

WETLAND REGULATIONS
CITY OF CHICOPEE
Supplementary to
Wetland Protection Ordinance – Chapter 272

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Unless otherwise stated in chapter 272, or in the rules and regulations promulgated under chapter 272, the definitions, procedures and performance standards of the wetland protection act, MGL chapter 131, section 40, and associated regulations, 310 CMR 10.00 as promulgated April 1, 1983, et seq, shall apply

Approved _____, by the Chicopee Conservation Commission, Jean Fitzgerald, Chairman
Revised October 20, 2010 – Section 10.81

PART I – REGULATIONS FOR ALL WETLANDS

10.01 INTRODUCTION

I. Introduction

These regulations are promulgated by the City of Chicopee Conservation Commission pursuant to the authority granted to it under Chapter 272 of the City of Chicopee Wetlands Ordinance, hereinafter referred to as the “ORDINANCE.” These regulations shall compliment the ORDINANCE and shall have the force of law upon their effective date.

2. Purpose

The ORDINANCE sets forth a public review and decision making process by which activities affecting areas subject to protection under the ORDINANCE are to be regulated in order to ensure the protection of the following interests:

- public water supply
- private water supply
- ground water and ground water quality
- flood control
- erosion and sedimentation control
- storm damage prevention
- prevention of water pollution
- fisheries
- wildlife
- aesthetics
- agriculture
- aqua culture
- seasonal wetlands
- historic values

The purpose of these regulations is to define and clarify that process by establishing standard definitions and uniform procedures by which the Chicopee Conservation Commission may carry out its responsibilities under the ORDINANCE.

10.02 STATEMENT OF JURISDICTION

I. Areas Subject to Protection Under the Ordinance

The following areas are subject to protection under the Ordinance:

- | | | |
|----|------------------------------|--------------|
| A. | Any bank | The ocean |
| B. | Any freshwater wetland | Any estuary |
| C. | Any vegetated wetland | Any creek |
| | bordering on... | Any river |
| D. | Any Land Subject to Flooding | Any stream |
| | | Any pond |
| | | Or, any lake |

- E. land under any of the water bodies listed above
- F. Ephemeral stream
- G. Intermittent stream
- H. Kettle pond
- I. Upstream drainage with potential for altering wetlands
- J. Vernal Pool
- K. Isolated Wetlands
- L. 100 Foot Buffer Zone for A through N, above

2. Activities Subject to Regulation

- A. Activities subject to protection under the Ordinance. Any activity proposed or undertaken within an area specified in 10.02 (I. A through L) which will remove, fill, dredge or alter that area is subject to regulation under the Ordinance, and requires the filing of a Notice of Intent.
- B. Activities within the buffer zone. Any activity proposed or undertaken within one hundred (100) feet of an area specified in 10.02 (I. A through L) is subject to regulation under the Ordinance, and may require the filing of a Notice of Intent.
- C. Activities outside the areas subject to protection under the Ordinance and the buffer zone.
Any activity proposed or undertaken outside the areas of protection and their buffer zones, as specified in 10.02 (I. A through L) may require the filing of a Notice of Intent, if said activity may alter an area subject to protection under the Ordinance.

10.03 GENERAL PROVISIONS

- 1. Burden of proof {See chapter 272-12}
- 2. Burden of going forward {See 310 CMR 10.03 (2)}
- 3. Presumption concerning Title 5 {See 310 CMR 10.03 (3)}
- 4. No presumption, exception or exemption for point source discharges is provided for under Chapter 272 {See Chapter 272-3 A (I)}
- 5. Presumption of significance {See 310 CMR 10.03 (5)}
- 6. No presumption, exception or exemption for application of herbicides is provided for under Chapter 272 {See Chapter 272-3 A (I.)}
- 7. Fees {See 310 CMR 10.03 (7) and Chapter 272-3 B (2) & (3)}

10.04 DEFINITIONS

Aesthetics means the natural scenery and appearance of any wetland resource area

Agriculture {See Chapter 272 10.04, Normal Maintenance and/or Improvement of Land In Agricultural Use}

Alter includes, without limitation, the following actions when undertaken in areas subject to this chapter:

1. Removal, grading, excavation or dredging of soil, sand, gravel or aggregate materials of any kind
2. Changing drainage characteristics, flushing characteristics, salinity distribution, sedimentation patterns and flood-retention characteristics
3. Drainage or other disturbance of the water level or water table
4. Dumping, discharging or filling with any material which may degrade water quality
5. Driving of piles or erection of buildings or structures of any kind
6. Placing of obstructions, whether or not they interfere with the flow of water
7. Destruction of plant life, including cutting of trees
8. Changing of water temperature, biochemical oxygen demand or other physical or chemical characteristics or surface and ground water
9. "Wildlife habitat", which shall mean those areas subject to this chapter which, due to their plant community composition and structure, hydrologic regime or other characteristics, provide important food, shelter, migratory or over wintering area or breeding areas for wildlife.
10. Other changes or modifications which the Conservation Commission in good faith determines to have a potential adverse effect on wetland values.

Aqua culture land in aqua culture use means land presently and primarily used in the growing of aquatic organisms under controlled conditions, including one or more of the following uses; raising, breeding or producing a specified type of animal or vegetable life.

Aquifer means a geologic formation that is capable of yielding a significant amount of water to a well or spring. All the spaces and cracks, or pores, between particles of rock and other material in an aquifer are saturated with water. Water can move through the pores toward a spring or other discharge area.

Area subject to protection under the Ordinance means any area specified in Section 10.02 (I). It is used synonymously with Resource Area.

Artificial Wetlands means creation of a substitute man-made wetland

Bordering means touching

Boundary means the boundary of an area subject to protection under the Ordinance. A description of the boundary of each area is found in the appropriate section of these regulations.

Buffer Zone means a 100 horizontal foot zone around the wetland. {See 10.81 }

Ephemeral Stream means a stream or position of a stream which flows only in direct response to precipitation. It receives little or no water from springs and no long-continued supply from melting snow or other sources. Its channel is at all times above the water table.

Erosion and Sediment Control shall mean the avoidance or minimization of the diminishment of, or destruction by edges of soils, sands, clays, ledge rock, or any other land form, both naturally occurring or man-made; also the avoidance of the dispersing or depositing of soils, sands, clays, or any other naturally or unnaturally occurring material.

Extent Practicable shall mean that an applicant has made all reasonable efforts to meet a standard(s), including evaluation of alternative designs and locations.

Freshwater Wetlands means wetland types which are associated with non-tidal wetlands.

