commission may grant a variance from these regulations when it is necessary to avoid so restricting the use of the property as to constitute an unconstitutional taking without compensation. If an application for a variance pursuant to the subsection is received by the Commission, the Commission may request an opinion from Town Counsel as to whether the application of these regulations to a particular case will result in such a taking without compensation.

Dedham

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

30 foot no disturbance
(single family dwelling)
40 foot no disturbance
(multi-units/subdivisions)
50 foot no disturbance
(pavement/parking lots)

In Section 16. Buffer Zone Regulations, the town outlines Undisturbed Buffer Area (UBA) for certain uses and structures on lands abutting a resource area. The UBA is defined as the "required minimum depth of the Undisturbed Buffer from the edge of the Resource Area." There are no references to variances. Table 4 (titled "Values to be Utilized in Calculation of UBA") lists then minimum UBA for certain structures. For a Single Family Dwelling (SFD) and accessories the minimum UBA is 30 feet. For Commercial/Retail/Industrial/Multi-Unit Residential Building/New Subdivisions the minimum UBA is 40 feet. For Paved Parking Lots and Access Ways the minimum UBA is 50 feet.

In addition, same section, "e.) No work shall be conducted within the Undisturbed Buffer Area with the exception of removal of debris or other maintenance/restoration work or as instructed or approved by the Commission. Such exceptions may be granted for planting and landscaping within this area.

1. No trees over 12 inches in caliper at a height 3 feet above the existing ground shall be cut within the UBA for the construction of drainage or stormwater management facilities located within the UBA. No proposed grading within the UBA shall have an adverse impact on such areas.
2. With the exception of a discharge structure/channel, no grading associated with a stormwater management or drainage basin shall be located with 20 feet of the resource area which the UBA borders."

(Conservation Commission Rules and Regulations, Adopted 1996, Amended 2002)

Dighton

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

50 foot no build
25 foot no disturbance

From Section VII, Setbacks,

B. "No dwelling or structure shall be built less than 50 feet from the outer edge of any wetland." and

C. "A 25-foot minimum undisturbed vegetated buffer zone will be required to protect wetlands and wildlife."

(Dighton Regulations, By-Law and Policies)

The researcher did not find any reference to variances.

Douglas

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

From policy #1, "[w]etland protection requires that certain limits not be exceeded if the resource is to be preserved and therefore a fifty (50) foot no build zone will be maintained. Where the wetland is actually a river or stream a one hundred (100) foot no build zone will be maintained."

(Conservation Commission Town of Douglas Policy, Adopted 2000, Amended 2003)

The researcher did not find any reference to variance provisions.

Dover

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

GW-1 and WP Steep (structure setback: 50 feet, no disturbance: 30 feet)
GW-1 and WP Shallow (structure setback: 40 feet, no disturbance: 25 feet)
GW-2 Steep (structure setback: 40 feet, no disturbance: 25 feet)
GW-2 Shallow (structure setback: 30 feet, no disturbance: 25 feet)

The Rules and Regulations of the Dover Wetlands Bylaw, Section 263-5(J)(2), establish setback requirements from the wetlands resource area for work within the buffer zone.

"Setbacks. This chapter presumes that work in close proximity to a Vegetated Wetland, Bank or Vernal Pool has a high likelihood of causing direct or indirect alterations to those resource areas. Therefore, any project proposing work in the Buffer Zone must maintain certain setbacks from the resource areas. These setbacks, summarized in Table 3, include both structure setbacks and disturbance setbacks and are dependent upon the Groundwater Protection District in which the site is located and whether it is located on a steep or shallow slope. In the event that the applicant can demonstrate that no reasonable alternative exists and proposes to take all necessary measures to prevent both short- and long-term impacts to the wetland, the Commission may, at its discretion, modify or waive this provision. The terms "Groundwater Protection District," "steep slope," "shallow slope," "structure" and "disturbance" are defined within § 263-6 of this chapter and are summarized below:

GW-1 and WP Steep 50 ft. 30 ft.
GW-1 and WP Shallow 40 ft. 25 ft.
GW-2 Steep 40 ft. 25 ft.
GW-2 Shallow 30 ft. 25 ft.

The first number (example: 50) represents the structure setback while the second number (example: 30) represents the no disturbance zone area.

Rules and Regulations of the Dover Wetlands Bylaw, Section 263-5(J)(2) states, "[i]n the event that the applicant can demonstrate that no reasonable alternative exists and proposes to take all necessary measures to prevent both short- and long-term impacts to the wetland, the Commission may, at its discretion, modify or waive this provision."

Dracut

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes 50 foot - no construction

There is a 50 foot no construction zone around most wetlands resource areas.

"Except as permitted by the Conservation Commission pursuant to this bylaw, or as otherwise allowed in this bylaw, no person shall fill, dredge, build upon, degrade, discharge into or otherwise alter any Resource Area or Buffer Zone as defined in Section IX of this bylaw. It shall be assumed that significant adverse effect on the wetland values protected by this bylaw will result from any filling, dredging, building or other alteration within a Resource Area, land subject to flooding or inundation by groundwater or surface water, or within 50 feet of the edge of any freshwater wetland, vernal pool, bank, reservoir, pond of any size, land under waterbodies, or any marsh, wet meadow, bog or swamp. Said resource areas shall be protected whether or not they border surface waters.

The construction of any building may be prohibited within 50 feet of any bank, fresh water wetland, beach, marsh, wet meadow, bog, swamp, or lands bordering or on any estuary, creek, river, stream, or lake or any land under said waters." From the Town of Dracut Wetlands Bylaw, Section II (Adopted 1993).

Email from Lori Cahill (12/6/04):

"50' is the Dracut bylaw, but building may take place within 50' of the resource area, with the discretion of the board, and a very strict order of conditions.

Vernal pools are very heavily protected, yet the board still has the discretion to allow building closer than 50', although that rarely happens."

...

"The bylaw gives the Conservation Commission the flexibility to grant permits within the 50' buffer. Generally, the Commission like to see an honest effort by the applicant to keep everything outside of the 50'. In hardship cases, if protection of the resource area is adequate, permits will be granted.

Lori Cahill
Conservation Agent
Town of Dracut"

Dunstable

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes The researcher did not find any reference to limited use zones in the bylaw or regulations. Marilyn Pike, member of the Dunstable Conservation Commission, said (11/08/04) that this was in the regulations and perhaps the researcher did not have the updated regulations. Ms. Pike says the Commission enforces a 60 foot no disturbance policy and did not mention any waiver provisions.

Duxbury

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes 50 foot - no structure with wall type foundation; no variances
35 foot - no structure with an open pile foundation; no variances
25 foot - no disturbance (landscaping)

Duxbury's setbacks include a 50 foot setback for structures with wall type foundations, a 35 foot setback for structures with open pile foundations, and a 25 foot setback for landscaping. Mitigation of a setback is not possible in most cases.

"9.00 Project-Specific Performance Standards

The following performance standards can be applied to projects that take place in one or more of the resource areas as defined herein. The Conservation Commission has frequently reviewed certain activities and as a result has developed standards that the Commission feels are sufficient in most cases to protect the interests of each affected resource area. In addition to the following specific performance standards, the Conservation Commission may require a Conservation Restriction on land associated with new projects in any resource area defined herein, if the Commission deems it necessary to protect the interests of the resource area. The intent of the Conservation Commission is to move all structures and activities as far away as possible from any Resource Area.

9.1.0 Structures

(1) The Commission may at its discretion allow a proposed structure on a wall-type foundation within 100 to 50 feet of the resource area, as defined in

Section 3.00 (1), (2), and (3), if satisfied that mitigation required in the Order of Conditions is sufficient to protect the resource area.

(2) No mitigation is sufficient to allow a structure on a wall-type foundation less than 50 feet to a resource area, as defined in Section 3.00 (1), (2), and (3).

(3) The Commission may at its discretion allow a structure on an open pile foundation within 100 to 35 feet of a resource area, as defined in Section 3.00 (1), (2), and (3), if satisfied that mitigation required in the Order of Conditions is sufficient to protect the resource area.

(4) No mitigation is sufficient to allow a structure on an open pile foundation less than 35 feet to a resource area, as defined in Section 3.00 (1), (2), and (3).

9.2.0 Septic Systems

(1) Septic systems that are in any resource area which pre-exist these regulations may be maintained and repaired but not enlarged (no additional flow), unless allowed by the Duxbury Board of Health.

(2) For new dwellings, no part of a septic system shall be constructed in any resource area.

9.3.0 Pools and Tennis Courts

(1) The Commission may at its discretion allow a proposed pool or tennis courts and all associated structures and facilities within 100 to 50 feet of a resource area, as defined in Section 3.00 (1), (2), and (3), if satisfied that mitigation required in the Order of Conditions is sufficient to protect the resource area.

(2) No mitigation is sufficient to allow a pool or tennis court less than 50 feet to a resource area, as defined in Section 3.00 (1), (2), and (3).

(3) No water from the swimming pool shall be discharged closer than 50 feet to a resource area.

9.4.0 Landscaping

(1) No new lawns may be constructed within 25 feet of any resource area, as defined in Section 3.00 (1), (2), and (3).

9.5.0 Impervious Cover

9.5.1 Beach Front- Gurnet Road Area

(1) The Conservation Commission wishes to limit hardened surfaces on Duxbury's barrier beaches. During coastal flood events flowing floodwaters move sediment as part of the natural cycle of the barrier beach. The energy in these floodwaters is dissipated by soft relatively flat surfaces. Limiting the amount of hard impervious surfaces is necessary to preserve barrier beach values of flood control, prevention of storm damage, prevention of pollution, and public safety. In light of this the Duxbury Conservation Commission has established the following regulation. This is a regulation for the installation of impervious driveways and walkways in the Duxbury Beach Area as shown on Assessors Maps 210b, 211, and 212. Applicants must file an application with the Conservation Commission and obtain approval for the project prior to the commencement of any work.

(2) Beachfront Properties - V & AO zones (as defined herein) along the seawall

(a) Impervious driveways and walkways for the beachfront properties along the seawall--overwash zones may be installed from the roadway to the house only. (b) The total combined area of the impervious driveway and walkways shall not be more than 500 square feet.

(c) Impervious walkways shall be no more than 36-inches wide.

(d) The area between the house and seawall shall be pervious material.

(3) Non-Beach Front Properties - A zone (as defined herein) - Still Water Flood Zones

(a) Impervious driveways and walkways may be installed on the lot.

(b) The total combined area of the impervious driveway and walkways shall not be more than 500 square feet.

(c) Impervious walkways shall be no more than 36-inches wide.

9.5.2 Other Areas

(1) Total impervious cover of any type shall not exceed 15% in residential zoned areas in the resource areas as defined in Section 3.00 (4) & (6).

Impervious coverage calculations shall include, but not be limited to all structures, impervious driveways, impervious walkways, impervious roadways, decks, pools, tennis courts, and any other similar surfaces that cover the ground.

9.6.0 Piers

(1) Construction of piers shall be accomplished as determined by the Commission so as not to change shoreline movement of sediments, harm significant shellfish interests, and shall not destroy or pollute fisheries and shellfish habitat or nutrient sources for those interests, obstruct shellfishing, or obstruct the reserved public rights of fishing, fowling, navigation, or passage, or significantly destroy a public view or degrade aesthetic value. No solid fill piers shall be permitted. No creosote wood shall be permitted.

(2) Any post or pile permitted shall be driven, not washed or jetted, into any salt marsh resource.

(3) No walkway or pier shall extend any greater distance than necessary to reach just beyond vegetated salt marsh.

(4) The intent of the Commission is to have the size of the structures as small as possible to minimize impacts. The Commission may allow at its discretion, a walkway no greater than 4 feet wide at any point; 200 feet long; a platform no greater than 6 feet by 8 feet including the walkway; and a float no greater than 10 feet by 20 feet, if satisfied that mitigation required in the Order of Conditions is sufficient to protect the resource area.

(5) Piers shall be constructed using procedures determined by the Commission to be the best available measures to minimize adverse effects on Interests Protected by the Bylaw.

9.7.0 Underground Storage Tanks

(1) No underground storage tank for oil or hazardous material is permitted in any resource area.

9.8.0 Filling

(1) No fill shall be placed in the resource area as defined in Section 3.00 (4), (5), and (6) that will alter the flow of surface water in a way that the Conservation Commission feels will alter any resource area.

- (2) Salt marshes shall not be filled.
 - (3) The Commission at its discretion may allow the filling of up to 2,500 square feet of Vegetated Wetland for a limited project, if satisfied that mitigation required in the Order of Conditions is sufficient to protect the resource area. If filling is allowed, the applicant must replicate at a ratio of at least 2:1. A bridge covering a resource area is considered fill.
 - (4) Compatible fill may be used for beach and dune nourishment projects.
 - (5) No dumping of lawn wastes, brush or leaves is permitted in resource areas.
 - (6) The Commission may also deny any filling of any resource area." From the Town of Duxbury Rules and Regulations, Section 9.
-

Easton *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes The Easton Town Code creates several no build and no disturb zones.
Section 503-16C = 50 foot no build zone around banks
Section 503-17C = 50 foot no build zone around vegetated wetlands
Section 503-18C = 50 foot no build zone around land under water
Section 503-19C = 50 foot no build zone around land subject to flooding
Each of 503-16 - 503-19 has a subsection E which creates a 50 foot no disturb for such areas if the abut a "estimated habitat area" as certified by the Massachusetts Natural Heritage and Endangered Species Program.

Variations are available under Section 503-21 of the Easton Wetlands Bylaw.

Foxborough *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 25 foot no disturbance

"No activity other than the maintenance of an already existing structure which will result in the building within or upon, removing, filling, or altering of land within 25 feet of a bordering vegetated wetland or an inland bank –will 1 be permitted by the Conservation Commission.

The only exceptions to the above twenty-five (25') foot buffer zone will be for: (1) a wetland crossing permitted under M.G.L. Chapter 131, Section 40 and Article IX, the Town of Foxborough Conservation By-Laws, 1 and/or (2) when the commission determines that there are no reasonable conditions or alternatives that would allow the project to proceed in compliance with the by-laws; and that the mitigating measures are proposed that will allow the project to be conditioned by the Commission so as to contribute to the protection of the interests identified in M.G.L. Chapter 131, Section 40 and Article IX, the Town of Foxborough Conservation By-Laws."

David Risch, Foxboro Conservation Agent, stated (9/9/04) that the Commission enforces this no cut-no build zone around all wetlands resource areas.

Framingham *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No In the Framingham Wetlands Bylaw, the Framingham Conservation Commission may create such zones, as Article V, Section 18.2 of the Framingham town bylaws states: "The Commission may establish a no work/no alteration zone as appropriate to each application."

According to Michelle Grzenda, Framingham's Conservation Administrator, the Framingham Conservation Commission has an unwritten policy for a 30 foot no touch around resource areas. The commission hopes to promulgate formal regulations detailing a no touch/no build zone rule this fall.

Franklin *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 25 foot no disturbance

Rich Vacca, Franklin Conservation Agent, stated (8/3/04) that the Franklin bylaws (Section 181-3) empower the commission to establish a no-build zone within its 100 foot jurisdiction around wetland resource areas (200 feet from rivers). Franklin has chosen to enforce a 25 foot no-build zone (leaving an undisturbed vegetated buffer) from a resource area. Mr. Vacca said that no variances are available.

Additionally, in Section XIV - Performance Standards of the regulations, part A. Minor Zone Activity specifies "[t]he Conservation Commission (Commission) shall presume that activity proposed to occur: ... 4. At a minimum, a 25 foot wide area is preserved between the activity and the resource area boundary ..."

(Rules & Regulations - Town of Franklin Conservation Commission, Adopted 1997)

Freetown *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No The researcher did not find any specific reference to "no build" or "no disturbance" zones in the wetland bylaws.

Survey received from Freetown on 6/10/05:

"No but request 20' no touch zones."

Georgetown *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes No cut zone-50 ft.
Any new non-vegetated area or structure must be setback 75 ft.

From Table 14 "Required Minimum No Disturbance Zones" and Table 15 "Required Minimum Setbacks" in the Town of Georgetown's Wetlands Protection Regulations (Adopted June 2003, Amended 2004).

Variances can be obtained.

"The Commission shall not grant any exception to these regulations unless a request for such exception is specifically made in writing by the applicant. Such a request must include a rationale for the exception along with proposed compensation or mitigation for the exception. Requested exceptions must be prominently [sic] noted in the written narrative and must show on the submitted plan for the project. No exception to these regulations shall be valid unless it is specifically noted in writing by the Commission in the Findings or Determination or Permit or Order it issues regarding a project, and any such exception is specifically noted in writing on any final approved referenced plans." From The Town of Georgetown's Wetlands Protection Regulations, Section 16.2 (Adopted June 2003, Amended 2004).

Gloucester *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No No reference in the Gloucester Ordinance to limited use zones.

Grafton *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No The researcher found no reference to limited use zoning in the regulations or bylaws.