Growing Season considered to be the entire time period from approximately March 15 to October 15

Interests Identified in the Ordinance means those interests specified in Section 10.01 (2) of these regulations

Intermittent Stream means:

1. A stream which flows part of the time, as after a rainstorm, during wet weather or during part of the year
2. One which flows only at certain times when it receives water from springs (spring-fed) or from some surface source (surface-fed) such as melting snow

Kettle Hole means a bowl-shaped depression, usually from thirty (30) to fifty (50) feet deep to five hundred (500) feet deep, that resulted from the resting place or burial place of a huge mass of ice that became detached during glacial melting. The final melting of the ice left a depression. A “kettle pond” is a kettle hole which still retains water.

Kettle Pond is a “kettle hole” which still retains water

Land in Agricultural Use means any qualifying wetland within a farm which is qualified or eligible to be qualified under the Farmland Assessment Act, MGL C. 61A SS 1-5

Marsh means areas where a vegetational community exists in standing or running water during the growing season and where a significant part of the vegetational community is composed but not limited to, nor necessarily including all of the following plants or groups of plants: arums (Araceae), bladderworts (Utricularia), bur reeds (Sparganiaceae), buttonbush (Cephalanthus occidentalis), cattails (Typha), duckweeds (Lemnaceae), ellgrass (Vallisneria), frog bits Hydrophilic grasses (Oiaceae), leatherleaf (Chamaedaphne calyculata), pickerelweeds (Ponterderiaceae), pipeworts (Eriocaulon), pondweeds (Potamogeton), rushes (Juncaceae), sweet gale (Myrica gale), water milfoil (Haloragaceae), water lilies (Nymphaeaceae), water starworts (Callitrichaceae), and water willow (Decodon vertifillatus)

Normal Maintenance or Improvement of Land in Agricultural Use:

1. Includes only:
 - A. Tilling practices customarily employed in the raising of crops
 - B. Pasturing of animals, including such fences and protective structures as may be required
 - C. Use of fertilizers, pesticides, herbicides and similar materials subject to state and federal regulations covering their use
 - D. Constructing, grading or restoring of field ditches, subsurface drains, grass waterways, culverts, access roads and similar practices to improve drainage, prevent erosion, provide more effective use of rainfall and improve equipment operation and efficiency, in order to improve conditions for growing crops

2. Improvements of land in agricultural use includes more extensive practices such as the building of ponds, dams structures for water control, water and sediment basins and related activities, but only where a plan for such activity approved by the Conservation District of the Soil Conservation Service is furnished to the Conservation Commission prior to the commencement of work
3. All such activity shall subsequently be carried out in accord with said plan. In the event that the work is not carried out in accordance with the required plan, the Conservation Commission may place a stop order on said work and have recourse to such measures as if the plan were an Order of Conditions

Plans means such data, maps, engineering drawings, calculations, specifications, schedules and other materials, if any, deemed necessary by the issuing authority to describe the site and/or work, to determine the applicability of the ORDINANCE. Said drawings should have a minimum scale of one (1) inch to forty (40) feet

Pond means any open body of water, either naturally occurring or man-made by impoundment, which is never without standing water due to natural causes, except during periods of extended drought. For purpose of this definition, “extended drought” shall mean any period of four (4) or more months during which the average rainfall for each month is fifty percent (50) or less of the ten-year average for that same month. Basins or lagoons which are part of waste water treatment plants shall not be considered “ponds.”

Protection of Wildlife means the protection of any plant or animal species, and means protection of the ability of any resource area to provide food, breeding habitat, or escape cover for any species falling within the definition of wildlife set forth in these Regulations

Protection of Historic Values means the protection of areas subject to protection under the Ordinance which are known or are determined in writing by the Conservation Commission to be likely to contain sites of archaeological significance, including but not limited to middens, burial sites, or historic and prehistoric structures and artifacts

Qualifying Wetland means only inland freshwater areas which are seasonally flooded basins, flats or inland fresh meadows

Riverrine Wetland means wetland and deep water habitats that are contained within a channel. These areas are particularly valuable in reducing the danger of flooding

Seasonal Wetlands means isolated depressions or closed basins which temporarily confine water during periods of high water table and high input from spring runoff, snow melt or heavy precipitation and support populations of non transient microorganism, or serve as breeding habitat for a select species of amphibians. In the absence of those habitat functions, the areas should be considered land subject to flooding

Select Species of Amphibians means species of amphibians which depend on seasonal wetlands for breeding habitat including but not limited to: Jefferson salamander, blue-spotted salamander, marble salamander, spotted salamander, wood frog, gray tree frog, spring pepper, American toad and four-toed salamander

Stormwater Management The method(s) used to protect waterbodies from the adverse affects and impacts of stormwater runoff

Stormwater Management System A conveyance system designed for the capture, treatment and discharge of stormwater

Stormwater Management Standards shall mean standards as contained in Section 10.82 of these regulations, and those in the MA Department of Environmental Protection’s Stormwater Management Handbook and Stormwater Technical handbook (volumes 1 and 2)

Stream means a body of running water, including brooks, creeks, which move in a definite channel in the ground due to a hydraulic gradient. A portion of a “stream” may flow through a culvert or beneath a bridge. Such a body of running water which does not flow throughout the year is also a “stream.”

Upstream drainage with potential of altering wetlands means over land or surficial flow (runoff), which may originate from natural sources (springs, snow melt, precipitation, etc.) or human development (roads, driveways, slope changes, lawns, drainage swales, drainage outfalls or other human landscape alterations), which carries a sediment load or pollution that may alter a resource area. Such drainage may not necessarily flow in any discernible channel but may flow as sheet flow (over smooth surface), thread flow (through small stems and leaves) or riverlet flow (along small hills on the surface)

Vegetated Bank is defined in Part III section 10.54

Wildlife means any non-domesticated mammal, bird, reptile, amphibian, fish, mollusk, arthropod, or other invertebrate, other than a species of the Class Insecta, which has been determined by the Commonwealth of Massachusetts or any agency thereof to be a pest whose protection under the provisions of the ORDINANCE would be a risk to man

PART II – REGULATIONS FOR RESOURCE AREAS AND BUFFER ZONES

10.55 VEGETATED WETLANDS

1. Freshwater Wetlands (wet meadows, marshes, swamps, bogs)

A. Preamble

Vegetated wetlands are likely to be significant to public or private water supply to groundwater supply, flood control, to storm damage prevention, to prevention of pollution and to the protection of fisheries, wildlife habitat, aesthetics, agriculture and historic values.

Vegetated wetlands remove or detain sediments, nutrients (such as nitrogen and phosphorous) and toxic substances (such as heavy metal compounds) that occur in run-off and flood waters

Some nutrients and toxic substances are detained for years in plant root systems or in the soils. Others are held by plants during the growing season and released as the plants decay in the fall and winter. This latter phenomenon delays the impacts of nutrients and toxins until the cold weather period, when such impacts are less likely to reduce water quality

Vegetated wetlands are areas where, under some circumstances, surface water discharges to the ground water

The profusion of vegetation and the low, flat topography of vegetated wetlands slow down and reduce the passage of flood waters during periods of peak flows by providing temporary flood water storage, and by facilitating water removal through evaporation and transpiration. This reduces downstream flood crests and resulting damage to private and public property. During dry periods the water retained in vegetated wetlands is essential to the maintenance of base flow levels in rivers and streams, which in turn is important to the protection of water quality and water supplies

Wetland vegetation provides shade that moderates water temperatures important to fish life. Wetlands flooded by adjacent water bodies and waterways provide food, breeding habitat and cover for fish. Fish populations in the larval stage are particularly dependent upon food provided by over-bank flooding which occurs during peak flow periods (extreme storms), because most river and stream channels do not provide quantities of the microscopic plant and animal life required

Wetland vegetation supports a wide variety of insects, reptiles, amphibians, mammals and birds which are a source of food for important game fish. Blue gills (*Lepomis macrochirus*), pumpkinseeds (*Lepomis gibbosus*), yellow perch (*Perca flavescens*), rock bass (*Ambloplites rupestris*), and all trout species feed upon non aquatic insects. Large-mouth bass (*Micropterus salmoides*), chain pickerel (*Esox niger*), and northern pike (*Esox lucius*) feed upon small mammals, snakes, non aquatic insects, birds and amphibians. These wetlands are also important to the protection of rare and endangered wildlife species

Vegetated wetlands are probably the City's most important inland habitat for wildlife. The hydrologic regime, plant community composition and structure, soil composition and structure, topography and water chemistry of vegetated wetlands provided important food, shelter, migratory and over wintering areas, and breeding areas for many birds, mammals, amphibians and reptiles. A wide variety of vegetated wetlands plants, the nature of which are determined in large part by the depth and duration of water, as well as soil and water composition, are utilized by varied species and are important areas for mating, nesting, brooding, rearing, shelter and (directly and indirectly) food. The diversity and interspersed nature of the vegetative structure is also important in determining the nature of its wildlife habitat. Different habitat characteristics are used by different wildlife species during summer, winter and migratory seasons.

Vegetated wetlands, together with land within 100 feet of a vegetated wetland, serve to moderate and alleviate thermal shock and pollution resulting from runoff from impervious surfaces which may be detrimental to wildlife and fisheries downstream of the vegetated wetlands

Land within 100 feet of a vegetated wetlands is likely to be significant to the protection and maintenance of vegetated wetlands, and therefore to the protection of the interests which these resource areas serve to protect

B. Definition, Critical Characteristics and Boundary

Vegetated wetlands are freshwater wetlands which may border in creeks, rivers, streams, ponds and lakes. The types of freshwater wetlands are wet meadows, marshes, swamps and bogs. These are areas where the topography is low and flat, and where the soils are annually saturated. The ground and surface water regime and the vegetational community which occur in each type of vegetated wetland are specified in the ORDINANCE

The physical characteristics of vegetated wetlands, as described in the foregoing 10.55 (2)-(a), are critical to the protection of the interests specified in 10.55 (I)

The boundary of vegetated wetlands is determined by meeting the following requirements:

1. Fifty percent (50) or more of the natural vegetative community must consist of obligate or facultative wetland plant species as included or identifies in generally accepted scientific or technical publications (as for example, the Wetland Plant List {Northeast Region} for the National Wetlands Inventory, U.S. Fish and Wildlife Service): and
2. The soils must be annually saturated, as evidenced by the observed or documented presence of ground water generally within 24 inches of the surface at any time of the year or by solid mottling within 24 inches of the surface
3. The Conservation Commission may require the use of the Dominance Test, as outlined in “Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act, MA Department of Environmental Protection, Division of Wetlands and Waterways, March 1995

Isolated wetlands and seasonal wetlands are defined elsewhere in these regulations (section 10.55 B and 10.80) and need not necessarily meet the above requirements.

In situations where the natural vegetative community may have been destroyed, as for example by lawn or agricultural use, the Conservation Commission may determine the area to be freshwater wetland on the basis of annual soil saturation along (as defined above) or, at the request of the applicant or landowner, may defer the determination under the natural vegetation has regrown.

No activity, other than the maintenance or an already existing structure or septic system, which will result in the building within or upon, removing, filling, or altering of a vegetated wetland, shall be permitted by the Conservation Commission except for any activity which shall not impair the vegetated wetlands ability to perform any of the functions set forth in section 10.55 (I).

Construction of a septic or septic leaching system is prohibited within 100 feet of a vegetated wetland.

C. Presumption

Where a proposed activity involves the removing, filling, dredging or altering of a freshwater wetland, the Conservation Commission shall presume that such an area rebuttable and may be overcome upon a clear showing that the freshwater wetland does not play a role in the protection of said interests. In the event that the presumption is deemed to have been overcome, the Conservation Commission shall make a written determination to this effect, setting forth its grounds

D. General Performance Standards

Where the presumption set forth above is not overcome, any proposed work in a freshwater wetland shall not destroy or otherwise impair any portion of said area

Notwithstanding section 4 (a) above, the Commission may issue a Permit allowing work which results in the loss of up to 5,000 square feet of freshwater wetland when said area is replaced in accordance with section 10.84

Notwithstanding the provisions of 4 (a), (b), and (c) above, no project may be permitted which will have any adverse effect on any habitat sites, including specified habitat sites of rare vertebrate or invertebrate species as identified on the Natural Heritage and Endangered Species Estimated Habitat Maps on file with the Conservation Commission and identified under section 10.59 (“Rare Species”) of the regulations to the state Wetlands Protection Act (310 CMR 10.00)

II. Isolated Wetlands

A. Preamble

Isolated wetlands are freshwater wetlands that do not border on creeks, rivers, streams, ponds and lakes. Isolated wetlands are likely to be significant to public or private water supply, to ground water supply, to flood control, to storm damage prevention, to prevention of pollution, and to wildlife habitat, aesthetics and historic values.