Groton

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes 50 foot no disturbance

"Therefore this chapter strictly limits any disturbance within adjacent upland areas by prohibiting the following activities or uses:
(a)Disturbance of any existing vegetation within 50 feet of any freshwater wetland, except for removal of invasive vegetation only, if done in compliance with standards provided in the regulations." From the Town of Groton Wetlands Protection Bylaw, Section 215.7 (A.1.a) (Adopted 2001, Amended 2003).

The researcher did not find any reference to variance provisions.

Groveland

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes 25 foot no cut

There are variance provisions within the 100 foot buffer zone. The researcher is unclear whether this applies to the 25 no cut zone.

"There shall be a no cut zone 25 feet in depth (measured horizontally from the mean annual high water mark) adjacent to the protected Resource. Vegetation in this zone shall not be cut or trimmed in any manner. A single path to the Resource area per lot may be created and maintained if limited to seven (7) feet in width. Paths on adjacent lots shall be separated by a minimum of 25 feet." From the Town of Groveland Wetlands Protection Regulations, XIV.4.a.

"Notwithstanding the provisions of paragraphs XIV.2 and XIV.3 herein, the Commission at its sole discretion may issue a Permit for execution of work in the Buffer Zone of the limited range of projects identified in 310. CMR 10.53" From the Town of Groveland Wetlands Protection Regulations, XIV.5.

"Any proposed work in [a] Freshwater Wetland shall not destroy or otherwise impair any portion of said area. However, and at its sole discretion, the Commission may issue a Permit allowing work which results in the loss of up to 5,000 square feet of Freshwater Wetlands when said area is replaced in accordance with the following general conditions and any specific conditions the Commission deems necessary to ensure that the replacement are will function in a manner similar to the area that will be lost." From the Town of Groveland Wetlands Protection Regulations, XIV.5.

Halifax

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes 50 foot - no activity

"No activity, other than the maintenance of an already existing structure, which will result in the building within or upon, removing, filling, or altering a vegetated wetland, or of land within 50 feet of a vegetated wetland, shall be permitted by the Conservation Commission, except for activity which is allowed under a variance from these regulations granted pursuant to Section 4.01." From the Rules and Regulations accompanying Article 6, Section 2.03(Adopted 1989).

"The Conservation Commission may, in its discretion, grant variances from the operation of one or more of these rules and regulations pursuant to this Section. Such variances are intended to be granted only in rare and unusual cases, and shall be granted only in accordance with the provision of this section.

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

a) The Conservation Commission may grant a variance from these rules and regulation upon a clear and convincing showing by the applicant that any proposed work, or its natural and consequential impacts and effects, will not have any adverse effect upon any of the interests protected in the Bylaw. It shall be the responsibility of the applicant to provide the Conservation Commission with any and all information which the Commission may in writing request in order to enable the Commission to ascertain such adverse effects, and the failure of the applicant furnish any information which as been so requested shall result in the denial of a request for a variance pursuant to this subsection.

b) The Conservation Commission may grant a variance from these rules and regulation when it is necessary to avoid so restricting the use of the property as to constitute an unconstitutional taking without compensation. If an application for a variance pursuant to the subsection is received by the Conservation Commission, the Commission may request an opinion from Town Counsel as to whether the application of these regulation to a particular case will result in such a taking without compensation."

"Land within 100 feet of a vegetated wetland is likely to be significant to the protection and maintenance of vegetated wetlands, and therefore to the protection of the interest which these resource areas serve to protect." From the Rules and Regulations accompanying Article 6, Section 2.02 (1) (Adopted 1989).

"Vegetated Wetlands are freshwater wetlands. The types of freshwater wetlands are wet meadows, marshes, swamps, and bogs. They are areas where the topography is low and flat; and where the soils are annually saturate. The ground and surface water regime and the vegetational community which occur in each type of freshwater wetland are specified in Section 2.02(2)(c)(1) through 2.02 (2)(c)(4)"

From the Rules and Regulations accompanying Article 6, Section 4.01 (Adopted 1989).

Hamilton *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes Section III of the Hamilton Wetlands Regulations creates a 50 foot no build zone and a 25 foot no disturb zone around all wetlands resource areas. Variances are available under Section I.3.E of the Hamilton Wetlands regulations.

Hanover *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes According to Sandra D. MacFarlane, Hanover Conservation Secretary, (8/13/04), Section V, Part C.3, establishes no build and no disturbance zones. They are as follows:
Residential = 25' no-work, 35' no-build
Commercial = 35' no-work, 50' no-build
Vernal Pool Zone = 50' foot no-work, 75' no build.

There are variances with mitigation.

From Section V, 3. Presumption,
"Based on experience to date with projects in the Buffer Zone, the Commission shall presume that work in the categories below, within the tabulated distances from a resource area, will result in alteration of the resource area. This presumption is rebuttable and may be overcome upon a clear showing that the nature of the proposed work, special design measures, construction controls, or site conditions will prevent alteration of the resource area."

(Town of Hanover Wetlands Protection By-Law 6-14 - Rules and Regulations, Adopted 1998)

Hanson *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes Section 8.01 of the Hanson Wetlands Regulations establishes a 50 foot no disturbance zone around all wetland resource areas (95 feet for commercial and industrial structures.)

"8.01 BUFFER ZONE SET BACKS

(1) The Commission, based on its experience, has devised no DISTURB zones (see 1.04) for applicants to use in designing their projects to achieve the resource protection sought by the By-law.

(2) Dimensions for NO DISTURB AREAS:

(a) Single family homes, including decks, porches, garages, asphalt or bituminous concrete parking areas or driveways, swimming pools and tennis courts.

(i) from top of bank of a water body: 50 feet.
(ii) from edge of a vegetated wetland: 50 feet.

... "

Conservation Commission told the researcher (12/20/04) that it would be very difficult for new construction to get a waiver for a no disturbance zone. However, in theory someone could file an application with the board.

Harvard**Does the municipality enforce "no build zones" within the buffer zone around wetlands?****No**

No reference to limited use zones in the wetlands bylaw or regulations.

Haverhill**Does the municipality enforce "no build zones" within the buffer zone around wetlands?****Yes**25 foot no build-no disturbance zone
50 foot-no disturbance zone
variances

"Land within 100 feet of specific resource areas, and 200 feet from sensitive resource areas such as: Kenoza Lake, Crystal Lake, Chadwick Pond, Johnson Pond, and Millvale Reservoir are presumed important to the protection of these resources because activities undertaken in close proximity to wetlands and other resources have a high likelihood of adverse impact upon the wetland or other resources, either immediately, as a consequence of construction, or over time, as a consequence of daily operation or existence of the activities. These adverse impacts from construction and use can include, without limitation, erosion, siltation, loss of groundwater recharge, poor water quality, and loss of wildlife habitat. The Commission therefore may require that the applicant maintain a strip of continuous, undisturbed vegetative cover within the 100 foot area, unless the Commission finds that the areas or part of it may be disturbed without harm to the values protected by the ordinance. When proposing alteration of land within 50' of a wetland, the applicant must overcome a strong presumption of adverse impact on the adjacent wetlands and their functions and values. The Commission is empowered to require a 25' no build-no disturbance zone extending from the edge of all wetland resource areas and a 50' no build zone. No activity is allowed in the no-disturbance zone except as allowed by the Commission or this ordinance. Building construction of any kind, except as allowed by the Commission of this Ordinance is prohibited in the no-build zone. Due to the highly sensitive nature of the six waterbodies, mentioned in this section of the ordinance, the size of restricted zone in these areas may be increased to the amount needed to protect the wetlands and reviving water bodies from degradation. The exact size of those zones will be made on a case-by-case basis." From the City of Haverhill Wetlands Protection Ordinance, Section VI (Adopted 1996).

According to conservation agent Rob Moore, variances are granted for setbacks but it is rare for new development. (1/4/05)

Hingham**Does the municipality enforce "no build zones" within the buffer zone around wetlands?****Yes**20 foot no cut
25 foot no pavement
35 foot no accessory bldg
50 foot no build (with heat)

From Section 10.12 Construction Setbacks,

"The following MINIMUM setbacks shall apply between the activity or structure listed and any resource area subject to protection under the By-Law, excluding any proposed filling:

1. Structures to be used for living quarters including breezeways, porches and decks 50'
2. Structures not to be used for living quarters (including commercial and industrial buildings, garages, etc) 35'
3. Swimming pools (both below and above ground) 35'
4. Driveways, roadways, parking areas, any other paved area and any area paved or gravel to be used for the storage, transport or repair of motorized vehicles 25'
5. Clear cutting, grading and/or filling 20'
6. No new construction for the storage of gasoline oil or other fuel or hazardous materials shall be permitted in, or within 100' of any resource area, note: present tanks may be replaced under guidelines as set by the Hazardous Waste Committee of the Town."

(Regulations of Town of Hingham's Wetland's Protection By-Law, Adopted 1987)

The researcher did not find any mention to variances within the appropriate section of the regulations.

Holbrook*Does the municipality enforce "no build zones" within the buffer zone around wetlands?***No**

Janet DeLonga, Conservation Agent, said that the setback provisions were removed from the bylaw at town meeting. (8/25/04)

Holden*Does the municipality enforce "no build zones" within the buffer zone around wetlands?***No**

No reference to limited use zones in the wetlands bylaw.

Holliston*Does the municipality enforce "no build zones" within the buffer zone around wetlands?***Yes**

Section 3.4 of the Holliston Wetland Regulations reads:

"NO DISBURBANCE AREA

Unless specified elsewhere in these Regulations, it is presumed that significant adverse effects on the interests protected by the Bylaw result from any filling, dredging, building upon or other alteration within a resource area or within a minimum of 50 feet horizontally outward from the upland edge of a resource area, unless the applicant demonstrates by a preponderance of the credible evidence that such significant adverse effect will not occur, and the Commission accepts and approves such evidence."

(Town Of Holliston Wetlands Administration Bylaw Regulations, Adopted 2001)

Hopkinton*Does the municipality enforce "no build zones" within the buffer zone around wetlands?***Yes**

50 foot no disturbance

There is a table in Section 10 that depicts setbacks from wetlands.

For "Residential activity, including residential lots and multi-family residential development" the limit of work or disturbance is 50 feet. The limit of structure for this type of work is also 50 feet. The limit of work or disturbance, and the limit of structure for "any activity abutting a vernal pool, whether or not the activity is listed in any other category in this table" is 125 feet.

There are only waiver provisions if the "Applicant convinces the Commission that the area or part of it may be disturbed without harm to the values protected by the Bylaw."

(Hopkinton Wetlands Protection Bylaw - Wetlands Protection Regulations, Adopted 2003)

Ipswich*Does the municipality enforce "no build zones" within the buffer zone around wetlands?***Yes**

50 foot - no disturbance

65 foot - no build zone

"In evaluating the effect of activities which are proposed in the buffer zone, the Commission shall review the short-term, long-term, and cumulative effects of the activity on the adjacent resource areas. The Commission is concerned with future encroachments on resource areas and therefore requires that a permanent 50-foot No-Disturbance Zone and

a permanent 15-foot No-Build Zone be established on all projects in the buffer zone not otherwise exempted from this provision. For projects or activities proposed on previously developed lots for which neither a subdivision nor a change in use is proposed, or for which a Notice of Intent is filed with the Commission prior to the effective date of this regulation, the No-Disturbance Zone shall be 25-feet. The No-Disturbance Zone is defined as the area horizontally landward of a wetland resource area or an ACEC, other than the buffer zones thereto, in which there shall be no alteration. The No-Build Zone is defined as the 15-foot area landward of the No-Disturbance Zone in which there shall be no structures.

The No-Disturbance Zone shall be marked with permanent monuments and shown on a plan, at the applicant's expense, as defined in Paragraph D. These Zones shall not apply to activities which are exempt or are specifically permitted to occur adjacent to resource areas as defined in 310 CMR 10.00. The Commission, at its discretion, may approve activities in these Zones which will have no impact on the adjacent resource area and serve to protect the Interests of the By-law. Variances to the dimensional requirements of these Zones may be granted by the Commission in situations where the applicant can demonstrate that a substantial hardship, owing to the shape or topography of the applicant's property, would be imposed on the applicant. In cases when a variance is considered, the Commission shall require that an additional No-Disturbance Zone of 1.5 times in area be provided at another location on the applicant's property." From Ipswich Wetlands Regulations, Section C (Adopted 2001).

Kingston *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes There is a 25 foot no disturbance zone around a wetland resource and a 100 foot no disturbance zone around a vernal pool.

"The Conservation Commission requires that an undisturbed Buffer Zone be maintained a minimum of 25 feet in width adjacent to any area subject to protection and a minimum of 100 feet in width adjacent to any vernal pool. No activity of any kind shall be allowed in the undisturbed buffer zone without specific permission of the Commission." From the Town of Kingston Wetlands Protection Regulation. 6.01.

Leicester *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No The researcher did not find any reference to limited use zones in the wetland bylaw.

In response to "does Leicester have a no disturbance or no build zone in the wetlands buffer zone?", Conservation Chair Dianna Provencher responded, "Not at this time." (12/01/04)

Lexington *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes Lexington has buffer zones detailed for New Construction, Existing Structures, and Site Development and Landscaping. Essentially, the Commission has a 25 foot no disturbance zone and a 50 foot zone for new construction.

RULES ADOPTED BY THE LEXINGTON CONSERVATION COMMISSION PURSUANT TO BY-LAWS ARTICLE XXXII, GENERAL BY-LAW FOR WETLAND PROTECTION, SECTION 5(5) (Adopted 1985, Amended 1992)

"New Construction:

1. No setbacks for structures necessary for upland access where reasonable alternative access is unavailable, for wetland dependent structures such as drain outfalls, weirs, etc. and for underground utilities.
2. 25 feet - 100 feet for roads, driveways, retaining walls.
3. 50 feet - 100 feet for all other structures: residential and commercial buildings, garages, parking lots, decks, etc.
4. 100 feet plus for underground storage of gasoline, oil, or other fuels and hazardous materials.

Existing structures:

Properties not presently in compliance with the above will not be permitted to increase their degree of non-conformance.

C. Site Development and Landscaping

1. Of contiguous land within the 100-foot buffer zone, construction activities can disturb no more than 50% or the amount not presently supporting a natural community, whichever is greater.
2. Within 25 feet of a wetland a critical edge shall be required where:
 - a. there shall be no clearcutting of trees and surface vegetation, only selective thinning of trees to a spacing of not more than 20 feet;
 - b. brush may be topped to a height of three feet or replaced with a more desirable species;
 - c. areas disturbed by construction must be planted with a continuous groundcover requiring no fertilizers or pesticides for maintenance.
3. Critical edge may be waived to provide access to bodies of water.

Commentary:

Past experience has shown that construction within these buffer zones is very likely to cause significant harm to the interests sought to be protected by the General By-Law for Wetland Protection. The Conservation Commission will therefore not approve any smaller buffer zone unless it is persuaded by clear and convincing evidence that the smaller buffer zone will secure the protection of those interests."

Lincoln

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

According to Tom Gumbart, the inner 50' buffer zone is an area where there is "no disturbance".

Article XVIII Wetlands Protection, Section 7

"It shall be presumed that significant adverse effect on the resource area values protected by this bylaw will result from any filling, dredging, building upon or other alteration within a wetland resource area or within 50 feet of the edge of any freshwater wetland, marsh, wet meadow, bog, swamp or vernal pool, within 50 feet of the top of the bank of any lake, pond or intermittent stream, or within 100 feet of the top of the bank of any river or perennial stream, unless the applicant demonstrates by convincing evidence that such significant adverse effect will not occur."

According to Gumbart, a developer would have to demonstrate no viable alternative to build within 50'. To build a house within 50' would be hard, he commented.

Littleton

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

No

Barbara Chapin, Littleton Conservation Administrator, on 8/31/04 said that Littleton's wetlands bylaw is new, and does not have a no build or no disturbance zone.

Lowell

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

The researcher found no reference to this limited use zone in the bylaws.

Christine Thomas, Lowell Environmental Officer, 8/27/04, said that the Lowell conservation commission can set up to 100 foot no disturbance area from a wetland resource area. Usually, they will set up a 50 foot no disturbance. A variance to work within 50 feet is available, and requires the approval of both the Lowell conservation commission and the Lowell zoning board.

Survey received from Lowell on 3/21/05:

"Yes 25 ft."

Lunenburg

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

There is a 30 foot no disturbance zone.

"any work undertaken in the Buffer Zone of a Bordering Vegetated Freshwater Wetland shall not in any way damage or destroy the naturally occurring critical edge vegetation within 30 feet of the edge of the wetland, except where no other reasonable alternative is available" From the Lunenburg Wetlands Protection Bylaw and Regulations Part II, Section 10.55.5(b) (Adopted 1983, Amended 1987).

Conservation agent confirmed that variance could be granted in some cases. (1/18/05)

Lynn

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

Lynn Conservation Commission Wetland Protection Bylaws, Section 12, Subsection 7. (Adopted 2000, Last Amended 2001).

The following activities are prohibited on the land within 100' (within the buffer zone):

- Any activity within 25' of a wetland resource area;
- Installation of underground fuel oil storage tanks;
- Rendering 22% or more of the protected lands within 100' resource area impervious (CN greater than 89) on any lot;
- Altering more than 75% of the protected lands within 100' resource area on any lot.
- Altering the protected resources around vernal pools (review may be made on a case by case basis)

The preceding restrictions are intended to represent the limits beyond which the ability of the resource area to function is presumed to be impaired. The presumption may be overcome by a clear showing that the ability of the resource area to function will not be impaired. All work proposed in a protected resource area will be reviewed on a case by case basis.

In addition, the town aims to have no disturbance zone within 100 feet of the water edge of a vernal pool.

From Section XXI. Performance Standards,

"6. Vernal Pools

Vernal pools and vernal pool habitat as defined in this By-Law shall be determined by the Lynn Conservation Commission. The Commission need not identify vernal pool and vernal pool habitat locations prior to application with the Commission... A vernal pool need not be identified or certified (with the Division of Fisheries and Wildlife, Natural Heritage and Endangered Species Program) prior to application or Notice of Intent with the Commission...

There shall be no alteration of any vernal pool or its buffer zone. The Buffer Zone is critical to the continued function of a vernal pool, and any work in

this area should be avoided. The protectable area is the vernal pool itself and up to 100 feet beyond the pool's margin. Specific buffers to vernal pools and vernal pool habitat will be assessed on a case by case basis."

(Lynn Conservation Commission Wetlands Protection By-Laws, Rules and Regulations, Adopted 2000, Amended 2001)

Manchester-by- *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 50 foot no disturbance

From Section 5.4.1 Presumptions,
"Based on experience to date with projects within one hundred (100) feet of wetlands, the Commission shall presume that work in the categories below, within the tabulated distances from a Resource Area, will result in alteration of the Resource Area. This presumption is rebuttable and may be overcome upon a showing by a preponderance of credible evidence that the nature of the proposed work, special design measures, construction controls or site conditions will prevent alterations of the Resource Area. For the purposes of the table below, "disturb" means filling, excavation, grading, operation of motorized construction equipment and storage or stockpiling of earth or construction materials, alteration of vegetation, and "building" means a structure requiring a building permit."

The Manchester-by-the-Sea wetlands regulations sets the following no disturb and no build zones around wetland resource areas:

Existing Residential Lot 30 foot no disturb, 50 foot no build;

New Residential Lot 50 foot no disturb, 50 foot no build;

Subdivision lot

(with lot preparation done 50 foot no disturb, 75 foot no build

in conjunction with

road construction);

Commercial/Industrial 50 foot no disturb, 75 foot no build;

Driveways/Utilities

Other roads/Drainage 25 foot no disturb (except for permitted crossings)

(Town of Manchester-by-the-Sea Wetlands Regulations, Amended 2002)

Conservation Commission (12/20/04) told the researcher that waivers to the 50 foot no disturb zone could be granted but that the applicant would have to "jump through a lot of hoops" and "prove with a preponderance of evidence" that they have no alternative. In addition, the Commission would likely require the applicant to offset the disturbance by replicating the wetland elsewhere.

Mansfield *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 25 foot no disturbance
25-50 foot limited use

The conservation agent (10/25/04) said that no new construction would be granted a variance to build in the first 25 feet of a buffer zone. Between 25-50 ft waivers can be granted if a project meets the conditions stipulated by the Commission.

"2.4 To provide minimum protection for the wetlands values and resource areas, no activity, unless permitted in Section 2.5, shall be allowed within 25 feet of any resource area [hereinafter 'the no disturb zone']. Further, the commission reserves the right to prohibit, or significantly condition, through the issuance of an Order of Conditions, work between 25-50 feet away from any resource area. In determining whether to prohibit or condition work within this area, the Commission will take into account factors including, but no limited to, the slope of the adjacent areas, the existing and proposed drainage patterns, the type of the proposed adjacent land use and its potential for creating long-term impacts on the resource areas and the wetland values."

2.5 The following activities may be permitted within 25 feet of a resource area: the creation of wetland replacement or mitigation areas, installation of drainage outfalls, grading work associated with additions to existing single-family homes, the maintenance and construction of trails, resource improvement projects, such as the cleaning of streams or the creation of park areas. These exceptions will be reviewed on a case-by-case basis."

From Mansfield Conservation Commission Rules and Regulations for the Town of Mansfield Wetland Protection Law. Section 2.4-5 (Adopted 1999).

Any work in a resource area and its 100 ft buffer zone must be reviewed by the Commission before obtaining a permit to proceed.

"It is presumed that work which is proposed to occur within any resource area or within the buffer zone of any resource area has the potential to create significant adverse impacts on the resource area. Therefore, any activity will require the filing of a Notice of Intent Application. The Commission may

condition the proposed activity to protect the resource area(s), or if no condition exists to protect the area, then the Commission may deny the project. For activity proposed to occur between 50-100 feet away from any resource area [except a certified Vernal Pool], the applicant may file a Request for Determination of Applicability [RDA]. If a RDA is filed, the Commission may permit with any necessary conditions, the work based on the plans submitted, or can require the filing of a Notice of Intent."

From Mansfield Conservation Commission Rules and Regulations for the Town of Mansfield Wetland Protection Law. Section 2.3 (Adopted 1999).

Marblehead *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 25 foot no disturbance
50 foot no build
100 foot no disturbance (vernal pool)

For the no disturb zone (25 feet), disturb means: filling, excavation, grading, operation of motorized construction equipment and storage or stockpiling of earth or construction materials, alteration of vegetation. In the no building zone (50 feet), building means: a structure requiring a building permit.

The Town of Marblehead Wetlands Protection Bylaw Regulations, Section 5.4.1 (effective 2001) include both a no disturb and a no building zone.

The Town of Marblehead Wetlands Protection Bylaw Regulations, Section 5.4.1 (effective 2001) states that there is a presumption that work that would fall into the disturb or building category will result in alteration of the Resource Area. The section notes that this is a rebuttable presumption which may be overcome by a showing by the applicant of a, "preponderance of credible evidence that the nature of the proposed work, special design measures, and construction controls or site conditions will prevent alterations of the Resource Area."

Note that for alterations within the vernal pool resource area (that area which extends 100 feet around the mean annual boundary of the vernal pool) the applicant must provide compelling evidence to rebut the presumption.

Town of Marblehead Wetlands Protection Bylaw Regulations, Section 5.8 (effective 2001): "Notwithstanding any other provision of these Regulations, the Commission may in its discretion, waive strict compliance with these Regulations when, in the judgment of the Commission, all of the following are met: 1) there are no reasonable conditions or alternatives to allow the proposed activity to proceed in compliance with these Regulations; and 2) mitigating measures are proposed that will allow the proposed activity to be conditioned so as to contribute to the protection of the wetland values protected by the Wetlands Bylaw; and 3) such waiver would either serve a substantial public interest, or strict compliance with these Regulations would so restrict the use of property so as to constitute a taking of the property without compensation."

Marshfield *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 50 foot-no disturbance
100 foot - no disturbance (vernal pools)
75 foot - no building

There is a 50 foot no disturbance zone and a 75 foot no new construction zone. Vernal pools are protected by a 100 foot no disturbance zone. Exemptions are granted for minor projects as well as public works projects. Additionally, alteration to a wetland may be permitted if the proposed project is less than 5,000 square feet and provisions are made to replicate the wetland resource area with an area 200% of the original area in question.

"A set-back zone shall be created so that no disturbance or alteration shall occur within fifty feet (50') and no building or structure shall be placed within seventy-five feet (75') of any area set forth in Paragraph III (A) (i) for any new construction or development. No activity, including but not limited to landscaping, mowing, or removal of vegetation, is allowed in the no disturbance zone.

(i)A set-back zone shall be created so that no disturbance or alteration shall occur within twenty-five feet (25') or any area set forth in Paragraph III (A) (i) for existing lots with existing buildings.

(ii)The following activities shall be exempt from the set-back zone of any area set forth in Paragraph III (A)(i):

- a.Work related to the public water supply or municipal sewer systems;
- b.Structures related to stormwater management such as swales, retention, and detention basins, drainage pipes and headwalls;
- c.Work related to maintaining, repairing, or replacing, but not substantially changing or enlarging, an existing and lawfully located structure or facility used in the service of the public to provide electric, gas, water, or telephone service, provided that the written notice has been given to the Conservation Commission prior to commencement of work;
- d.Public Open Space nature trails, observation platforms, boardwalks, or footbridges;

- e. Seawalls, bulkheads, revetments;
- f. Docks, piers, and associated ramps;
- g. Repairs or improvements to existing onsite septic systems and their related structures in order to comply with current standards where there is no viable alternative. NO increase in the design flow of the dwelling shall be permitted.
- C. A Vernal Pool set-back zone shall be created where no disturbance or alteration shall occur within one-hundred feet (100') of a Vernal Pool." From the Town of Marshfield Wetlands Protection Regulations. Section X (B) (Effective 9/18/03).

"Any alteration of a vegetated wetland may be allowed up to, but not to exceed 5,000 square feet; provided, however, the wetlands so altered is replaced in kind by an area not less than two hundred (200%) percent of the area so altered," from the Town of Marshfield Wetlands Protection Regulations. Section X (F) (Effective 9/18/03).

Maynard

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

- A. Inner 50-Foot No-Disturbance Zone for Undisturbed Lands
- B. Inner 50-Foot No-Disturbance Zone for Disturbed Lands
- C. Outer 50-foot Buffer Zone
- D. 25-foot Isolated Land Subject to Flooding No-Disturbance Zone
- E. 100-Foot Vernal Pool No-Disturbance Zone

The Maynard Wetlands Regulations in Sections III.C outlines the no build and no disturbance buffer strips for wetlands in Maynard. They read:

"C. PERFORMANCE STANDARDS WITHIN THE BUFFER ZONES

1. Inner 50-Foot No-Disturbance Zone for Undisturbed Lands

Undisturbed Land is land determined by the Commission to be of a predominantly natural character or to have been altered after May 1996 without a permit from the Conservation Commission.

No alterations are permitted within 50-feet of a wetland resource area.

Prohibited alterations include, but are not limited to, grading, landscaping, clearing or cutting of vegetation, filling, excavating, and construction of roads or structures

Structures include, but are not limited to, single family houses, multi-family dwellings, commercial or industrial buildings, porches, decks, house additions, pools, septic systems, and sheds.

Driveways, roadways, fences, and facilities for stormwater management may be allowed in the 50-foot No-Disturbance Zone by waiver when no other feasible alternative exists; see Section IV.

2. Inner 50-Foot No-Disturbance Zone for Disturbed Lands

Disturbed Land is land determined by the Commission to be of a legally modified nature (e.g., parking lot, lawn, non-native landscaping, patio, etc.), modified prior to May 1996 or after May 1996 with a permit from the Conservation Commission).

No alterations resulting in a net increase in impervious surface area, a net increase in non-native or invasive species, a net increase in stormwater runoff, a net increase in lawn area, or net decrease in vegetative cover will be permitted within 50 feet of the edge of the wetland resource area

No structures shall be constructed or placed on pervious surfaces within 50 feet of the edge of the wetland resource area without compensatory restoration and mitigation.

Structures include, but are not limited to, single family houses, multi-family dwellings, commercial or industrial buildings, porches, decks, house additions, pools, septic systems, and sheds.

Driveways, roadways, fences, and facilities for stormwater management may be allowed in the 50-foot No-Disturbance Zone by waiver when no other feasible alternative exists; see Section IV.)

3. Outer 50-foot Buffer Zone: Activities within the outer 50 feet of a Buffer zone shall not adversely affect the form or function of the wetland resource area or the Inner 50-foot No-Disturbance Zone.

4. 25-foot Isolated Land Subject to Flooding No-Disturbance Zone: The entire 25-foot Buffer zone surrounding an isolated land subject to flooding shall be a no-disturbance zone, with the same conditions and performance standards identified above in paragraph 1 (for the Inner 50-foot No-Disturbance Zone for Undisturbed Land).

5. 100-Foot Vernal Pool No-Disturbance Zone: No alteration shall be permitted in the entire 100-foot Buffer Zone of a vernal pool, with the same conditions and performance standards identified above in paragraph 1 (for the Inner 50-foot No-Disturbance Zone for Undisturbed Land.)"

(Town of Maynard Wetlands Administration Bylaw, Adopted 1996, Amended 2003)

Section IV of the Maynard Wetlands Regulation reads:

"The performance standards for wetland resource areas and their Buffer Zones have been adopted to ensure that the interests of the Bylaw are adequately protected. The Commission recognizes that, in certain situations, a waiver of a specific performance standard may be appropriate for a particular project when the waiver is consistent with the intent and purpose of the Bylaw and these Regulations. The applicant shall have the burden of demonstrating that the granting of the waiver is consistent with the intent and purpose of the Bylaw and these Regulations. The Commission shall act on the request for a waiver and shall provide to the applicant, either by certified mail or hand delivery, its written decision. The following paragraphs describe the waiver and its associated mitigation measures for the Buffer Zone performance standards.

A. WAIVERS

The commission may grant a waiver from these Regulations for an alteration of a Buffer Zone area in situations where no feasible alternative provides less impact to the resource area values. The applicant is responsible for conducting an alternatives analysis to show that there are no such feasible alternatives. The Commission may grant a waiver of a performance standard and impose such additional or substituted mitigation requirements as it deems necessary. The applicant must show, clearly and convincingly that:

1. There are no practicable conditions or alternatives that would allow a project to proceed in compliance with the Regulations; and
2. The project, or its natural and consequential effects, will have the least possible adverse effects upon any of the interests protected by the Bylaw.

B. MITIGATION

In the case where a waiver is granted, the Commission shall require mitigation measures to be implemented to offset potential impacts to the wetland resource areas. The mitigation must maintain or improve the natural capacity of a resource area to protect the interests identified in the Bylaw."

(Town of Maynard Wetlands Administration Bylaw, Adopted 1996, Amended 2003)

Medfield *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 50 foot no disturbance

From the regulations, section 6. Clearing of Contiguous Land, 2. Presumption of 50-Foot Undisturbed Buffer, "The Commission presumes that an undisturbed forest or naturally vegetated buffer at least 50 feet wide between the edge of the resource area and the area the applicant proposes to disturb during a project is necessary to protect interests of the Bylaw, the Act, and the DEP wetlands regulations.

An applicant, proposing to disturb any area within such 50-foot shall have the burden of showing that the work proposed in the application will not harm the interests protected by the Bylaw, the Act and the DEP wetlands regulations... Nothing in this regulation shall prevent the Commission from prohibiting activity anywhere within the 100-foot buffer defined by the Bylaw, the Act, and the DEP wetlands regulations, including without limitation the area between the edge of the 50-foot buffer presumed necessary by this regulation and the 100-foot buffer."

(Medfield Wetlands Bylaw, Rules and Regulations Article IX, Section 6, Adopted 1995)

Medway *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 25 foot no disturbance

Section 21.2(b) of the Medway town bylaws reads:

"(b) Except as permitted by the Commission, no work shall be allowed within 25 feet of wetland resource areas identified in this Bylaw (exclusive of the 100 foot buffer zone). This provision shall establish a permanent vegetative buffer between wetland resource areas and developed areas. No removal of vegetation will be permitted within this 25 foot setback except as specifically waived by the Commission (I.E. Limited Project Wetland Crossings). In cases where the Commission allows the removal of vegetation within the 25 foot setback a comparable area within the 100 foot buffer zone shall be preserved."

(Medway General Wetlands Protection Bylaw)

Merrimac *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 25 foot no disturbance
50 foot no build

50 foot no disturbance
75 foot no build
(vernal pools)

Around wetlands there are 25 foot no disturbance, 50 foot no build zones. Around vernal pools, there are 50 foot no disturbance and 75 foot no build zones. There are waiver provisions.

From the regulations,

Section 5.1 No Disturbance Zones

"The Commission may grant a waiver from these regulations for alteration of a buffer zone resource area in situations where there are no feasible alternatives that provide less impacts to the resource area values. The applicant is responsible for conducting this alternatives analysis to show that there are no feasible alternatives. The Commission may grant waiver of the 25-Foot No-Disturbance Zone and/or 50-foot Vernal Pool No-Disturbance Zone performance standards and impose such additional or substituted mitigative requirements as it deems necessary, upon a clear and convincing showing by the applicant that:

1. There are no practicable conditions or alternatives that would allow the project to proceed in compliance with the regulations; and
2. The project, or its natural and consequential effects, will not have any adverse effects upon any of the interests protected by the Bylaw. It shall be the responsibility of the applicant to provide the Commission with any information that the Commission may request to enable the Commission to ascertain such adverse effects. The failure of the applicant to furnish any information that has been so requested shall result in the denial of a request for a waiver pursuant to this subsection; and
3. The project will improve the natural capacity of a resource area to protect the interests identified in the Bylaw, provided any adverse effects on any such interests are minimized by carefully considered conditions. However, no such project may be permitted which would have an adverse impact on rare or endangered plant or wildlife species.