Isolated wetlands may be found within areas with low flat topography or below side hill seeps. These areas provide for the temporary storage of water which results from run-off, rising ground water, or where ground water breaks out of a slope forming a side hill seep. In this way they provide for flood control and prevention of flood damage. Alteration can result in the lateral displacement of retained water into contiguous properties, which may result in damage to said properties.

Where such areas are underlain by pervious material covered by a mat of organic peat or muck, they are likely to be significant to the prevention of pollution.

Isolated wetlands providing seasonal wetland habitats are essential breeding sites for certain amphibians which required isolated areas that generally flood in the spring and /or summer, and are free of fish predators. Many reptiles, birds and mammals also depend upon such isolated wetland as a source of food.

B. Definition, Critical Characteristics and Boundary

Definition:

Isolated wetlands are freshwater wetlands, as defined in this ORDINANCE, that do not border creeks, rivers, streams, ponds and lakes. Some isolated depressions which hold standing water for extended periods of time, perhaps continuously, such as certain kettle holes too small to be called ponds or lakes, are isolated wetlands.

Critical Characteristics:

1. Topography – isolated wetlands may occur in a depression or closed basin in otherwise flat topography. In these areas, water may pool above the surface at least once a year or may be continued in the top 24 inches of soil. In addition, some isolated wetlands occur downslope of side hill seeps, depending on the topography, soils, and water regime
2. Vegetation – In most cases, the vegetative community in isolated wetlands conforms to that specified in this ORDINANCE for freshwater wetlands. Occasionally the presence of water is so temporary that the appropriate vegetative community is not established; these areas may qualify as seasonal wetland
3. Soils – The soils are annually saturated as specified for freshwater wetlands, except in those isolated wetlands that are seasonal wetlands this soil condition may not be present

Boundary:

The boundary of an isolated wetland shall be determined by one or more of the following, depending on the availability of information. Where more than one method is possible, that method leading to the largest area shall be used

The boundary of the isolated wetland shall be:

1. the line enclosing that area having a vegetative cover consisting of 50 or more of freshwater species, as defined in the ORDINANCE
2. the line enclosing the largest observed or recorded area of water confined in said area, or
3. the area calculated to be inundated by run-off from the 100-year storm
4. The Conservation Commission may require the use of the Dominance Test, as outlined in “Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act, MA Department of Environmental Protection, Division of Wetlands and Waterways, March 1995

C. Presumption

Where a proposed activity involves removing, filling, dredging, or altering an isolated wetland, the Commission shall presume that such an area is significant to, and only to, the respective interests specified in section 10.55 (B) (I). This presumption is rebuttable and may be overcome only upon a clear showing that said land does not play a role in said interests. In the event that the presumption is

deemed to have been overcome, the Conservation Commission shall make a written determination to this effect, setting forth its grounds.

D. General Performance Standards

A proposed project which may result in alteration of an isolated wetland shall not result in the following:

1. Flood damage due to filling which causes lateral displacement of water that would otherwise be confined within said area
2. An adverse effect on public and private water supply or ground water supply, where said area is underlain by pervious material
3. An adverse effect on the capacity of said area to prevent pollution of the ground water, where the area is underlain by pervious material which in turn is covered by a mat of organic peat or muck
4. An impairment of its capacity to provide wildlife habitat where said area is a seasonal wetland habitat, as determined by procedures in section 10.60, Wildlife Habitat Evaluations

Notwithstanding the provisions of section 10.55 B (4) above, no project may be permitted which will have any adverse effect on specified habitat sites of rare vertebrate or invertebrate species as identified on the National Heritage and Endangered Species Estimated Habitat Maps on file with the Conservation Commission and identified under section 10.59 ("Rare Species") of the Regulations to the state Wetlands Protection Act (310 CMR 10.00)

10.57 LAND SUBJECT TO FLOODING (Bordering and Isolated)

A. Preamble

See 310 CMR 10.57 (I) (a) & (b)

B. Definition Critical Characteristics and Boundaries

Bordering Land Subject to Flooding

Bordering Land Subject to Flooding is an area with low, flat topography adjacent to and inundated by floodwaters rising from rivers, streams, ponds or lakes. It extends from the banks of these waterways and waterbodies; where a bordering vegetated wetland occurs, it extends from said wetland. The boundary of bordering land subject to flooding is the estimated maximum lateral extent of floodwater which will theoretically result from the statistical one hundred year frequency storm. Said boundaries shall be that determined by references to the most recently available flood profile data prepared for the community within which the work is proposed under the National Flood Insurance Program (NFIP) currently administered by the Federal Emergency Management Agency. Said boundary so determined shall be presumed accurate. This presumption may be overcome only by credible evidence from a registered engineer or other professional competent in such matters and to the satisfaction of the Conservation Commission.

Isolated Land Subject to Flooding

Isolated Land Subject to Flooding is an isolated depression or closed basin without an inlet or an outlet. It is an area which at least once a year confines standing water. Isolated Land Subject to Flooding may be underlain by pervious material, which may in turn be a mat of organic peat or muck. The Boundary of Isolated Subject to Flooding is the perimeter of the largest observed or recorded volume of water confined in said area

C. Presumption
See 310 CMR 10.57 (3)

D. General Performance Standards
See 310 CMR 10.57 (4)

10.80

SEASONAL WETLANDS (Temporary ponds, vernal pools)

A. Preamble

Seasonal wetlands are usually isolated depressions or closed basins that serve, in most years, as ponding areas for run-off or high ground water that has risen to the surface. Seasonal wetlands may be found in floodplains or in saddles at the base of slopes. It should be noted that the above characteristics may be shared with isolated wetlands (cf. section 10.55 B). Seasonal wetlands are distinguished from isolated wetlands in that they frequently serve as temporarily flooded amphibian breeding habitat, as well as habitat for other wildlife, and as such, are likely to be significant to the protection of wildlife habitats.

In addition, such areas may be locally significant for flood control, storm damage prevention, and groundwater and public and private water supply. Where such areas are underlain by pervious material covered by a mat of organic peat or other organic accumulation, they may be significant to the prevention of pollution.

In addition to the critical characteristics given below in section 10.80 (2) (b), seasonal wetlands have long been recognized for their importance to amphibians. Existing field data show that seasonal wetlands provide critical habitat for a number of amphibian species, some of which are listed below.