5.2 No-Build Zones

The Commission may grant a waiver from these regulations for an alteration of a buffer zone resource area in situations where there are no feasible alternatives that provide for less impacts to the resource area values. The applicant is responsible for conducting alternative analysis to show that there are no feasible alternatives. The Commission may grant a waiver of the 50-foot No-Build Zone and 75-foot Vernal Pool No-Build Zone performance standards and impose such additional or substituted mitigative requirements as it deems necessary, upon a clear and convincing showing by the applicant that:

1. There are no practicable conditions or alternatives that would allow the project to proceed in compliance with the regulations; and
2. The project, or its natural and consequential effects, will not have any adverse effects upon any of the interests protected by the Bylaw. It shall be the responsibility of the applicant to provide the Commission with any information that the Commission may request to enable the Commission to ascertain such adverse effects. The failure of the applicant to furnish any information that has been so requested shall result in the denial of a request for a waiver pursuant to this subsection; and
3. The project will improve the natural capacity of a resource area to protect the interests identified in the Bylaw, provided any adverse effects on any such interests are minimized by carefully considered conditions. However, no such project may be permitted which would have an adverse impact on rare or endangered plant or wildlife species.

In the case where a waiver is granted in the No-Build Zone, the Commission shall require mitigation measures to be implemented to offset potential impacts to the wetland resource areas (see Section 6.0)."

(Town of Merrimac, Massachusetts, Wetlands Protection Regulations, Adopted 2004)

Methuen

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

50 foot no disturbance

35 foot no alteration

Between 36-50 ft construction and alteration are only permitted with special permission or if an activity meets the requirements of the grandfather clause.

"THE POLICY

As used herein:

"Alteration" shall mean any removal (grading, filling and/or excavation) of vegetative cover, soil or other naturally occurring materials.

"Construction" shall mean the construction of any permanent or temporary structure or building, including, without limitation, any residential or commercial building, garage, shed, barn, tennis court, deck, swimming pool, parking area, driveway, fence, or landscaping project.

In acting upon Notices of Intent and Determinations of Applicability, the Conservation Commission will presume that any alteration or construction within 50 feet of a wetland boundary would have a significant adverse impact on the wetlands, and such alteration or construction within 35 feet of a wetland boundary shall not be permitted, and such alteration or construction within 50 to 36 feet of a wetland boundary shall not be permitted unless the applicant demonstrates that (1) such activity would not have such an impact, or (2) public benefits, such as health or safety, outweigh any such impact, or (3) the activity involves the maintenance of existing structures, or (4) the activity is the installation of the stormwater outlet structure. The applicant will have the burden of proof by clear and convincing evidence on this issue. Factors to be considered by the Conservation Commission in determining whether the applicant has met this burden shall include, but are not limited to, the following:

- 1.Slope of the buffer zone.

- 2.Type and structure of vegetation, soil type and hydrology in the buffer zone.
- 3.Degree and scale of past alterations in the buffer zone.
- 4.Ecological integrity of the adjacent wetlands.
- 5.Importance of the buffer zone to wildlife utilizing the wetlands.
- 6.Whether the proposed activity in the buffer zone would be permitted if it were in the wetland.
- 7.Any ecological benefits arising from the proposed activity, such as removal of exotic vegetation or creation of enhanced wildlife habitat.
- 8.Any public benefits arising from the proposed activity.
- 9.Alternatives have been considered and in the judgment of the Commission no practical alternative is available. However, restoration or plantings in the zone may be required, to help define and protect the remainder of the buffer zone.
- 10.Project scope and design minimized the work in close proximity to resource area.
11. Project will not lead to encroachment on the resource area after the project is completed.
- 12.Commission may impose a wider undisturbed buffer zone to ensure protection of wetland resource areas if the project involves: sensitive habitats, steep slopes, highly erodible soils, extensive disturbed area or hydraulic conditions likely to promote significant erosion.

Applicants wishing to rebut the presumption set forth in this policy shall provide the Conservation Commission with the following information, together with any additional relevant information, which the Conservation Commission may require:

- 1.A cross-sectional profile of elevation change in any area of the buffer zone within 50 to 36 feet of a wetland, which would be disturbed by the proposed activity.
- 2.A list of all vascular plant species occurring in the 50 to 36 foot area of the buffer zone and adjacent to wetland areas including data on relative abundance of each species.
- 3.A wildlife habitat evaluation of the 50 to 36 foot area of the buffer zone and adjacent wetlands including data on observed wildlife utilization of such area, such as breeding bird use, occurrence of fish, reptiles, amphibians and mammals.
- 4.A description of the nature of any public or ecological benefits, which may arise from the proposed activities.
- 5.A photograph of the area to be disturbed.

It is the Conservation Commission's policy, where it has discretion, to prohibit any activity in the wetlands except where there are exceptional circumstances, where no practical alternative exists. For example, the Commission may grant a waiver from these regulations for the construction and maintenance of a new roadway or driveway of a minimum legal and practical width consistent with Planning Board dimensional standards, where no alternative means of access from an existing public or private way to an upland area of the same owner is available. Such an approach is consistent with the limited project provisions of the Act, and where satisfactory replication at a 2.0 to 1 ratio takes place prior to any alteration or construction. Activity within the 100 foot buffer zone will continue to be reviewed on an individual case basis.

EXISTING CONDITIONS EXEMPTIONS

1) Maintenance (but, no further alteration or expansion) of yards which existed on or before 9/30/2004, within the 50 foot buffer will be permitted, however homeowners are encouraged to maintain natural vegetation within 50 feet of the wetland edge to help improve the water quality of wetlands and streams. A list of wetland vegetation, which could enhance wildlife and water quality can be obtained from the Conservation Office at the Quinn Public Safety Building. The Commission encourages homeowners to allow a natural vegetation buffer to establish itself along the edge of streams, ponds and wetlands.

2) Grandfather Provision: The following uses, structures or permits are exempt from the provisions of this policy.

The normal use and routine maintenance of any structure or alteration of land, within wetland resource areas and their buffers, existing at the time of enactment of Chapter 12 (effective date December 2, 1987) and/or subsequent revisions of the ordinance may be continued subject to the following:

- a) existing structures, uses and/or alterations may not be extended and/or modified unless such extension or modification is permitted by a finding of the Commission that such alteration or modification shall have no adverse impact/significant effect to the resource areas and interests protected by the ordinance.
- b) existing structures, uses and/or alterations which have been abandoned for five years or more shall not be reestablished and any future use shall conform with then-current provisions of the ordinance, and
- c) maintenance and/or repair to existing onsite sewage disposal systems and drinking water supply; wells are excluded from this definition.
- d) projects having received a special permit under the comprehensive zoning ordinance where such permits were obtained prior to the effective date of this policy shall not be subject to this policy, however this exemption shall not apply if the permit is not exercised or expires."

From the City of Methuen's Regulations for their Wetlands Ordinance, Section 11 (Adopted 9-30-04).

The conservation agent said (10/25/04) that Methuen does not grant variances. However, a petitioner can file a rebuttal to town regulations to encroach on a wetlands resource up to 35 feet.

Additionally, waivers are automatically granted for normal and routine maintenance or use of structures in a buffer zone if they pre-date the enactment of the Wetlands Ordinance in 1987.

Milford *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes No reference in the Milford wetlands bylaw to "no build zones."

The setbacks do appear in the zoning bylaw:

Zoning Bylaw Town of Milford (Amended 2003) Article II Use and Intensity Regulations Section 2.4 Intensity of Use Regulations
2.4.8 Notwithstanding any other set-back requirement or other provision of the By-Law, there shall be minimum set-back requirement for any structure from a freshwater wetland, pond, stream or detention area as set forth below for various zoning districts. Freshwater wetland, pond and stream, and their limits, shall be defined and determined in accordance with M.G.L. c.131, Section 40 and the regulations adopted thereunder. A detention area is defined as an area, either man- made or natural, which has been designated to detain or retain rainfall runoff. The limits of a detention area shall be the high mark which occurs during a 100 year storm event. This elevation shall be determined by a Registered Engineer using acceptable methods of calculation.

All Residential Districts: 25 feet
All Commercial Districts: 15 feet
All Industrial Districts: 15 feet

Millis *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No There is nothing in the Town of Millis, Article XIX, Wetlands Protection Bylaw, which creates limited use zones.

Millville *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 50 foot no disturbance

12-7-3-1. Presumed Importance of Buffer Zone. Lands within 200 feet of rivers, ponds and lakes, and lands within 100 feet of other resource areas, are presumed important to the protection of these resources because activities undertaken in close proximity to resource areas have a high likelihood of adverse impact upon the wetland or other resource, either immediately, as a consequence of construction, or over time, as a consequence of daily operation or existence of the activities. These adverse impacts from construction and use can include, without limitation, erosion, siltation, loss of groundwater recharge, poor water quality, and loss of wildlife habitat. The Commission therefore may require that the applicant maintain a strip of continuous, undisturbed vegetative cover within the 200-foot [or 100-foot] area, unless the applicant convinces the Commission that the area or part of it may be disturbed without harm to the values protected by the bylaw.

12-7-3-2. Presumption of 50-Foot Undisturbed Buffer

(1) The Conservation Commission presumes that an undisturbed forest or naturally vegetated buffer at least 50 feet wide between the edge of the resource area and the area the applicant proposes to disturb during a project is necessary to protect the interests of the Bylaw, the Act, and the DEP wetlands regulations.

(2) An applicant proposing to disturb any area within such 50-foot buffer shall have the burden of showing that the work proposed in the application will not harm the interests protected by the Bylaw, the Act and the DEP wetland regulations. Failure to provide adequate evidence satisfactory to the Conservation Commission supporting a determination that the proposed work within such 50-foot buffer will not harm the interests protected by the Bylaw, the Act and the DEP wetland regulations shall be sufficient cause for the Conservation Commission to deny a permit or grant a permit with conditions, including without limitation, such buffer as the Conservation Commission deems appropriate, or, in the Conservation Commission's discretion, to continue the hearing to another date to enable the applicant or others to present additional evidence.

(3) Nothing in this regulation shall prevent the Conservation Commission from prohibiting activity anywhere within the 100-foot buffer defined by

the Bylaw, these regulations, the Act and the DEP wetlands regulations, including, without limitation, the area between the edge of the 50-foot buffer presumed necessary by this regulation and the 100-foot buffer.

(Town of Millville Wetland Protection Bylaw, Adopted 2003)

Milton *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 25 foot no disturbance

Wetlands Bylaws Town of Milton, Chapter 15, Section XI (Amended 2000)

SECTION XI. Non-Disturbance Zone

In order to preserve the quality of certain wetland resources and serve the interests protected by this Bylaw, it is necessary to restrict or limit activities adjacent to any bank, land under water bodies and waterways, and bordering vegetated wetlands, (collectively "resource areas"). To achieve these objectives, a Zone of Non-Disturbance (the "Zone") is hereby established to create a boundary or buffer between the activity proposed and the resource area to be protected.

- (a) The Zone shall extend a distance of twenty-five (25) feet from the edge of the resource area on or adjacent to any proposed to be altered.
 - (b) No person shall engage in any activity within a Zone that alters the Zone or any land, water, animal life within the Zone.
 - (c) Notwithstanding subsection (b) above, a person may engage in water-dependent activities within the Zone (including, but not limited to, construction, maintenance and repair of marinas, docks and wharves) without seeking relief from this Section XI.
 - (d) The Commission may grant relief from this Section XI only if the Commission finds that the granting of such relief will not have a significant adverse impact upon the interests protected by this Bylaw. Such a finding requires an affirmative vote of a majority of the quorum present for the vote.
-

Natick *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 25 foot no disturbance
40 foot no build
100 foot no disturbance (vernal pool)

Wetlands Protection Bylaw Town of Natick, Section 2.6.2(Adopted 2002, on website August 2004)

2.6.2 – No Disturbance and No Build Zones. No Alteration shall occur within a No Disturbance Zone, unless otherwise provided in a permit issued under Section 2. Lands within a No Build Zone may be cleared of vegetation to the extent necessary to construct a permitted Structure located outside of such No Build Zone and the adjacent No Disturbance Zone; provided however that once such Structure is completed, no further Alteration, other than the growing of vegetation, shall occur in the No Build Zone. The Commission may require, as a condition of a permit issued hereunder, that deeds conveying any portion of the previously cleared No Build Zone contain a restriction running in perpetuity preventing any further Alteration in such No Build Zone upon completion of such nearby construction.

Wetlands Protection Bylaw Town of Natick, Section 2.2(Adopted 2002, on website August 2004)

2.2 - Definitions

No Build Zone. Lands within 15 feet of any No Disturbance Zone.

No Disturbance Zone. Lands within 25 feet of any Protected Resource Area except floodplain and Riverfront Area.

Wetland Protection Bylaw & Rules and Regulations, Section 1.2 (On Natick website August 2004)

1.2 Areas Subject to Protection Under the Bylaw

The Bylaw protects the following resource areas in addition to the areas protected by the Massachusetts Wetlands Protection Act (M.G.L. Ch. 131, Sec. 40) (hereinafter referred to as the "Act") :

Any freshwater wetland, bank, beach, flat, marsh, swamp, wet meadow, or bog bordering on any creek, river, perennial stream, intermittent stream, pond, lake, or reservoir and any vernal pool, Riverfront Area, floodplain, isolated wetland, lands under any of the water bodies listed above, and lands subject to flooding or inundation by groundwater, surface water or storm water flow.

(Collectively the Protected Resource Areas).

The areas subject to protection under the Bylaw differ from those protected by the Act in that additional areas are protected by the Bylaw. The additional areas subject to protection under the Bylaw include all intermittent streams, land subject to flooding or inundation by groundwater, surface water, or storm flow, isolated wetlands, and all vernal pools.

A buffer zone of 100 ft. around any resource area (except Riverfront Area and 100-year floodplain) is subject to regulation under the Bylaw. Within this buffer zone, setbacks from the edge of Protected Resource Areas are defined. These regulations establish minimum setbacks referred to herein as No Build Zones and No Disturbance Zones. Under the regulations, the commission shall consider whether activities within the buffer zone will likely affect the Protected Resource Areas and will presume that projects that work within specified setbacks from the wetland will so affect the wetlands. This presumption is rebuttable and may be overcome upon a clear showing by a preponderance of the evidence that the nature of the proposed work, special design measures, construction controls and/or site conditions which exceed the norm for work anywhere within the Buffer Zone will prevent alteration of the protected resource area.

Wetland Protection Bylaw & Rules and Regulations, Section 4.4 (On Natick website August 2004)

4.4 LANDS WITHIN 100 FEET

The land area within 100 feet of any freshwater wetland; marshes; wet meadows; bogs; swamps; vernal pools; banks; reservoirs; lakes; ponds; rivers; streams; creeks; beaches; land under water bodies; or surface water is subject to regulation under the Bylaw. Lands within 100 feet of protected resource areas are presumed important to the protection of these resources because activities undertaken in close proximity to wetlands and other resources have a high likelihood of adverse impact upon the wetland or other resource, either immediately, as a consequence of construction, or over time, as a consequence of daily operation or existence of the activities. These adverse impacts from construction and use can include, without limitation, erosion, siltation, loss of groundwater recharge, poor water quality, and harm to wildlife habitat. For this reason these buffer zone areas are a valuable resource under this Bylaw.

The following restrictions are intended to represent the limits beyond which the ability of the protected resource area to function is presumed to be impaired. The presumption may be overcome by a clear showing that the ability of the resource area to function will not be impaired.

No Disturbance Zone

The Commission will enforce a No Disturbance Zone measuring 25 feet (measured horizontally) from all resource area boundaries (except riverfront and floodplain). This is an area in which virtually no activities or work, other than passive passage, are permitted (i.e. Boardwalk). No vegetation may be disturbed, leaf litter and debris shall remain in place, and no dumping of grass clippings, brush, leaves or any other debris or trash is allowed. The no disturbance area should remain unchanged from its pre-project state (unless the Commission grants approval to an applicant's proposal to restore a previously altered area). The restrictions associated with a designated No Disturbance Zone shall not be lifted with the issuance of a Certificate of Compliance, but shall remain in force. Where a prior existing structure protrudes into, or a prior existing alteration exists in a No Disturbance Zone, the Commission may permit the extension of such non-conforming structure into, or further alteration in such zone in accordance with its Rules and Regulations.

No Build Zone

The No Build Zone extends 15 feet (measured horizontally) from the edge of the (25-foot) No Disturbance Zone, in the direction upland or away from the resource area. This is an area where no structures are allowed to be placed or constructed. Prohibited structures include buildings, houses, barns, garages, and sheds. Items such as fences, retaining walls, decks, patios, gazebos, lawn furniture, children's toys such as sandboxes and swing-sets, rip-rapped areas, boardwalks, driveways, parking areas and the like are not considered "structures" for the purposes of these regulations. The restrictions associated with a designated No Build Zone shall not be lifted with the issuance of a Certificate of Compliance, but shall remain in force. Where a prior existing structure protrudes into, or a prior existing alteration exists in a No Build Zone, the Commission may permit the extension of such non-conforming structure into, or further alteration in such zone in accordance with its Rules and Regulations.

100-foot of Vernal Pool

The Commission will enforce a No Disturbance Zone measuring at least 100 feet (measured horizontally) from all Vernal Pools. This is an area in which virtually no activities or work, other than passive passage, are permitted. The no disturbance area should remain unchanged from its pre-project state (unless the Commission grants approval to an applicant's proposal to restore a previously altered area). Where a prior existing structure protrudes into, or

a prior existing alteration exists within the 100-foot Buffer Zone of a Vernal Pool, the Commission may permit the extension of such non-conforming structure into, or further alteration within the 100-foot Buffer Zone of a Vernal Pool in accordance with its Rules and Regulations.

Considerations in Setting Disturbance Restrictions

It is presumed that prohibited activities within the No Disturbance Zone, No Build Zone, and within the 100-foot Buffer Zone to Vernal Pools will result in alteration of the resource area. This presumption is rebuttable and may be overcome upon a showing by clear and convincing evidence that the nature of the proposed work, special design measures, construction controls, or site conditions will prevent alteration of the resource area, and will cause no significant harm to the areas or values protected by the Bylaw. Overcoming this presumption is to be granted only in rare and unusual cases.

In considering designation of buffer zone disturbance areas, the types of work and activities allowable, and conditions to apply, the Conservation Commission shall consider, in addition to other relevant criteria consistent with the wetland values:

1. Values and Functions of the Resource Area

The quantity and quality of resource values and functions shall be considered in placing conditions on buffer zone work. Some isolated land subject to flooding, for example, can serve for temporary flood storage only. Minimal buffer zone restrictions within several feet of the resource may be necessary under such circumstances only to prevent erosion.

Other isolated land subject to flooding can provide vernal pool habitat. It might also provide important flood storage capacity and intersect ground water. In such instances significant buffer zone restrictions shall be appropriate because a larger number of functions are involved and some functions, such as habitat, are more sensitive to buffer zone activity and require protection without exception. If rare or endangered species were found within a project area then still greater levels of restrictions would be appropriate, with no disturbance being allowed.

2. Pre-Project Characteristics of the Site

Ground slope, soil conditions, vegetation, and prior disturbance are just a few of the site specific characteristics that shall be considered in setting conditions for work in the buffer zone.

For example land that slopes toward a wetland demands greater restrictions on work and activity and larger no-disturbance distances to prevent pollution and silt from stormwater runoff from harming wetlands values than does land which slopes away from a wetland. Steeper slopes imply greater restrictions.

3. The Character of the Work or Activities Proposed and Alternatives

The applicant shall carry the burden of proof for demonstrating to the Commission's satisfaction that the proposed work or activities in the buffer zone are necessary and that reasonable alternatives, including reducing the scale and scope of the project, do not exist. The Commission shall consider the specific characteristics of the work proposed for immediate and cumulative impact on the wetland resource.

Needham

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

25 foot no disturbance
100 foot no disturbance (vernal pool)

The Commission's regulations under the Bylaw require that any construction within the Buffer Zone must be designed to preserve a minimum of 25 feet of undisturbed natural vegetation and soils adjacent to a waterbody, bank or other wetland. No activities are allowed within 25 feet of the edge of a waterbody or vegetated wetland unless:

- (a) The area where work is proposed is already disturbed and is a lawn, parking lot, or driveway; and
- (b) The Commission issues a waiver after determining that the activity would serve a substantial public interest; that strict compliance would result in severe economic hardship; or that the buffer zone or adjacent wetland does not protect the public interests.

No activities are allowed within 100 feet of a vernal pool (an isolated wetland that provides essential breeding habitat for wood frogs, spotted salamanders, and certain other wildlife species).

In addition to these regulations, the Commission has also established a policy to protect the public's interests in Needham's wetlands. These interests are primarily met by protecting trees and other natural vegetation within the Buffer Zone and by protecting the ability of the Buffer Zone to infiltrate precipitation. For these reasons, the Commission's policy is to protect natural vegetation within the Buffer Zone and to permit disturbance (grading, excavating, erection of

structures) within the wetland Buffer Zone only if it meets one of these criteria: the activity is more than 25 feet from the edge of a wetland, but located entirely within a lawn and does not decrease infiltration; or the activity is more than 50 feet from the edge of a wetland, preserves at least 50 feet of undisturbed vegetation adjacent to the wetland, and there are no alternatives to the proposed project that could be constructed further from the wetland. The burden of proof is on the Applicant to demonstrate that these criteria have been met.

(Needham Conservation Commission Wetland Buffer Zone Regulations and Policy)

Needham does allow a waiver of these provision, but it is the applicant's responsibility to prove that they do not apply.

Newbury

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

Survey received from Doug Packer, Conservation Agent, Town of Newbury, on 5/22/05: "Yes, as a policy. Not a regulation or bylaw."

There is a no-construction zone on coastal dunes and beaches. The setback distance is equal to thirty times the average historical erosion rate of the shoreline. On 12/7/04, the conservation agent emailed that the setback distance is determined using the Massachusetts Office of Coastal Zone Management's shoreline change map.

Variances to the conditions placed on construction within 200 feet of the barrier beach can be granted by the commission after a public hearing.

"In areas where there are coastal banks or primary or frontal dunes, all new buildings and structures shall be set back from the beach dune interface at a distance equal to thirty times the average historical erosion rate as shown by the most current CZM shoreline change map." From the Town of Newbury Wetlands Bylaws, Section 94-3(G),(Adopted 2001).

"95-4. Variance.

A. The Conservation Commission may grant a variance from these special requirements when it finds after opportunity for public hearing that:

- (1) there are no reasonable conditions or alternatives that would allow the project to proceed in compliance with this Bylaw; and
- (2) mitigating measures are proposed that will allow the project to be conditioned so as to contribute to the protection of the wetland resource areas located on the barrier beach; and
- (3) the variance is necessary to accommodate an overriding community public interest or to avoid a decision that so restricts the use of the property as to constitute an unconstitutional taking without compensation.

B. A request for a variance shall be made in writing and shall include, at a minimum the following information:

- (1) a description of alternatives explored that would allow the project to proceed in compliance with this Bylaw and an explanation of why each is unreasonable; and
- (2) a description of the mitigating measures to be used to contribute to the protection of the wetland resources located on the barrier beach;
- (3) evidence that an overriding public interest is associated with the project which justifies waiver of these requirements or evidence that the decision on this permit application so restricts the use of the land that it constitutes an unconstitutional taking without compensation."

From the Town of Newbury Wetlands Bylaws, Section 94-4, (Adopted 2001).

-----Original Message-----

From: Conservation Commission [mailto:conscom@townofnewbury.org]

Sent: Tuesday, December 07, 2004 9:57 AM

To: adriana@pioneerinstitute.org

Cc: Conservation Commission

Subject: Re: Quick Question

Adriana,

Thank you for your interest. With regard to your question, it is project specific. The figures are taken from the shoreline change map printed by the Massachusetts Office of Coastal Zone Management; Plum Island North is C-4.

I hope that this addresses your question.

Regards,
Doug Packer

Conservation Agent
----- Original Message -----
From: Adriana Nunez <adriana@pioneerinstitute.org>
To: <Conscom@townofnewbury.org>
Sent: Monday, December 06, 2004 3:26 PM
Subject: Quick Question

[...]
>
> Your Wetlands Protection Bylaw states that construction must be setback 30
> times the average erosion rate from the shoreline of a barrier beach. How
> many feet is that?
>
> Thank you for your assistance. I look forward to hearing from you.
>
> Sincerely,
>>
> Adriana C. Nunez
> Research Assistant
> Initiative on Local Housing Regulations
> Pioneer Institute
> 85 Devonshire St
> Boston, MA 02108
> (T)617-723-2277
> (F)617-723-1880

Newburyport *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No Survey received from Newburyport Conservation Administrator on 5/4/05:

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

"No, only velocity zones from 1985 FEMA map."

On 11/16/04 the researcher called to clarify what distance was equal to 30 times the average yearly historical erosion rate. The agent told the researcher that essentially no development was permitted on the southeast corner of Plum Island.

"In areas where there are coastal banks or primary or frontal dunes, all new building and structures shall be set back from the beach dune interface at a distance equal to thirty times the average yearly historical erosion as shown by the most current CZM shoreline change map."

From The City of Newburyport's Wetlands Ordinance, Section III (G) (Adopted 2001).

Newton *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No

Norfolk *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 50 feet no build

According to Marie Simpson, Norfolk Conservation Agent, in a 8/3/04 conversation, the Norfolk wetlands regulations create a 50 foot "no build" zone around protected resource areas.

North Andover *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes North Andover Wetlands Protection Regulation 2.0(4)

- 25' No-Disturbance Zone
- 50' No-Build Zone
- 50' Ephemeral Pool No-Disturbance Zone
- 75' Ephemeral Pool No-Build Zone

25' No-Disturbance Zone: is that portion of the Buffer Zone which extends 25' from the edge of those wetland resource areas identified in Section 1.3, however, it is possible, that these resource areas will overlap in some instances (e.g. Riverfront Area and Land Subject to Flooding). Disturbance of any kind is prohibited within this Zone including but not limited to grading, landscaping, vegetation removal, dumping of landscaping debris, pruning, filling, excavating, roadway construction and/or driveway construction.

50' No-Build Zone: is that portion of the Buffer Zone which extends 50' from the edge of those wetland resource areas identified in Section 1.3, however, it is possible that these resource areas will overlap in some instances (e.g. Riverfront Area and Land Subject to Flooding). Construction of any kind is prohibited within this Zone including but not limited to foundations associated with single family homes, multi-family dwellings, commercial and/or industrial buildings, porches, decks, (i.e. footing, piling, sonotube, patios, house additions, building additions, pools, septic systems and sheds. Driveways, roadways, retaining walls and landscape boulder walls may be allowed in the 50' no-build zone when no other feasible location or alternative means of access exists.

50' Ephemeral Pool No-Disturbance Zone: is that portion of the Buffer which extends 50' from the edge of an Ephemeral Pool which is situated in an upland location or, in situations where a wetland resource area encompasses the Pool, that area which extends 50' from the edge of Ephemeral Pool Habitat (see definition of Ephemeral Pool Habitat and Section 3.1). Disturbance of any kind is prohibited within this Zone including but not limited to grading, landscaping, vegetation removal, pruning, filling, excavating, roadway construction, and/or driveway construction.

75' Ephemeral Pool No-Build Zone: is that portion of the Buffer Zone which extends 75' from the edge of the Ephemeral Pool which is situated in an upland location or, in situations where a wetland resource area encompasses the Pool that area which extends 75' from the edge of Ephemeral Pool Habitat (see definition of Ephemeral Pool Habitat and Section 3.1 of the Regulations). Construction of any kind is prohibited within this Zone including, but not limited to foundations associated with single family homes, multi-family dwellings, commercial and/or industrial buildings, porches, decks (i.e. footing, piling, sonotube), patios, house additions, building additions, pools, septic systems, and sheds. Driveways, roadways retaining walls and landscape boulder walls may be allowed in the 75' Ephemeral Pool No-Build Zone when no other feasible location or alternative means of access exists. Any permitted work shall not obstruct the migratory pathways of Ephemeral Pool breeders such as Ambystomid salamanders and wood frogs.

There are waiver provisions for no disturbance and no build zones.

From Section 5.0 Waiver Provisions and Alternatives Analysis Requirements,
"The performance standards for wetland resource areas have been created to ensure that the interested of the Act and Bylaw are adequately protected. The Commission recognizes that, in certain situations, a waiver of a specific wetland resource are performance standard may be appropriate for a particular project when the waiver is consistent with the intent and purpose of the Bylaw and these Regulations..."

(North Andover Wetlands Protection Regulations, Adopted 1998, Amended 2003)

North Reading *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes North Reading Conservation Rules and Regulations, section 4.7 (Adopted 1993, Revised 2001)

4.7 LANDS WITHIN 100 FEET

... In order to provide for the protection of the above protected resource area, the following activities are prohibited within the land within 100 feet:

- (a) Any activity within 12 feet of the vegetated wetland resource area...
- (d) Altering more than 75% of the protect "lands within 100' resource area on any lot;
- (e) Altering the protected resources around vernal pools shall be made on a case by case basis;

Researcher contacted the Conservation Commission on 12/20/04 to inquire about waivers. Commission said the requirements are "strict" in the area 12 feet from a resource area.

Northborough *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 15 foot no disturbance
 30 foot no build

The town engineer (11/12/04) said that there is a 30 foot no structure zone and a 15 foot no disturb zone in Section 4.2.3 of the Northborough Regulations.

"No foundation, building, road, sidewalk, or other permanent structure shall be place within thirty (30) feet of any resource area. Furthermore, no grading, filing, excavation, removal of vegetation or other construction activity shall be allowed within fifteen (15) feet of said resource areas.

Notwithstanding the above, the Commission may allow work closer to resource areas is needed: (a) to provide access to an area where an alteration of BVW has been allowed; (b) if the work qualifies as a limited project (310 CMR 10.53 (3) as amended) or (c) for storm water outlet structures. In other projects the Commission may allow work closer to a resource are if the applicant demonstrates: (1) alternatives have been considered and in the judgment of the Commission no practical alternative is available; (2) project scope and design minimize work In close proximity to resource areas; (3) site conditions (including but not limited to slope, soil type and hydrology) will allow prevention of wetland damage from such work; and (4) such work will not lead to encroachment on the resource area after completion of the project. For projects involving steep slopes, highly erodable soils, extensive disturbed areas, or hydrologic conditions likely to promote significant erosion, the Commission may require a wider undisturbed buffer to ensure protection of wetland resource areas. Furthermore, the presumption of wetland resource alteration from fertilizer and pesticide may be overcome by providing qualified technical data to the Commission indicating that the chemical products will not alter wetland resource areas." From the Town of Northborough Wetlands Bylaw and Regulations, Section 1.3 (Adopted 1993, Amended 2000).

Northbridge *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes The researcher did not find any reference to limited use zones in the wetlands bylaws and thus determined it to be the same as the state. However, Bob Anderson, member of the Conservation Commission, (10/25/04) said that the town of Northbridge aims to maintain a 25 foot no disturbance buffer, unless there are no other feasible alternatives. However, this policy is not in writing.

Norwell

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

The Norwell wetlands regulations contains a "Fifty Foot Buffer Strip Regulation" that reads in part: "No activity or alteration shall be permitted within a fifty foot (50') buffer strip between a bordering vegetated wetland or isolated wetland, and any proposed site disturbance.

Prohibited activities include, but are not limited to, new construction (with the exception of water dependent structures approved by the Commission) of buildings, sheds, driveways, and alterations to existing structures; or activities resulting in the removal, filling or altering of land within the buffer zone adjacent to a bordering vegetated wetland or isolated wetland, as defined by this bylaw regulation.

This regulation shall not be constructed to preclude maintenance of an already existing structure within the fifty foot (50') buffer strip.

The Norwell Conservation Commission may allow the prohibited activities when the applicant makes a clear and convincing showing that the proposed work or its natural and consequential impacts and effects will not adversely affect the wetlands."

(Norwell Conservation Commission Rules and Regulations for Town of Norwell Wetlands Bylaw Article XVI-a, Amended 2000)

Norwood

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

25 foot no disturbance 50 foot no build
variances-yes

According to Al Goetz, Norwood Conservation Commission Administrator, (6/30/04) the wetland regulations create both a no disturbance and a no build zone.

On 12/22/04 the researcher spoke to Al Goetz, the town's conservation agent. He told the researcher that no regulation was set in stone and that town and developers were on a two way street. The researcher concluded that variances could be obtained in some instances.

Peabody

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

Ordinance Establishing the Wetlands and Rivers Protection Regulations in the City of Peabody, Chapter 32 of the Code of the City of Peabody, Section 32-33(Adopted, 1986, as amended)

Sec. 32-33. No Disturb Zone Presumption

Lands within two hundred (200) feet of rivers, streams, creeks, and brooks, and lands within one hundred (100) feet of all other resource areas, are presumed important to the protection of these resources because activities undertaken in close proximity to resource areas are presumed to result in alteration of the resource area and to have adverse impact upon the wetland values protected by this ordinance, either immediately, as a consequence of construction, or over time, as a consequence of daily operation or existence of the activities. These adverse impacts from construction and use can include, without limitation, erosion, siltation, loss or impairment of groundwater recharge or flood control, poor water quality, and loss of wildlife habitat. The Commission, therefore, may require that the applicant maintain a strip or buffer of continuous, undisturbed vegetative cover within 200 feet of resource areas defined in Sec. 32-2 Definitions Resource Area (I), and within 100 feet of resource areas defined in Sec. 32-2 Definitions Resource Area (A-H), respectively, unless the applicant convinces the Commission by a preponderance of the credible evidence that the area or part of it may be disturbed without harm to the wetland values protected by this ordinance. Said buffer shall be known as the "No Disturb Zone." Within the No Disturb Zone established by the Commission, no grading, planting, site work, construction, or storage of materials is allowed. Vegetation in the No Disturb Zone shall not be cut or trimmed in any manner.