Amphibians requiring seasonal wetlands for breeding:

Ambystoma jeffersonianum (Jefferson salamander)
Ambystoma laterale (Blue-spotted salamander)
Ambystoma opacum (Marbled salamander)
Ambystoma maculatum (Spotted salamander)

Amphibians using seasonal wetlands, occasionally breeding/feeding in them:

Hyla versicolor (Gray treefrog)
Hyla c. crucifer (Spring peeper)
Bufo a. americanus (American toad)
Hermidactyliu, scutatatum (Four-toed salamander)

The established presence of certain species of vertebrate predators, such as adult fish populations, can be used as “negative information” or indicators that certain pools are clearly not temporary. It should be noted that the very reason that so many amphibians use seasonal wetlands for breeding, in contrast to permanent ponds, is because they and their offspring are far less likely to become prey in these pools than they are in the shallows of a pond or lake where fish and other predators are present. The presence of a sustaining population of any species of fish at a site in questions would rule it out as a seasonal wetland.

A few species of reptiles are known to be occasional users of seasonal wetlands. These include the spotted turtle, snapping turtle, and painted turtle.

Malacologists have long recognized seasonal wetlands as habitat for members of the finger nail and pea clam family (spaeiidae). Other invertebrates are also known to inhabit seasonal wetlands. Waterfowl are known to frequent many of these pools, albeit sporadically. Wood ducks, mallards, black ducks, and occasionally great blue herons will stop, especially at those seasonal with growths of vegetation such as duckweed or abundant populations of mollusks. Thus, the presence of mollusks, duckweed residues, or other indicators of temporary pooling of water such as caddis fly cases, are indicative of the presence of a seasonal wetland.

With regard to floral characteristics, the typical plant communities usually associated with wetlands cannot reliably be used for seasonal wetlands. The presence of certain species of submergent or emergent vegetation generally indicates a wet condition that may go beyond the definition of a seasonal wetland. Vegetation more usually associated with a wet meadow may indicate the pooling of water for a time insufficient for a seasonal wetland. These conditions may indicate the presence of an isolated wetland (cf. section 10.55 B) or an area that holds standing water for a major part of the year.

B. Definition, Critical Characteristics and Boundary

Definition:

Seasonal wetlands are isolated depressions or closed basins which temporarily confine water during periods of high water table and high input from spring run-off or snow melt or heavy precipitation, and support populations of non-transient macro-organisms or serve as breeding habitat for select species of amphibians. In the absence of those habitat functions, the areas should be considered under section 10.55 B as isolated wetlands.

Critical Characteristics:

1. Temporality – Seasonal wetlands predictably fill up during the spring rains and snow melt, dry up during the summer, and may fill again during the fall rains. With few exceptions, a seasonal wetland is not considered temporary if the standing water does not disappear. The hydrologic cycle may occasionally miss a year.
2. Shape – Seasonal wetlands occupy shallow, cup-shaped depressions in areas where flooding from nearby waterways or water bodies or, where rising ground water or side hill seeps may serve to fill them temporarily.

3. Size – Seasonal wetlands are characteristically small; however, a given pool can vary in size from year to year depending on the amount of rainfall or snow melt. No minimum threshold size is indicated.
4. Substratum – Most seasonal wetlands are underlain with a relatively impermeable substratum or hardpan, frequently underlain pervious soils.
5. Organic Accumulation – The presence of a well-developed organic layer is a feature of seasonal wetlands. Generally these pools have persisted since the end of the glacial period and will probably continue in their semi-open condition for many more thousands of years unless artificially altered. These pools act as traps for organic matter, especially during the autumn when they trap quantities of airborne leaves. The presence of water-stained leaves in a depression which is otherwise dry is a good indicator that the area temporarily serves to pool water.
6. Topographical Orientation – Seasonal wetlands occupy saddles or level ground and, with the exception of pools associated with flood plains, are often adjacent to steep slopes.

Boundary:

Because seasonal wetlands are dry much of the year, it may be necessary to determine their boundaries using indicators other than pooled water. Further, because the area inundated varies so widely from year to year, pooled water is not a good indicator of extent. A seasonal wetland boundary shall be determined using a combination of pooled water, if present, and by the presence of a depression covered by water-soaked leaves. Other indicators of the temporary pooling of water, such as the presence of caddis fly cases or fingernail or pea clams, can also be used.

C. Presumption

Where a proposed activity involves the removing, filling, dredging or altering of a seasonal wetland, the Conservation Commission shall presume that such an area, as well as the area within 100 feet of the mean annual boundaries of said seasonal wetland, is significant to the protection of wildlife habitat, particularly amphibian breeding habitat. This presumption is rebuttable and may be overcome upon a clear showing that the seasonal wetland does not play a role in the protection of wildlife habitat. In the event that the presumption is deemed to have been overcome, the Conservation Commission shall make a written determination to this effect, setting forth its grounds.

Such an area may, however, be significant for the prevention of flooding and flood damage, protection of public and private water supplies, protection of ground water, and the prevention of pollution. When the presumption of wildlife habitat has been overcome, a determination for these other interests may be reviewed as set forth in isolated wetland, section 10.55 (2)

D. General Performance Standards

A proposed project in a seasonal wetland shall not result in the following:

1. Any impairment of the capacity of the seasonal wetland, as well as the area within 100 feet of the mean annual boundary of said seasonal wetland to provide wildlife habitat.
2. Flood damage due to filling which causes lateral displacement of water that would otherwise be confined within said area.
3. An adverse effect on public and private water supply or ground water supply, where said area is underlain by pervious material.
4. An adverse effect on the capacity of said area to prevent pollution of the ground water, where the area is underlain by pervious material which is in turn covered by a mat of organic peat and muck.
5. Endangering state-listed species, which shall be protected under the procedures listed in 10.59.

10.81 UPSTREAM DRAINAGE WITH THE POTENTIAL FOR ALTERING WETLANDS
(revised October 20, 2010)

A. Preamble

Upstream Drainage With the Potential for Altering Wetlands (UDPAW) are or are associated with intermittent or perennial freshwater or stormwater flows AND/OR which consist of geologic features or structures (natural or man-made) that exhibit severe or moderate limitations for building or site development, shallow or deep excavation, basement or slab construction, roads, cut banks, filling, removal of vegetation and other human or natural alteration. In particular, soils classified as Terrace escarpments (TE) by the U.S. Department of Agriculture's Soil Conservation Service often exhibit these limitations and included the paradoxical features of being both excessively drained and seepy (containing intermittent or infrequent hillside or underground springs). Other soils classified as Urban Land may also contain these characteristics. UDPAW may border on and/or may have an intermittent hydrologic relationship with creeks, rivers, streams, ponds and lakes, but do not necessarily (and often do not) exhibit the typical wetland characteristics of hydrophytic vegetation, hydra soils and /or hydrologic indicators. UDPAW are likely to be significant to public or private water supply, to ground water supply, to flood control, to storm damage prevention, to prevention of pollution, to fisheries, to wildlife habitat and historic values.