In the review of proposed work within 200 feet of resource areas defined in Sec. 32-2 Definitions Resource Area (I), and within 100 feet of resource areas defined in Sec. 32-2 Definitions Resource Area (A-H), no permit issued hereunder shall permit any activities unless the applicant, in addition to meeting the otherwise applicable requirements of this ordinance, has proved by a preponderance of the evidence that 1) there is no technically demonstrated feasible alternative to the project with less adverse effects and that 2) such activities, including proposed mitigation measures, will have no significant adverse impact on the wetland values protected by this ordinance. The closer an activity is

proposed to a resource area, the more scrutiny will be given to the potential impacts of a proposed project.

No activity which will result in the alteration of land within the presumptive No Disturb Zone shall be permitted by the Conservation Commission with the following exceptions:

A Planting of native vegetation or habitat management techniques designed to enhance the wetland values protected by the Bylaw;

B Construction and maintenance of unpaved pedestrian access paths not more than 4' in width;

C Maintenance of existing structures, utilities, stormwater management structures and paved areas;

D Construction and maintenance of water dependent structures and uses;

E Vista pruning and removal of dead and diseased vegetation consistent with Conservation Commission standards;

F Construction of new utility lines where the proposed route is the best environmental alternative;

G Septic system maintenance and, if a system has failed, repair/replacement meeting state/local standards where the maximum feasible buffer is maintained;

H Construction of accessory structures/uses associated with lawfully existing single family houses where the Conservation Commission finds that alternatives outside the buffer area are not available; the size and impacts of the proposed structure/use have been minimized; and the structure/use is located as far from the resource as possible;

I Where a buffer zone is already altered such that the required buffer cannot be provided without removal of structures and/or pavement, this requirement may be modified by the Conservation Commission provided that it finds that the proposed alteration will not increase adverse impacts on that specific portion of the buffer area or associated wetland and that there is no technically demonstrated feasible construction alternative;

J Where a lot is located entirely within buffer area, the Commission may permit activities within the buffer area when the applicant has demonstrated that the proposed work has been designed to minimize impacts to the buffer area. As mitigation, the Commission may require the applicant to plant or maintain a naturally vegetated buffer of the maximum feasible width given the size, topography, and configuration of the lot.

Ordinance Establishing the Wetlands and Rivers Protection Regulations in the City of Peabody, Chapter 32 of the Code of the City of Peabody, Article XIV Variances (Adopted, 1986, as amended)

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ARTICLE XIV. VARIANCES

Sec. 32-60. Generally

The Conservation Commission may, in its discretion, grant variances from the specific requirements of these regulations pursuant to this Section. The Conservation Commission may grant a variance from these regulations when an overriding public interest is demonstrated or when it is necessary to avoid so restricting the use of the property as to constitute an unconstitutional taking without compensation pursuant to Federal and State laws. The intent of this section is to ensure that reasonable use may be made of such property; however, the extent of use shall be limited in so far as is necessary to protect the wetland values protected by this ordinance, and to ensure that there is no foreseeable danger to the public health or safety. In all cases, the burden of proof shall be on the applicant to demonstrate maximum feasible compliance with the requirements of this ordinance. The Conservation Commission may require mitigation to offset adverse impacts to resource areas protected by this ordinance.

The Commission may waive the application of any performance standard herein when it finds, after opportunity for a hearing that:

A There are no reasonable conditions or alternatives that would allow the project to proceed in compliance with these regulations;

B Mitigating measures are proposed that will allow the project to be conditioned so as to contribute to the protection of the wetland values protected by this ordinance; and

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

Sec. 32-61. Procedure

A request for a variance or waiver shall be made in writing and shall include, at a minimum, the following information:

A A description of the alternatives explored that would allow the project to proceed in compliance with the performance standards in these regulations and an explanation of why each is not feasible;

B A description of the mitigating measures to be used to contribute to the protection of the wetland values protected by this ordinance.

C Evidence that an overriding public interest is associated with the project which justifies

modifying one or more performance standards in these regulations, or evidence that the decision regarding the permit application would so restrict the use of the land that it constitutes an unconstitutional taking without compensation.

D In the event a taking claim is being made, the following additional information shall be submitted:

1. Documentation that the subject property is legally and/or equitably owned by the applicant, including the date of acquisition. Also, identification of all property in contiguous ownership, including contiguous properties in which the Applicant has a present, future or past fee interest or beneficial interest and documentation of the assessed value of the said contiguous property.

2. Documentation of the assessed value of the property subject to regulation as well as documentation of acquisition costs, proceeds received to date, expected proceeds (including copies of purchase and sales agreements, expenditures, and any other financial and economic data relevant to the waiver/variance request.

3. Documentation of the value of the loss alleged to result from compliance with the relevant performance standards from which a waiver/variance is sought.

E The request for waiver/variance shall be sent to the Commission by certified mail or hand delivered and a copy thereof shall at the same time be sent by certified mail or hand delivered to any other parties in interest.

F Within 21 days of the close of the public hearing, the Commission shall issue a decision as to whether to grant the waiver/variance request. Such decision shall set forth the findings as required herein.

Pepperell

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes 50 foot no disturbance

There is a 50-foot no disturbance setback from state-certified vernal pools and wetland resource areas. From section 2 of the bylaw, "[r]esource protection setback: in addition to the requirements of the Wetlands Protection Act, there shall be a 50-foot wide undisturbed, vegetated strip of naturally occurring plant species maintained between certified vernal pools (Certified by Massachusetts Division of Fisheries and Wildlife) or wetland resource areas (310 CMR 10.02(1), excluding land subject to flooding and riverfront area) and activities, as defined in the Wetlands Protection Act Regulations."

(Town of Pepperell Wetlands Protection Bylaw)

The researcher did not find any reference to waiver provisions.

Plainville

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes 35 foot - no construction

There is a 35 foot no construction zone. The conservation agent (12/2/04) said that by January, the regulations will be changed to include the Commission's defacto policy of a 35 foot disturbance zone, with variance provisions.

"The following minimums for construction include housing, commercial buildings, garages, and other similar structures, but exclude driveways, fences, and water dependent structures such as piers and marina facilities.

4.1 From any surface water body, 100 ft. horizontally from high water line, 2 ft vertically.

4.2 From any wetlands, 35 ft. horizontally, 2 ft. vertically

4.3 No underground storage of gasoline, oil, or other fuels and hazardous materials within 100 ft. of any surface water or wetland.

4.4 No on-site septic systems within 100 ft. of any surface water or wetland." From the Submission Guidelines for Town of Plainville Wetland Protection Bylaw, Section 4.

"The Conservation Commission may vary these regulations at its discretion after making a finding that proposed work will not cause significant adverse impact on the interests protected by section 23 of the Bylaws of the Town of Plainville." From the Submission Guidelines for Town of Plainville Wetland Protection Bylaw, Section 9.

Plymouth

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes 25 foot no disturbance

From the regulations, Section 5. Performance Standards, H. Buffer Zone Protection

"1. Bordering any wetland, the Commission may require a zone of natural vegetation of sufficient width to assure that silt, soil, fertilizer in solution, organic chemicals, herbicides, organic manures, oils or petroleum products which may be carried by surface runoff, shall not reach that wetland, but instead will be trapped by the natural mulch, soil and roots. Under most conditions, a zone width of 25 feet would be considered sufficient to accomplish this purpose, however, that width would depend on slope, soil type, ground cover and the project proposed. In addition to the above, the Commission may require a zone of natural vegetation of sufficient width, in areas with mapped endangered species, that the habitat is protected and the species requirements are met. Under most conditions, a zone width of fifty (50) feet would be considered sufficient to accomplish this purpose, however, that width would depend on the type of habitat for plant species, and the vegetation types and area needed by the animal species for foot, shelter, breeding, migration, and/or overwintering. The Commission shall encourage stabilization of upgradient areas beyond the 100-foot line.

2. Notwithstanding the provisions of Section 5(A) through (S) and in particular Section 5(H)(1), certain activities are allowed provided the activity is not conducted within any resource area if:

- (a) Alteration within the buffer zone is less than 5000 square feet or 10% of the buffer zone on the lot, whichever is less;
- (b) At a minimum, a 50-foot wide area of undisturbed vegetation in the buffer zone along the resource area is provided;
- (c) The buffer zone does not contain estimated wildlife habitat of rare species;
- (d) Stormwater is managed accordingly to MA DEP standards;
- (e) Erosion and sedimentation controls are provided at the limit of work to protect the resource area;
- (f) The buffer zone does not border an Outstanding Resource Water, vernal pool, public water supply or ACEC;
- (g) A site visit is conducted to verify the project is limited to the buffer zone and the criteria are met."

(Rules and Regulations for Plymouth Wetlands Protection Bylaw, Article #27, Adopted 1999, Amended 2001)

Quincy

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

No There is no reference in the ordinance or regulations of such zones.

Reading

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes 25 foot no disturbance

Town of Reading, Wetlands Protection Regulations, Section 3, subsection D (2002).

D. Zone of Natural Vegetation

1. Bordering any wetland, the Commission may require a Zone of Natural Vegetation (ZNV) of sufficient width and vegetative community type to assure that silt, soil, fertilizer in solution, organic chemicals, herbicides, organic manures, oils or petroleum products which may be carried by surface run-off shall not reach that wetland, but instead will be trapped by the natural mulch, soil and roots; and that light levels and temperature shall be moderated; and that dispersal of seeds of exotic or otherwise disruptive plant species, such as phragmites reed and purple loosestrife (*Lythrum salicaria*) shall be avoided; and that other alterations shall be avoided or mitigated within the wetland.

2. Under most conditions, a zone width of a minimum of twenty-five feet would be considered sufficient to accomplish this purpose. A wider ZNV may be required, depending on specific site conditions, such as grades, soil permeability or other impact potential.

3. Excavations for proposed structures extend beyond the finished limits of the structures. The extent of excavation varies depending on: the nature of the structure; the soil; depth of excavation; type of equipment used; construction techniques; slope; incidence of precipitation; groundwater flow; soil saturation and freeze/thaw cycles; existing vegetative cover; or other ground cover. An area of curtilage is developed around structures as a result of access for finish work, maintenance, foot traffic, and machine travel such as lawnmowers; and to provide a clear area for security; and to prevent moisture damage and physical damage from shading and plant structures such as tree limbs.

SECTION 3 PERFORMANCE STANDARDS FOR RESOURCE AREAS

D. Zone of Natural Vegetation, Continued

4. To protect the integrity of the Zone of Natural Vegetation, including the associated root system and canopy, no new foundations, including footings, frost walls or other in-ground structures, shall be permitted within ten feet of the ZNV. Depending on special site conditions, a greater distance may be required. Associated structures, including but not limited to the following: cantilevered structures, bay windows, eaves, and, garrisons, or other overhangs, may protrude to no closer than seven feet from the ZNV.

5. Notwithstanding the standards of the preceding paragraph, the Commission may grant a reduced setback distance of structures from the ZNV as a

consideration of specific site conditions, such as limited vegetative cover or an existing developed condition, and provided that a permanent physical delineation, such as a solid hedge or an appropriate permanent fence or wall, of sufficient height, shall be provided and shall be maintained between the structure and the ZNV.

6. Permanent markers shall be installed and maintained in convenient locations along the limits of the ZNV, such as at any corners or along a radius, no more than fifty feet apart. Markers may be stone or concrete bounds, metal pipes or rods, trees, shrubs or other structures as approved.

Revere *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No 6/24/04 email response from Mr. DeSantis, Chairman, Revere Conservation Commission.

The researcher found no reference to limited use zones in the wetlands bylaws.

Rockland *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No The researcher did not find any reference to limited use zones in the wetlands bylaw.

Rockport *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No No reference to "no build zones" in the wetlands bylaw.

Rowley *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 25-50 foot no cut/no disturbance zone

"No Cut/No Disturbance Zone shall be determined by a vote of the Commission and shall consist of an area, extending typically 25-50 feet from a resource area as specified in Section III (A) of this Bylaw, (but in no case extending beyond the 100 foot buffer zone), in which virtually no activities or work, other than the non-motorized passage, are permitted. This determination will be made in order to protect the interest and value enumerated in Section I of the Bylaw. Among other site-specific conditions set by the Commission, no vegetation may be disturbed. The no disturbance zone shall remain unchanged from its natural, vegetated stat. No Cut/No Disturbance zones exist only when ordered by a vote by the Commission on an application." From the Town of Rowley Wetlands Protection Bylaw, Section IV (Adopted 2003).

"The Commission may, at its discretion and for good cause shown, grant waivers from the requirement of one or more of the regulation or performance standards. Such waivers are intended to be granted only in rare and unusual cases and only when resource protections would be enhanced relative to preexisting conditions." From the Town of Rowley Wetlands Protection Bylaw, Section XVII (B) (Adopted 2003).

Salem *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No

Salisbury *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 25 foot no disturbance
40 foot no build

Variance provisions are not explicitly mentioned, but each project is considered on a case by case basis.

From Section 7 No Disturbance and No Build Zones,

"When proposing alterations within 50 feet of a wetland, the applicant must overcome a strong presumption of adverse impact on the adjacent wetlands and their functions and values. The Commission will require a 25-foot no disturbance zone extending from the edge of all wetland resource areas. No activity is allowed in the no-disturbance zone. Buildings/structures of any kind are also prohibited in the no-building zone. This includes, but is not limited to, home construction, porches, decks, additions, and sheds. Driveways and fences may be allowed in the no-build zone at the discretion of the Commission.

... Since the Commission cannot allow unregulated alterations of wetlands, these restricted zones will likely be imposed on all projects. The exact size of these zones will be made on a case-by-case basis, but to the maximum benefit to the wetland resource."

(Town of Salisbury Conservation By-Law Regulations, Adopted 1993).

Saugus *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes Answer based on 6/23/04 email response from Mr. Dame:

"Yes - 30 foot no disturb around wetlands"

"30 foot no disturb. presumption of significance can be overcome by a clear showing that avoidance of area is impossible due to hardship or topography, or that no significant impact will occur to wetland."

Scituate *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 125 foot no build (vernal pools)
50 foot no disturbance

The Scituate Wetlands Regulations, in Section 10.05.10.b.(2) states: "Standards and Limitations. In keeping with the foregoing, the Commission hereby establishes the following standards and limitations on significant activities within the 50-foot Buffer Strip as defined in Chapter 310 CMR 10.00:

(1) Buffer Strip: There shall be a continuous undisturbed Buffer Strip (hereafter referred to as the Buffer Strip), a minimum of 50 feet in width, from the edge of all areas subject to protection as defined in the regulations promulgated under Section 30700 of the Town of Scituate Code of Bylaws (with the exception of the Buffer Zone to Bordering Land Subject to Flooding, Isolated Land Subject to Flooding and Land Subject to Coastal Storm Flowage. As a general rule, the Buffer Strip shall be considered undisturbed if it is continuous, unaltered, and left in a natural state.

(2) Exceptions to the 50-Foot Buffer Strip. The foregoing notwithstanding, the Commission may find it appropriate to require a Buffer Strip of greater or less than 50 feet in width on a case-by-case basis. By allowing these exceptions to the 50-foot requirement, the Commission recognizes the need to account for site-specific variables that affect the pollutant removal capabilities of the Buffer Strip, such as slope, soil type, contributing land usage, and the surrounding patterns of land use. The applicant or the Commission must demonstrate the appropriateness of a Buffer Strip of a width other than 50 feet through the use of an appropriate buffer designation method."

In Section 10.05.6, vernal pools are given the following buffer zone/buffer strip:

"(6) The buffer zone for vernal pools shall be the area within a line parallel to the boundary of the vernal pool measuring 250 feet from that boundary; the buffer strip/no-build zone for a vernal pool shall be the area within a line parallel to the boundary of the vernal pool measuring 125 feet from that boundary."

(Town of Scituate Code of Bylaws SECTION 30770, Wetlands Protection Rules and Regulations, Amended 2003)

Seekonk

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes 25 foot no disturbance
50 foot no build

From Section 2.2.2.2 Buffer Strip of the Regulations, "[w]here an activity is proposed within the Buffer Zone to a wetland, vernal pool, bank or beach, or isolated land subject to flooding, the Commission shall require that a continuous Buffer Strip (at least 25 feet wide) of undisturbed, natural vegetation be maintained between the proposed activity and the resource areas(s). In the course of reviewing proposed activities within the buffer zone, the Commission may require that a buffer strip be created where none currently exists, where, in the judgment of the Commission, damage has occurred due to previous activities.