The surficial geology is often characterized by sediment deposits related to the vast glacial lake which once occupied the region. In the case of Terrace escarpments, streams (intermittent or perennial) drain high plateaus which drop rapidly. The essential flat parent material through or across which these streams cut consist of mainly fine to coarse sand, interbedded with silt and clay-rich materials. Despite their age and compaction, these materials are extremely susceptible to erosion, caused by flowing water at the soil surface, as well as seepage through subsurface layers (see Goldsmith, W. and M. Larson. "Incised Channel Stabilization and Enhancement Integrating Geomorphology and Bioengineering." Proceedings of the conference on Management of Landscapes Disturbed by Channel Incision 1997. (S.S.Y. Wang, E.J. Langendoen and F.D. Shields, Jr. (eds.) ISBN 0-937099-05-8)

B. Definition and Critical Characteristics

Upstream Drainage with the Potential of Altering Wetlands (UDPAW) is defined as over-land or surficial flow (runoff), which may originate from natural sources (springs, snow melt, precipitation, etc.) or human development (roads, driveways, slope changes, lawns, drainage swales, drainage outfalls or other human landscape alterations), which carries a sediment load or pollution that may alter a resource area. Such drainage may not necessarily flow in any discernible channel but may flow as sheet flow (over smooth surfaces), thread flow (through small stems and leaves) or riverlet flow (along small hills on the surface).

Naturally occurring UDPAW are often, but not exclusively, characterized by their classification as Terrace escarpments, as mapped within the United States Department of Agriculture's Soil Survey of Hampden County, Massachusetts Central Part.

These miscellaneous areas are moderately steep to very steep. The escarpments occur at the margins of the various levels of stream or glacial outwash terraces or are geological gullies in soft, water-deposited strata. Slopes are concave and are 20 to 400 feet long. Areas range from 30 to 300 acres in size and are commonly long and narrow, and often have a dendritic (branching or tree-like) pattern. Most of these areas are vegetated, stabilized, and are not actively eroding.

Texture often varies considerably within a small area. The surface layer and subsoil range from silt loam to sand. They are 0 to 50 percent gravel. These miscellaneous areas are excessively to poorly drained. Wet seepy spots often cause the steeply sloped soils to slump. Drainage is best near the upper margins of escarpments and grades to a wetter condition at lower levels (U.S. Department of Agriculture Soil Conservation Service's Soil Survey of Hampden County, Massachusetts Central Part, Issued May 1978, page 51).

An intact, stable soil column within Terrace escarpment soils is contingent upon a well-developed and maintained soil-surface or near soil-surface root system, and an associated organic layer which may contain varying degrees of decomposition. Removal of the root mat, grubbing, cutting or removing trees, shrubs and perennial vegetation, or otherwise altering the integrity of the soil column precipitates both erosion and the transport of pollutants. Given the proximity of Terrace escarpments to wetlands, and their upgradient position in relation to wetlands, intact soils of this type are critical to protecting down-gradient wetlands from the effects of erosion, sedimentation and pollution. Terrace escarpments and other similar soils that have been previously altered, but have restabilized either naturally or by human intervention, are also covered by this definition.

UDPAW may be characterized by the presence of discernible seeps or springs, but are more often characterized by dry conditions, due to strata which are excessively drained (especially within upgradient locations) and the "thread-flow, rivulet-flow" nature of surface drainage when it occurs within undisturbed sites. Therefore hydrophytic vegetation, hydric soils or other hydrological indicators may not be (and often are not) readily evident or present.

C. Presumption

Where a proposed activity involves the removal of vegetative cover, disturbance of the surface or sub-surface, grading, filling or otherwise alters the soil column of Terrace escarpments, similar soils, or any other areas defined in 10.81 B. the Conservation Commission shall presume that such an area, as well as the area within 100 feet is significant to the protection of the interests protected by the ORDINANCE. Terrace escarpments, as mapped by the U.S. Department of Agriculture's Soil Conservation Service, are protected by the ORDINANCE.

Where a proposed activity involves the removal of vegetative cover, disturbance of the surface or sub-surface, grading, filling or otherwise alters the soil column of Terrace escarpments, similar soils, or any other areas defined in 10.81 B. the Conservation Commission shall presume that such an area is significant to the protection of the interests protected by the ORDINANCE. Terrace escarpments, as mapped by the U.S. Department of Agriculture's Soil Conservation Service, are protected by the ORDINANCE. This presumption is rebuttable and may be overcome upon a clear showing that the work shall have no adverse impacts to the interests protected under the ORDINANCE. In the event that the presumption is deemed to have been overcome, the Conservation Commission shall make a written determination to this effect, setting forth its grounds.

D. General Performance Standards

Any alteration proposed for Upstream Drainage With the Potential for Altering Wetlands (UDPAW) shall have no adverse impacts to the interests protected under the ORDINANCE. Any applicant who proposes to alter UDPAW has the burden to demonstrate that no pollutant load, sediment load or other alteration shall enter into or occur within resource areas protected under the ORDINANCE.

Given the extreme difficulty in stabilizing altered UDPAW (especially Terrace escarpments) cut banks, filling of ravines or hillslopes, stormwater management systems and their associated structures, or any other structures or landscape alterations shall be stabilized using soft (bioengineered) structures to the maximum extent practicable.

Overland flow from point or nonpoint sources shall not discharge to or across Terrace escarpment soils.

There shall be no disturbance of Terrace escarpment or similar soils on slopes of 25% or greater.

Depending on the extent of a proposed alteration the Conservation Commission may require a Notice of Intent. Any Notice of Intent submitted under this section shall require plans signed and stamped by a professional engineer. These plans shall include the results of soil sampling, existing soil compaction, compactability of proposed any other information the Conservation Commission deems

fill, and
necessary.

In the event of a violation requiring enforcement, restoration shall be provided on a 2:1 basis (restored area to area of alteration). Restoration within degraded areas subject to protection under the ORDINANCE, and shall include:

- (1). Removal of debris, but retaining any trees or other mature vegetation
- (2). Grading of topography which reduces runoff to Terrace escarpments
- (3). Coverage with topsoil to a depth consistent with natural conditions and stabilization of the topsoil
- (4). Seeding and planting with an erosion control seed mixture, following plantings of herbaceous and woody species appropriate to the site being restored

10.82 BUFFER ZONES

A. Preamble

It has been the Conservation Commission's experience that any project undertaken in close proximity to a wetlands resource area has a high likelihood of resulting in some alteration of that area, either immediately, as a consequence of construction, or over a longer period of time, as a consequence of construction, or within 100 feet of a resource area must submit to the Conservation Commission either a Request for Determination of Intent. This way, the Conservation Commission has an opportunity to review the proposed project to resulting alteration is in compliance with other applicable performance standards. If in response to a Request for Determination of Applicability, the Conservation Commission finds that work within the buffer zone will not alter the resource are, it may issue a Negative Determination of Applicability, with or without conditions.