In designing a project to meet this performance standard, the applicant shall take into account not only proposed construction activity, but also realistic future use of the site. As an example, in the case of construction of a single-family residence, it shall be presumed that such future use includes a yard, and that the yard shall extend at least 25 feet horizontally from the structure, exclusive of any portion of the Buffer Strip. Typically, the Commission shall expect new structures sited at least 50 feet from wetland resource area(s), and that a Buffer Strip significantly greater than 25 feet will be provided where slopes exceed 25%.

When partial encroachment of proposed structures into the 25-foot "yard" setback is unavoidable, the applicant may mitigate the encroachment by increasing the Buffer Strip area by an amount equal to or greater than the encroachment into the "yard". The following guidelines are offered: (1) The encroachment should not exceed 10% of the total recommended "yard" setback for the lot; and (2) The encroachment should not exceed one quarter of the recommended width of the total setback from the resource area."

(Seekonk Conservation Commission Regulations, Adopted 1999, Amended 2003)

Sharon

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes 100 foot no build
50 foot no disturbance

RULES AND REGULATIONS OF THE SHARON CONSERVATION COMMISSION, Section 5.06 states, "Minimum Performance Standards

As set forth more specifically below, it is the intent of the Commission to protect, either by condition or by legal restriction, as much of the 100 foot buffer zone as possible. Regardless, the first 50 feet of the buffer zone closest to the wetland line will be considered by the Commission to be of primary concern within the buffer. This 50 foot strip will be regulated as though it were part of the Resource Area.

- (a) No Build Setback. 100 feet from any Resource Area.
- (b) No Disturb Setback.
 - i. A 25 to 50 foot minimum for previously developed lots where any alteration is proposed within an already disturbed area (a lawn area, for example). No additional alteration of the remaining undisturbed buffer will be permitted.
 - ii. A 50 foot minimum for new site development on previously undisturbed land area.
 - iii. A 75 foot minimum under any of the following circumstances:
 - A. the Commission identifies a critical wildlife, fish or plant habitat;
 - B. the Resource Area is located within a Water Resource Protection Overlay District, Zone II, or an ACEC;
 - C. the Resource Area includes a slope greater than 15%; or
 - D. the Commission otherwise identifies a sensitive receptor Resource Area.
- (c) These Rules and Regulations shall not be construed to preclude access paths, vista pruning or construction of water-dependent structures within the buffer zone, any of which may be permitted at the Commission's discretion."

Sherborn

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes According to Jean Bednor, conservation agent, there are a few minor exceptions, but generally there is no alteration allowed within 50 feet.

From the Town of Sherborn Wetland Regulations,
"3.4 No Alteration Zone

It is presumed that significant adverse effects on the interests protected by the Sherborn By-Law result from any filling, dredging, building upon or other alteration within a resource area or within a minimum of 50 feet horizontally outward from the upland edge of a resource area, unless the applicant

demonstrates by credible evidence that such significant adverse effect will not occur, and the Commission accepts and approves such evidence."

(Town of Sherborn Wetland Regulations, Adopted 1994, Amended 2001)

Shirley *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes No reference in the Shirley bylaw to limited use zones.

Survey received from Shirley Conservation Commission on 6/8/05 marks that the municipality does enforce "no build zones" within the buffer zone around the wetlands. Researcher does not know if this is a policy or if it was adopted in 2005.

Southborough *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 20 foot no disturbance

Section 3.2.3 of the Southborough Wetlands regulations reads in part: "No foundation, building, road, sidewalk or other permanent structure shall be placed within twenty (20) feet of said resource areas. Notwithstanding the above, the Commission may allow work closer to resource areas if needed: (a) to provide access to an area where alteration of a BVW has been allowed; (b) if the work qualifies as a limited project (310 CMR 10.53.3 as amended); or (c) for storm water structures. In other projects, the Commission may allow work within 20 feet of a resource area if the applicant demonstrates: (1) alternatives have been considered and in the judgment of the Commission no practical alternative is available; (2) project scope and design minimize work in close proximity to resource areas; (3) site conditions (including but not limited to slope, soil type, and hydrology) will allow prevention of wetland damage from such work; and (4) such work will not lead to encroachment on the resource area after completion of the project."

(Town of Southborough Wetlands Regulations, Adopted 2002)

Stoneham *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No The Bylaws do not yet have the zones defined. They do make mention of the fact they may need to establish zones, but since they do not have any regulations, zones have not yet been laid out.

Stoneham, Massachusetts Wetland Bylaw, Section VII (May 2004)

These adverse impacts from construction and use can include, without limitation, erosion, siltation, loss of groundwater recharge, poor water quality, and loss of wildlife habitat. The Commission may therefore establish performance standards for protection of such lands including without limitation strips of continuous, undisturbed vegetative cover within the 200 foot or 100 foot area, or other form of work limit or setback to buildings, roads, landscaping and other features, unless the applicant convinces the Commission that the area or part of it may be disturbed without harm to the values protected by the bylaw. The specific size and type of protected area may be established by regulations of the Commission.

Stow *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 35 foot no disturbance.

Section 5.4(A) of the Stow Wetlands Regulations reads:

"An undisturbed vegetative buffer of naturally occurring plant materials shall be left adjacent to all wetlands, water bodies, and watercourses to a minimum width of thirty-five (35) feet."

Sudbury *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes Up to 100 foot no disturbance

"Lands within 100 feet of wetlands resource areas and within 200 feet of perennial streams and rivers are presumed important to the protection of these resources because activities undertaken in close proximity to wetlands and other resources have a high likelihood of adverse impact upon the wetland or other resource, either immediately, as a consequence of construction, or over time, as a consequence of daily operation or existence of the activities. These adverse impacts from construction and use can include, without limitation, erosion, siltation, loss of groundwater recharge, poor water quality, and harm to wildlife habitat. For this reason these adjacent upland areas are a valuable resource under this Bylaw. The Commission therefore may require that the applicant maintain a strip of continuous, undisturbed vegetative cover in part or all of the adjacent upland resource area and set other conditions on this area, unless the applicant provides evidence deemed sufficient by the Commission that the area or part of it may be disturbed without harm to the values protected by the law."

(Town of Sudbury Wetlands Administration Bylaw, Adopted 1994, Amended 1998)

Debbie Dineen, Sudbury Conservation Coordinator, (8/13/04) said that this 100' foot no disturbance zone could be negotiated based upon the impact or lack thereof of work on species and habitats.

Sutton *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes From Section 7.2 Considerations in Setting Disturbance Restrictions, "in general, work and activity within 100 feet of wetlands is to be avoided and all reasonable alternatives pursued. The Commission's mission is to lessen and regulate any or all potential adverse impact(s)."

(Sutton Wetlands and Riverfront District Administration Bylaw and its Rules and Regulations, Adopted 1983, Adopted 2000)

7.1 Performance Standards and Design Criteria for Adjacent Upland Resources

"However, the Conservation Commission shall be entitled to consider requests for variances from these performance standards and design criteria, if for good and valuable consideration the applicant provides other forms of resource areas, such as but not necessarily limited to the setting of Conservation Restriction(s), formerly known as a "conservation easement(s)", pursuant to MGL c. 184, Sections 31-33.

Furthermore the Conservation Commission shall consider proposals for work in the adjacent upland resource area in terms of four broad forms of disturbance areas. This approach is intended to allow maximum flexibility for property use while maintaining adequate levels of resource protection by the creation of:

7.1.1 No Disturbance Area

This is an area where no activities or work, other than passive passage are permitted. No vegetation may be disturbed or cut, leaf litter and debris remains in place, no trees taller than 20 feet or greater than 10 inches in diameter may be felled. The no disturbance area should remain unchanged from its pre-project status. The Commission shall have sole, discretion in establishing the limit(s) of a strip(s) of continuous undisturbed vegetative cover. Value, for the purposes of the Bylaw, increases the closer any disturbance is to wetlands.

7.1.2 Temporary Disturbance Area

This is an area in the adjacent upland resource where temporary disturbance for a limited period of time is permitted, such as for regrading or travel by heavy machinery. Once the activity is completed, however, the area will be allowed to return to natural vegetation and function. Any subsequent disturbance or activity shall require a new filing. The Conservation Commission shall establish specific time frames and guideline conditions for allowing temporary disturbances as well as setting criteria for assessing the successful return of the adjacent upland resource area(s) to natural functions.

7.1.3 Limited Disturbance Area

This is an area in the adjacent upland resource where a limited set of activities and work is permitted in perpetuity. For example, recreational and work activities like understory clearing of poison ivy might be allowed, but no clearing of overstory and no planting of lawn. Unlimited (sustainable) harvesting of wood, composting of brush etc., and storing of firewood are other examples of limited activities allowed.

7.1.4 Permanent Disturbance Area

This is an area in the adjacent upland resource in which most, if not all, legal activities and permanent disturbances are permitted: houses, garages, sheds, porches, driveways, gardens, swimming pools, and lawns in the adjacent upland resource area(s) represent permanent disturbance areas.

Nevertheless, within the context of permanent disturbance the Conservation Commission may set specific standards and conditions in prohibiting or restricting those forms of work and activities in the adjacent upland resource area deemed potentially harmful to overall resource area functions and values, such as, but not limited to, the use of herbicides and pesticides, use of interceptor drains, installation of in-ground sprinkler systems for irrigating areas in the adjacent upland resource area, or any work that results, or may result in significant or adverse impact(s) on and/or net loss of wetlands."

Swansea

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

25 foot no disturbance

From 1.06 Performance Standards, Section J. Buffer Zone Protection, "1. Bordering any wetland, the Commission may require a zone of natural vegetation of sufficient width to assure that silt, soil, fertilizer in solutions, organic chemicals, herbicides, organic manure, oils or petroleum products which may be carried by surface runoff shall not reach that wetland, but instead shall be trapped by the natural mulch, soil and roots. Under most conditions, a zone of 25 feet would be considered sufficient to accomplish this purpose, however, the distance would depend on slope, soil type, ground cover and the project proposed. The Commission shall encourage stabilization of upgradient areas beyond the 100-foot line."

The projects that may be waived are called Limited Projects, and from Section 1.06, "H.Limited Projects

1.The Commission may issue an Order of Conditions permitting work which results in the loss of not more than (5000) square feet of wetland only under a limited project provided the following requirements are met:

- a.All design method of mitigation have been utilized to minimize the alteration of the wetlands
- b.There is no reasonable alternative to the proposed project.
- c.Replication and re-vegetation plans has been submitted under the criteria of sections 1.06I and 4.07 describing the construction of the amount of recreated wetland necessary to compensate for that portion which is proposed to be destroyed.
- d.Compensatory wetland area will be provided which in the judgment of the Commission will adequately replicate all of the wetland function to be lost. The minimum ratio shall be 1.5 replicated area to 1.0 area to be disturbed. (Amended March 25, 2002)

2.The project must be included in one of the following categories:

- a.Construction of new road drainage structures including culverts, catchbasins, drainage easements, ditches, watercourses and artificial water conveyances to ensure flow capacities.
- b.Construction of a new roadway or driveway of minimum legal and practical width acceptable to the Planning Board where reasonable alternative means of access from a public way to an upland area of the same owner is unavailable.
- c.New construction of underground and overhead public utilities, such as electrical distribution or transmission lines, or communication, sewer, water and natural gas lines, may be permitted, in accordance with the following general conditions and any additional conditions deemed necessary by the Commission:

- 1) The Commission may require a reasonable alternative route with fewer adverse effects.
- 2) The best available mitigating measures shall be used to minimize adverse effects during construction
- 3) All surface vegetation and contours of the area shall be substantially restored
- 4) All sewer lines shall be constructed to minimize inflow and leakage

3.Proposed roadway/driveway crossings of wetland areas shall include the following:

- a)Wetland replication which, in the determination of the Commission, will compensate for the wetland to be lost with respect to the wetlands values and area.
- b)Headwalls shall be required to minimize the amount of the wetland alteration.
- c)Such roadway or driveway shall be constructed in a manner, which does not restrict the flow of water.
- d)Use of multiple pipes laid side by side in a channel to convey water is not allowed."

(Rules and Regulations Under the Swansea Wetlands Protection Bylaw)

Taunton

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes 25 foot no disturbance

The city of Taunton has created "wetland protection zones" or WPZ. Essentially these zones range from 25 to 100 feet and are designed to limit activities close to the wetland.

From Section II Definitions, " 'Wetland Protection Zone' (WPZ) describes an area of no less than 25 feet and no more than 100 feet from the border of BVWs, vernal pools, lakes, ponds and ILSFs larger than a quarter acre-foot in size. This zone has been established to limit or prohibit activities that may have negative impact on resource areas. Such activities may include but are not limited to the following: clearing, filling, dredging, removal of vegetation, dumping or construction. The size of the WPZ will be determined by the nature of the project and the sensitivity of the area. ILSFs containing less than a quarter acre-foot do not have a protection zone. River front areas outside of the 200-foot outer riparian zone does not have a WPZ. WPZ greater than 25 feet minimum will be required in the following situations:

1. Large, multi-lot developments in undisturbed areas;
2. Projects in which a significant portion of the lot will be converted into impervious surface;
3. Areas in or near rare or endangered species;
4. Wildlife corridors;
5. Areas prone to flooding or excessive run-off.

Exemptions to the 25-foot minimum WPZ may be allowed in the following situations. In these cases the applicant will be expected to present an appropriate mitigation plan.

1. Work the Commission believes is in the interest of public safety (e.g., removal of hazards, clearing sight lines etc) or environmental protection.
2. ILSF of less than one-quarter acre-foot.
3. ILSF of greater than a quarter acre-foot the WPZ may be reduced to less than 25 feet if it can be demonstrated that they do not serve any other function than stormwater retention and recharge.
4. Under certain circumstance, the Commission may grandfather lots in existence prior to enactment of the Ordinance providing the applicant demonstrates, by a preponderance of evidence, the WPZ would represent a hardship and said hardship was not created by or with the consent and/or knowledge of the applicant."

(City of Taunton Conservation Ordinance Regulations)

Tewksbury *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 50 foot no build
25 foot no disturbance

Article 18.04.30 (6) of the Tewksbury town bylaws protects any "Buffer strip where an activity is proposed within the buffer zone, the Commission shall require the applicant to maintain a minimum continuous 25-foot wide buffer strip of undisturbed, natural vegetation between the proposed activity and the resource area(s). The Commission shall also require that the applicant site any proposed structure at least 50 feet from the resource area(s), providing for a further 25-foot "buffer strip" setback between the buffer strip and the structure. When partial encroachment into this 25-foot "buffer strip" setback is unavoidable, the applicant may mitigate this encroachment by increasing the size of the buffer strip area by an amount equal to or greater than the area of the encroachment, using the following guidelines:

- 1) The encroachment shall not exceed 10% of the total area of the "buffer strip" setback for the lot; and
- 2) The encroachment shall not exceed 25% of the recommended width of the total setback from the resource area.

The applicant shall demonstrate to the Commission's satisfaction that future use of the site is not likely to result in intrusion into, or alteration of, the buffer strip. The Commission may require the applicant to submit a use plan and narrative as part of that demonstration. At the Commission's request, the applicant shall demonstrate to the Commission's satisfaction that work or activities proposed at the edge of the buffer strip are necessary and that reasonable alternatives, including reducing the scale and scope of the project or adjusting other setbacks, do not exist.

For lots zoned General Residential (RG), the Commission may reduce or waive the requirements of the "buffer strip" setback for structures, after making every effort to preserve it.

The 25-foot buffer strip and 25-foot "buffer strip" setback shall not be required for the maintenance, repair, or replacement (without substantial enlargement unless required by law) of any existing and lawfully located structure, septic system, water line, utility line, or similar facility in those areas. In these cases, the Commission shall require the applicant to maintain a 10-foot wide buffer strip of undisturbed, natural vegetation between the proposed activity and the resource area(s). Whether a 10 foot or 25 foot buffer strip is required, the Commission shall not permit encroachment into the buffer strip other than as described in the above paragraph. The Commission is not to consider what is expedient for the applicant in its enforcement of the buffer strip provision of this by-law. . (Art. 36, ATM 2002)"

Topsfield *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 100 foot no disturbance

Regulation 10-4.e.1 states in part that: "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 be percolated into the ground. No work shall occur in the Setback Areas, except as provided pursuant to paragraph g and i."

Topsfield wetlands regulations 10-4 g and i detail the procedure for obtaining a waiver.

Townsend *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 35 foot no disturbance
50 foot no build

The researcher did not find any reference to limited use zones or waivers in the supplemental wetlands bylaws and regulations. However, the conservation administrator (10/28/04) said there is a very strict 35 foot no disturbance zone as well as a 50 foot no construction zone. She also added that the town tries to allow only one wetland crossing (i.e. road) for a new development, even if the development has distinct wetland resource areas.