B. Definition, Critical Characteristics and Boundary

Definition:

The buffer zone is that area of land extending 100 feet horizontally outward from the boundary of any resource area specified in section 10.02 (I)

Critical Characteristics:

Where surface run-off or ground water from the buffer zone drains toward the resource area, vegetative cover and soils may filter run-off and provide uptake or renovation of pollutants from adjacent areas, thereby protecting water quality within the resource area. The vegetation and soils may slow surface run-off and permit infiltration of precipitation, maintaining the hydrologic regime to which the resource area is adapted

Where surface water or ground water from the buffer zone do not drain toward the resource area, the topography and soils characteristics may help to control the surface and ground water regime in the resource area

C. Presumption

Based on experience to date with projects in the buffer zone, the Conservation Commission shall presume that work in the categories below, within the distances from a resource area. The presumption is rebuttable and may be overcome upon a clear showing that the nature of the proposed work, design measures, construction controls, or site conditions will prevent alteration of the resource area. Depending on site conditions and project characteristics, the Conservation Commission may also find that work at greater distances from the resource area will alter the resource area. For the purposes of the table below “work” means filling, excavation, grading, operation of motorized construction equipment, and storage or stockpiling of earth or construction materials; and “building” means any structure requiring a building permit.

TYPE OF PROJECT:	MINIMUM LIMIT OF WORK	MINIMUM LIMIT OF BUILDING
Residential Lot	30 feet	50 feet
Subdivision Lot (with lot preparation done in conjunction with road construction)	50 feet	
Commercial/Industrial	50 feet	75 feet
Utilities	10 feet (except for permitted crossings)	
Other Roads	25 feet (except for permitted crossings)	
Driveways and Parking Lots	25 feet	

The following activities within the buffer zone may be permitted if the applicant clearly demonstrates that the activity will not alter a resource area. As with any work in the buffer zone, the activities listed below still require (as a minimum) filing of a Request for Determination of Applicability in order for the Conservation Commission to determine if these presumptions apply:

1. Discharge of subsurface drainage from a single residential lot or residential building
2. Discharge or roof and driveway run-off from a total impervious area of less than 4,000 square feet (per project) meeting the above separation distances
3. Mowing or cutting vegetation within the buffer zone, provided that soil is not exposed to erosion, and that sod cover and natural litter layer is maintained
4. Landscape plantings, provided that areas disturbed are mulched immediately and there is no change in grade
5. Construction or installation of fences or structures not requiring a building permit
6. Percolation tests or soils borings carried out to gather information for submittal with a Notice of Intent

It is also presumed that increases in flows to any watercourse will have an adverse impact on the resource area. This includes increases in flows to already existing structures, as well as to new point source discharges

D. General Performance Standards

One of the following must apply:

1. Any work within the buffer zone shall not result in alteration of any resource area, or
2. If work within the buffer zone which alters a resource area is permitted by the Conservation Commission, the alteration of the resource area shall comply with the applicable performance requirements for the altered resource area and any other conditions the Conservation Commission may require to enforce those performance requirements

Point source discharge of surface run-off within or through the buffer zone shall be controlled to minimize increases in peak flow in the watercourse downstream of discharge point for the runoff, as determined for the 2-year, 10-year, and 100-year storms, and to cause no increase in flood elevations outside the project site.

For projects with over 40,000 square feet of added impervious surface, the best practical measures shall be used to minimize increase in flow rates.

10.83 STORMWATER MANAGEMENT

A. Preamble

The goal of managing stormwater is to improve water quality. Urban runoff and discharges from stormwater outfalls are the single largest source responsible for water quality degradation. Stormwater management performance standards establish clear guidelines for stormwater management. Use of the performance standards will prevent or minimize adverse effects upon the interests protected under the Ordinance. Further clarification of stormwater management structures and standards are described in the MA Department of Environmental Protection's Stormwater Management Handbook, Volumes 1 and 2 (March 1997)

B. Definition and Critical Characteristics

Any overland or surficial flow (runoff), which may originate from natural sources (springs, snow melt, precipitation, etc) or human development (roads, driveways, slope changes, lawns, drainage swales, drainage outfalls or other human landscape alterations), which carries a sediment load or pollution that may alter any Area Subject to protection under the Ordinance, shall be considered stormwater which is subject to the stormwater management standards. Where a new point source discharge is proposed, or where increased flows to those already existing are proposed to be discharged to an Area Subject to Protection, a comprehensive Stormwater Management System shall be designed. The Stormwater Management System shall be designed to avoid the degradation of wetland functions and values including those of any receiving or downstream water course. The Stormwater Management System shall be characterized by its ability to meet the State's Stormwater Management Policy's Standards.

C. Presumption

Where a proposed activity discharges stormwater, either through a closed system or an open drainage channel as defined in 10.82 B, the Conservation Commission shall presume that the MA Stormwater Management Standards adequately protect and may be overcome upon clear showing to the contrary.

protect
rebuttable

D. General Performance Standards

- (1) No new stormwater conveyances or additional flows to existing stormwater conveyances may discharge untreated stormwater directly to, or cause erosion or sedimentation in wetlands or waterways
- (2) Stormwater management systems must be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates
- (3) Loss of annual recharge to groundwater shall be minimized through the use of infiltration measures to the maximum extent practicable. annual recharge from the post-development site should approximate the existing site conditions annual recharge from the pre-development or based on soil types
- (4) For new development, stormwater management systems must be designed to remove 80 percent of the average annual load (post-development conditions) of Total Suspended Solids (TSS). It is presumed that this standard is met when:
 - a. Suitable non-structural practices for source control and pollution prevention are implemented;
 - b. Stormwater management Best Management Practices (BMPs) are sized to capture the prescribed runoff volume; and
 - c. Stormwater management BMPs are maintained as designed
- (5) Stormwater discharges with higher potential pollution loads require the use of specific stormwater BMPs. The use of infiltration practices without pretreatment is prohibited
- (6) Stormwater discharges to critical areas must utilize certain stormwater management BMPs approved for critical areas. Critical areas are Outstanding Resource Waters (ORWs), shellfish beds, swimming beaches, cold-water fisheries and recharge areas for public water supplies
- (7) Redevelopment of previously developed sites must meet the Stormwater Management Standards to the maximum extent practicable. However, if it is not practicable to meet the Standards, new (retrofitted or expanded) stormwater management systems must be designed to improve existing conditions.
- (8) Erosion and sediment controls must be implemented to prevent impacts during construction or land disturbance activities
- (9) All stormwater management systems must have an operation and maintenance plan to ensure that systems function as designed

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- (10) Existing wetlands shall not be used for the storage or treatment of storm water
- (11) All stormwater management systems shall be designed to contain, on site, a minimum of 10 year storm
- (12) Detention or retention basins and other structures shall be designed to meet the following standards:
 - a. The applicant shall be responsible for securing by way of a covenant, easement, deed restriction or other legal instrument, a perpetual mechanism and/or fund for the maintenance and repair of the basin or structure by the heirs and assigns of the property on which the basin is located. This may include ownership by the City of Chicopee
 - b. Basin outlet works, to the fullest extent possible, shall be maintenance free and self-cleaning. They shall also be designed to minimize acts of vandalism
 - c. Basin inlet and outlet works shall be designed to avoid scour and erosion of the basin bottom and any discharge channels

10.84

EROSION AND SEDIMENT CONTROL

A. Preamble

Erosion and sedimentation that results from land development has long been acknowledged as the largest identifiable source of pollution and degradation of wetlands. The intent of this section is to describe appropriate standards and measures applicable to all projects involving land disturbance in or within 100 feet of a wetland

B. Definition and Critical Characteristics

Erosion and sediment control shall mean the avoidance or minimization of the diminishment or destruction by degrees of soils, sands, clays, ledge rock other land form, both naturally occurring or man-made; also the avoidance dispersing or depositing of soils, sands, clays, rock or any other naturally unnaturally occurring material

or any
of the
or

C. Presumption

Where a proposed activity involves the removal of vegetative cover, or significant disturbance of the surface, erosion is presumed to occur. This presumption may be overcome by providing evidence to the Commission that site conditions (soil and slope) will prevent sediment from leaving the disturbed area. In that the presumption is deemed to have been overcome, the Commission shall make a written document to this effect

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the event
shall

D. General Performance Standards

Erosion and sediment control measures shall eliminate or reduce impacts to wetland resource areas and their 100-foot buffer zones. Erosion and

sediment
Ordinance

control shall serve to protect the interests identified in the

All plans shall show appropriate erosion control measures. A narrative erosion control plan and construction schedules shall be provided for all areas to be disturbed within a resource area and its 100 foot buffer zone. Specifications shall be provided for both temporary and permanent ground cover. The plan shall describe all methods that will be used to control erosion and sedimentation, in both a temporary and permanent manner. Proposed location of any fill material that will be stockpiled on site must be shown. Perimeter sediment control shall be installed around temporary stockpiles. Temporary erosion control shall generally consist of double-staked trenched hay bales, trenched silt fences and control blankets. Erosion and silt from the permitted activities shall not cause an adverse impact on any wetland resource area cited in these regulations, in either a temporary or permanent manner.

erosion
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regulations, in either a

Vegetative stabilization methods shall be employed. All areas subject to erosion shall be stabilized with loam, seed, hay, mulch and erosion control blankets immediately following construction activities.

blankets

During the months of September through March, when seeding and sodding are impractical, erosion control blankets must be used

10.85

WETLAND REPLACEMENT AND RESTORATION

A. Definition: Wetland replacement shall mean the complete in-kind recreation of a wetland. That shall serve as a fully functioning substitute for one which is displaced or altered. Wetland restoration shall mean the renewing, rebuilding or return a wetland reconfiguring of a wetland that has been temporarily altered, to its original, fully functioning condition.

rebuilding or
return a wetland

B. General Requirements: Wetland replacements and restorations shall be designed and constructed in a manner that is similar to the altered or displaced wetland in water the following ways: surface area; groundwater; elevation; surface elevation; configuration; volume; hydraulic connection; vegetation diversity, vegetation coverage; flood storage capacity and habitat value.

wetland in
water
diversity,

A complete wetland replacement or restoration plan shall be submitted to the Conservation Commission prior to the close of the Public Hearing. Such a plan shall meet all state and local Performance Standards, and shall take all the specific plan shall and Conservation Commission-directed issues into consideration. The plan shall be prepared by an individual with demonstrated experience in wetland science. The plan shall include a description of the qualifications of the individual(s) who prepared the plan. These individuals, or a qualified substitute, will be on site during construction of the replacement of restoration area.

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restoration area.

Normally, no removal, filling, dredging or altering of wetlands shall be mitigated by or compensated for in any way by the creation of a substitute or artificial wetland. Exceptions shall be at the sole discretion of the Conservation Commission. These exceptions will be granted when

artificial
Conservation

temporarily or permanently
accordance with 310 CMR 10.55 (4)

altered wetlands are replaced or restored in
(b) and the following:

profile

1. Wetlands replacement or restorations must be at least equal in size to the wetland that is altered. Replacement wetlands shall be made contiguous
2. To the fullest extent possible, replacement or restoration areas must be constructed prior to all other construction-related activity
3. Wetland soils from the altered wetland shall be excavated and used for the replacement wetland, when these soils are suitable for such a purpose.
These soils shall be removed in such a way as to preserve the soil and seed bank.
4. At least 75 of the surface area of the replacement or restoration must be established with native wetland plant species within two growing seasons. Invasive weed species will be disregarded in determining coverage.
5. If the conditions of (D) above are not met within two growing seasons, the applicant must take corrective steps. This shall be with the approval of the Conservation Commission. These corrective steps may include regarding, replanting, seeding or other steps as necessary
6. No wetland replacement or restoration shall be certified as in compliance, until and unless it has survived for at least two calendar years
7. A combination of natural reseeding, transplanting and new plantings shall be used to re-establish the original vegetational community and structural and species diversity
8. Replaced or restored wetlands shall be monitored in an ongoing manner, and written reports shall be submitted to the Conservation Commission at least twice a year
9. An as built plan of the restoration or replacement area shall be prepared by a registered Land Surveyor and shall be submitted to the Conservation Commission within thirty (30) days after the finish grading

Commission at

- C. Wetland alterations required to access upland parcels will not be allowed if the landowner landlocked the parcel by selling upland access