Tyngsborough *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 50 foot no build
30 foot no disturbance

50' No Build Zone: Within 50' of a resource area, the Commission does not allow building of new structures or impervious surfaces.

30' No Touch Zone: Within 30' of a resource area, the Commission does not allow any disturbance of the land.

(From the Tyngsboro Conservation Commission Website <http://www.tyngsboroughmass.com/conservation.htm>)

Upton *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes The researcher found no reference to limited use zones in the bylaws. According to Margaret Carroll, conservation chair, (11/09/04) Upton tries to enforce a 30 foot no disturbance policy, but admits it is hard to enforce since it is not in the bylaw. Ms. Carroll added that it is likely for these limited use zones to be passed in the regulations early in 2005.

Walpole *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 25 foot no disturbance

The Walpole Wetlands Protection Bylaw states in Section 1.4.1 that: "No Alteration Zone- The Commission shall require the Applicant to maintain a twenty-five (25) foot wide contiguous, undisturbed vegetative buffer measured from, and parallel to, the wetland resource boundary, as a minimum. An Applicant may request a variation from the minimum twenty-five foot "no alteration zone". The Applicant shall provide to the Commission information and evidence of why a variation is needed, and how the Applicant will meet the purpose of the bylaw to protect wetlands, water resources, and adjoining land as stated in Section 1 of the Bylaw."

Watertown

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

According to Bruce Roberts of the Conservation Department (6/28/04):

50 foot - no use
150 foot - regulate

Watertown has a 50 foot area for each of its resource areas in conjunction with the 150 buffer zone.

Section A, B, C, and D part (3) in each section of the Rules and Regulations.

For Banks, Vegetated Wetlands, Land under Water Bodies, and Land Subject to Flooding, Watertown has a 50 foot area where "No activity, other than the maintenance of an already existing structure, which will result in the building within or upon, removing, filling, or dredging or altering of land under a waterbody, or of land within 50 feet of a [insert type of resource area] shall be permitted by the Conservation Commission, except for activity which is allowed under a variance from a these regulations granted.

From Section 2. Jurisdiction of the bylaw,

"...Without limiting the foregoing, inles both a permit pursuant to Section 7 and a variance pursuant to Section 8 have been issued for the work in question, no person shall build or enlarge any structure, parking lot or impervious surface upon or within 50 feet of: any wetland, marsh, meadow, bog or swamp; any bank; any lands bordering on any lake, river, pond, stream, or creek; any land under said waters; or any land subject to flooding or inundation by groundwater of surface water."

(Chapter XV Wetlands Ordinance, Adopted 1987)

Then from Section I General Provisions, D Exceptions and Variances,
"(2) Variances

The commission shall have the power ... to grant with respect to a particular project a variance from the terms of this Ordinance where the Commission specifically finds based on clear and convincing evidence adduced by the applicant ... a literal enforcement of the provisions of this Ordinance would involve substantial hardship, financial or otherwise, to the applicant, and that desirable relief may be granted without material detriment to the values protected by this Ordinance and without substantially derogating from the intent or purposes of the Ordinance ... Such variances are intended to be granted only in rare and unusual cases."

(Rules and Regulations for the Administration of the Watertown Wetlands Ordinance of 1987, Adopted 1989)

Wayland

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

30 foot no disturbance

Town of Wayland, Wetlands and Water Resources Bylaw Chapter 194 Rules and Regulations Part A, Section 3 and Part C, Section 1 (Adopted 2004)

A vegetated buffer (i.e. not mowed) of 15 feet for additions and existing dwellings must be kept and/or restored as undisturbed.

For new construction a vegetated buffer of not less than 30 feet with permanent demarcation is required. Slopes, existing vegetation, and soils all may result in the request for an increased buffer. . . . This area may also be referred to as an undisturbed buffer, vegetated buffer, or NO-DISTURB ZONE and permanent demarcation (i.e. boulders, fences, walls etc.) of the limit of lawn is required.

Existing irrigation systems cannot be expanded to within 50 feet of a wetland, are discouraged elsewhere and must comply with all other applicable bylaws. No irrigation systems will be permitted for new projects within the 100-foot buffer zone of a wetland.

No debris, refuse or other materials, including but not limited to landscaping debris, leaves, shrubs, and tree trimmings, logs, bricks, stone or trash shall be deposited within the vegetated wetland or within 50 feet of the vegetated wetland.

No de-icing chemicals shall be used on any paved surface located within the 100-foot buffer zone, except with the prior written permission of the Commission.

No pesticides, herbicides or insecticides shall be used on the lawns or grounds located within the 100-foot buffer zone, except with the prior written permission of the Commission.

No sprinklers within the buffer zone for new construction or within 50 feet of the wetlands for existing structures.

On 12/20/04 the Conservation Commission told the researcher that there are no waivers for new construction.

Wellesley *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 25 foot no disturbance
25 - 100 foot limited disturbance

Town of Wellesley Wetlands Protection Regulations, Section 3.B (3) (Revised 2004)

3.B. Buffer Zone Protection

(3) Performance Standard

The portion of the buffer zone extending 25 feet from the wetland, bank or waterbody defining the buffer zone's inner edge, is designated a No-Disturbance Zone. The remainder of the buffer zone is designated a Limited Disturbance Zone.

(a) No-Disturbance Zone:

- (i) Alterations, including but not limited to grading, landscaping, removing of vegetation, filling, excavating, operation of vehicles or machinery, and paving, shall not be permitted in a No-Disturbance Zone.
- (ii) Structures, including but not limited to porches, decks, and sheds, shall not be constructed or placed within a No-Disturbance Zone.
- (iii) Notwithstanding any of the foregoing prohibitions, the Wetlands Protection Committee may allow certain activities or structures in a No-Disturbance Zone by waiver, as provided in section 3.D. of these regulations, when no other practicable alternative exists. Petitions for a waiver shall be included in writing in the Notice of Intent files under the Bylaw.

(b) Limited-Disturbance Zone: A Limited Disturbance Zone consists of all areas in a buffer zone not located in a No-Disturbance Zone. No activity shall be permitted in a Limited-Disturbance Zone that is more likely than not to harm or eventually harm resource areas, including No-Disturbance Zones, with respect to the interests of this Bylaw.

3.D. Waivers and Mitigation

(1) Waivers

The performance standards for wetland resource areas have been adopted to ensure that the interests protected by the Bylaw are adequately protected. The Wetlands Protection Committee recognizes that, in certain situations, a waiver of a specific performance standard may be appropriate for a particular project when the waiver is consistent with the intent and purpose of the Bylaw and regulations. The applicant shall have the burden of demonstrating that the granting of the waiver is consistent with the intent and purpose of the Bylaw and these Regulations. The applicant shall have the burden of demonstrating that the granting of the waiver is consistent with the intent and purpose of the Bylaw and these Regulations. The Committee shall act on the request for a waiver and shall provide to the applicant its written decision. The following paragraphs describe the waiver and its associated mitigation measures for the Buffer Zone and Vernal Pool performance standards.

(2) Waiver for Buffer Zones

The Wetlands Protection Committee may grant a waiver from these Regulations for an alteration of a buffer zone in situations where no practicable alternative provides less impact to the resource area values and a significant hardship would be imposed upon the applicant in the absence of a waiver. The Wetlands Protection Committee may grant a waiver of a performance standard and impose such additional or substituted mitigation requirements as it deems necessary. The applicant must show, clearly and convincingly that:

1. There is no practicable and substantially equivalent economic alternative to the proposed project with less harmful effects on the buffer one; and
 2. The project, or its natural and consequential effects, will have the least adverse effects on the buffer zone that can be practicably achieved.
 3. The project includes mitigation measures that improve the resource area in accordance with paragraph 3.D.(4) of this regulation.
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Wenham

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

Section 10.58(3) of the Wenham Water Resources Protection Regulations establishes a variety of no work and no build zones around wetland resource areas. They vary in size depending on the surface area and the proposed activity.

Geralyn Falco, Wenham Conservation Coordinator, (8/24/04) said that there are variances, but they are granted mostly for septics and older buildings.

Section 10.58(3) of the Wenham Water Resources Protection Regulations:

- A. Single Residential Lot: 30 ft.(Horizontal) by 2 foot (Vertical) no work, 50 foot no build.
 - B. Subdivision lot (2+ Units) w/ road construction; 50 foot (H) x 2 foot (V) no work, 50 foot no build.
 - C. Commercial/industrial/Institutional; 50 foot (H) x 2 foot (V) no work, 75 foot no build.
 - D. Driveways and utilities; 20 foot (H) x 2 foot (V) no work and no build;
 - E. Minor street, subdivision roads and other roads;
25 foot (H) x 2 foot (V) no work and no build (except for permitted crossings);
 - F. Septic systems (all elements and components including grading for break-out requirements and clay barriers); 100 foot no build and no work.;
 - G. Underground storage tanks; 200 foot.;
- variances available

West Bridgewater

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

50 foot no disturbance

Sections 8.3.1, 9.3.1, and 10.3.1 of the West Bridgewater wetlands regulations place a 50 foot no alter, no disturb zone around all protected resource areas.

From 8.3.1 "No activity, other than the maintenance of an already existing structure, which will result in the building within or upon, removing, filling, or altering of a bank, on land within (50) feet of any bank, shall be permitted by the Conservation Commission, except for activity which is allowed under a variance from these regulations granted pursuant to Section 13.0."

In section 9.3.1 and 10.3.1, the word bank is replaced by "vegetated wetland" or "land under a water body," respectively.

From Part IV Variances, "13.1.1 The Conservation Commission may, in its discretion, grant variances from the operation of one (I) or more of these rules and regulations pursuant to the Section. Such variances are intended to be granted only in rare and unusual cases, and shall be granted only in accordance with the provisions of this section."

(West Bridgewater Conservation Commission, Wetland Protection bylaw plus Rules and Regulations)

Westford

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes

50 foot no disturbance
75 foot no build

Westford Wetlands Regulations Section 235-1.D.

"Work on a lot with an existing structure where work is proposed on an artificial surface area of the lot. No work: 30 feet No build: 55 feet

Work on a lot with an existing structure where work is proposed within an existing non-artificial surface area. No work: 50 feet No build: 75 feet

Work on an undeveloped lot* No work: 50 feet No build: 75 feet

*Where access to the buildable portion of an undeveloped lot can only be provided via a wetlands crossing or by work closer than the prescribed limits, then work in association with only the roadway or driveway only may occur closer than the prescribed limits. Such roads and driveways must be designed to cross or approach wetlands in such a fashion to minimize impact within the wetlands and the applicable no disturb zones within the Buffer Zone."

(Town of Westford Wetlands Rules and Regulations, Chapter 235, Adopted 1989)

Westwood

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes 35 foot no disturbance

From Section 8. Definitions, "The term 'alter' shall include, without limitation, the following activities when undertaken to, upon, within, or affecting resource areas protected by this Bylaw:...(k)Any activity undertaken within thirty-five (35) feet of the boundary of a wetland, bank, pond, vernal pond, stream, or river shall be presumed to alter that resource area. This presumption may be overcome by demonstrating to the satisfaction of two-thirds of the Commission that the proposed activity will materially benefit the resource area."

(Westwood Wetlands Protection Bylaw, Article 18)

Weymouth *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

Yes 25 foot-no disturbance

The Town of Weymouth Wetlands Regulations, Part IX, establishes no disturb zones. The regulations establish no disturb zones for single family homes, multiple dwelling structures, and commercial and industrial structures. The zones are as follows: Single Family Homes (top of bank of water body-25 feet; edge of a vegetated wetland-25 feet); Multiple Dwelling Structures (top of bank of water body-25 feet; edge of a vegetated wetland-25 feet); Commercial and Industrial Structures (top of bank of water body-50 feet; edge of a vegetated wetland-50 feet). For single family homes, this includes decks, porches, garages, asphalt or bituminous concrete parking areas or driveways, swimming pools and tennis courts. For Multiple Dwelling Structures, this includes utility buildings and ancillary structures and devices.

The researcher did not find any reference to variance provision in this section specific to the buffer zone. However on 12/20, the conservation commission told the researcher that variances can be granted for new construction per Part 5 of Section .01 of the regulations.

Winchester *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No The researcher found no reference to limited use zones in the wetlands bylaws.

According to Ms. Vreeland (6/25/04) they tried to pass a 25' no build zone, but could not get it past the floor of town meeting. The Conservation Commission developed a policy under order of conditions -- 25' no build; if less than 25', then heavily vegetate remaining area.

When asked if anything is restricted beyond 25', she said that Winchester is so built out that 50' in Winchester is half of the lot.

There have been maybe 4 filings under the local bylaws, not applicable under the Wetlands Protection Act, in Winchester's history. In those cases, the wetlands tended to be on small side - they did not trigger the state's 1/4 acre rule.

Email received from Elaine Vreeland on 4/14/05:

"We do not have a regulation requiring a no build zone, however, as a policy we strongly encourage applicants, and made every effort to see that it is incorporated into the design. If there is less than 25 feet, the applicant must present a landscaping plan showing heavy landscaping with native species, favoring food and cover for wildlife."

Winthrop *Does the municipality enforce "no build zones" within the buffer zone around wetlands?*

No The researcher found no reference to limited use zones in the bylaws. According to Brian Corbett, Environmental Specialist for the Town of Winthrop, (6/16/04) the town does not create limited use zones, although many decisions are made on a case by case basis.

Woburn

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes According to Theresa Murphy, Woburn Conservation Administrator, (7/2/04) Woburn has a 15 foot no disturb zone.

On 12/22/04 the researcher called the Conservation Commission. The administrative assistant told her that waivers could be obtained on a case-by-case basis.

Worcester

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes 30 feet no build
15 feet no disturbance

There is a 30 foot no building zone and a 15 foot no disturbance zone around any resource area. From Section 4.2.4, General Performance Standards, "A. Structures and Improvements to Land - Except as may be allowed, no permanent or temporary foundation, building, road, sidewalk, bridge, sign, billboard or other permanent or temporary structure shall be placed within 30 feet of any resource area, unless, 1. It is a component of a qualified limited project under the state Wetlands Protection Act and the regulations promulgated pursuant thereto; or 2. It is a component of any storm water, flood control, water conservation, erosion control or soil conservation project otherwise approved. B. Construction Activities - Except as may be allowed below, no grading, filling, excavation, removal of vegetation or other construction activity (hereinafter, collectively the work) shall be allowed within fifteen feet (15') of any resource area, unless, 1. The Work is required to provide access to a resource area where a discretionary taking has been allowed under section 4.1 of these regulations; or 2. The Work is a component of any of the activities cited in (1) or (2) of subsection (A), above. C. Discretionary Allowances - The structures, improvements and Work otherwise prohibited under subsections (A) and (B), above, may be allowed by the Conservation Commission if the applicant demonstrates and the Commission finds: 1. Alternatives to the applicant's proposal have been considered, and no reasonable alternative is available; and 2. The project scope and design minimize work in close proximity to any resource area; and 3. The particular site conditions (including, but not limited to slope, soil type and hydrology) will allow prevention of wetlands damage from such work; and 4. The work will not lead to further encroachments on the resource area after completion of the project; and 5(A) the structure, improvement or activity is a component of any project to provide public access to and within the resource area after completion of the project; or (B) the permitted activity will not materially impair significant conservation interests and is consistent with the interests and purpose of the wetlands protection ordinance. D. Burden of Proof - The applicant shall have the burden of proof that the work proposed in its notice of intent and for which approval is sought under subsection (C), above, satisfies all of the necessary findings set forth therein. Failure to provide adequate evidence shall be sufficient grounds for the Commission to deny or condition the applicant's proposal. E. Waiver - Notwithstanding anything to the contrary in subsection (C), above, the Commission, upon request thereof, and after a public hearing on such request, may waive any of the provisions of this Section 4.2.4 upon making the following findings: 1. There are no reasonable conditions or alternatives that would otherwise allow the project to proceed in compliance with these regulations; and 2. A waiver is necessary to accommodate the project, which will provide a significant general public benefit and will not materially impair significant wetlands interests.

(City of Worcester Wetlands Protection Ordinance and Wetlands Protection Regulations, Adopted September 1990)

Wrentham

Does the municipality enforce "no build zones" within the buffer zone around wetlands?

Yes 50 foot no disturbance

Article 16, Section 8 of the Wrentham town bylaws states: "The Commission therefore will require that the applicant maintain a fifty-foot wide continuous strip of undisturbed vegetative cover within the 200-foot (researcher note: 200 foot buffer zone for streams) [or 100-foot] area. A variance to this criteria may be granted under three circumstances: 1) if the applicant demonstrates that the proposed project will have no adverse affect on any of the interests protected by this bylaw; 2) if the project is a rare or unusual case; and 3) if the project is not approved by the Commssionthis action will restrict the use of the property to such an extent to constitute a constitutional taking without compensation."

(Town of Wrentham Wetlands Protection Bylaw, Article 16, Adopted 1999)
