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SENATE . . . . . No. 412

The Commonwealth of Massachusetts

In the Year Two Thousand Nine

An Act incorporating wetland stewardship and scenic resources into wetland protection..

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

Whereas: the Final Report of the National Wetlands Policy Forum made a direct call for wetland stewardship on private and public lands, and gave equal weight to wetland management along with protection; and

Whereas: the Office of the President of the United States issued a Fact Sheet on Protecting America's Wetlands in August of 1991 encouraging wetland stewardship, wetland mitigation banking, and facultative neutral wetland border determination procedures; and

Whereas: 37 States of the Union now allow or have proposed wetland mitigation banking programs; and

Whereas: the National Recreational Fisheries Policy, which is supported by 63 public and private environmental agencies, supports scientific management and habitat improvement efforts of our open waters; and

Whereas: the open water bodies within the Commonwealth of Massachusetts are vital for water supply, generation of electricity, transportation, aquaculture, irrigation, fisheries, flood control, and recreation; and

Whereas: the Wetlands Protection Act presently prevents the Citizens of Massachusetts from reaping the benefits of wetland stewardship through scientific resource management; it is now in the best interests of the Citizens of Massachusetts to fully incorporate wetland stewardship via scientific wetland resource management into the Wetlands Protection Act. The intent of this Act is to allow the advances in wetland science to bring to the citizens of Massachusetts enhanced values and functions for all our wetland types including open waters, and to create a mechanism under which Massachusetts can take over the implementation of federal wetland permit programs which the Federal Government allows.

SECTION 2. Section 40 of Chapter 131 of the General Laws is hereby amended by inserting after the third paragraph, the following paragraph:

The goals of this section are to encourage land owners and land managers to practice stewardship via science based resource management to protect, manage, and enhance the values and functions traditionally associated with wetlands and open waters; such values being public and private water supply, groundwater supply, flood control, storm damage prevention, prevention of pollution, land containing shellfish, fisheries, and wetland wildlife habitat. The goals of this section include the goals of the North American Waterfowl Management Program and the National Recreational Fisheries Policy.

SECTION 3. Section 40 of Chapter 131 of the General laws is hereby amended by deleting the existing definitions of "bogs, freshwater wetlands, swamps, wet meadows, and

marshes" and replacing those definitions with the following more accurate and precise definitions.

The term "freshwater wetlands" as used in this section shall mean areas where water is at or near the surface for a time period sufficient to produce anaerobic conditions at or near the surface during the growing season. Examples of freshwater wetlands include bogs, marshes, swamps and wet meadows.

The term "bogs," as used in this section, shall mean areas where hydrology is dominated by direct rainfall, i.e. is ombrotrophic; the groundwater occurs at or near the surface for a time period sufficient to produce anaerobic conditions at or near the surface during the growing season; and the vegetated community is dominated by Sphagnum mosses and other peat forming mosses, sedges, heaths or acid tolerant trees and shrubs which live on substantial peat deposits.

The term "marshes," as used in this section, shall mean areas where an emergent vegetative community exists in or near standing or flowing water during most of the growing season and where a significant part of the vegetative community is tolerant of sustained partial submergence. Deep marshes have near continuous standing water and are typically dominated by aquatic plants with floating leaves.

The term "swamps," as used in this section, shall mean areas where groundwater is at or near the surface of the ground throughout much of the growing season, and where a significant part of the vegetative community is dominated by trees and shrubs which are tolerant of anaerobic conditions in the uppermost soil layer caused by sustained saturation.

The term "wet meadows," as used in this section, shall mean areas where groundwater is at or near the surface throughout most of the growing season, and where a significant part of the

vegetative community is composed of various grasses, sedges, rushes and wetland herbs which are tolerant of anaerobic conditions in the topsoil caused by sustained saturation.

SECTION 4. Section 40 of Chapter 131 of the General Laws is hereby amended by inserting, after the existing and revised definitions, the following additional definitions.

The term "access," as used in this section, shall mean the ability to construct a road for two or more houses, or a driveway for one house or other land use. The term "water access," as used in this section, shall mean the ability of a water craft to reach open water, or for a riparian or lake side property owner to reach a beach or open water.

The term "anaerobic" as used in this section means the absence of molecular oxygen (O2), specifically in the uppermost soil layer. Note that O2 is typically found in the air in soil voids, and thus complete soil saturation is required within the uppermost soil layer for anaerobic conditions to evolve over the time required for all the dissolved oxygen to be consumed due to uptake by living organisms or by chemical reactions in the soil environment.

The term "at or near the surface," as used in this section, shall be twelve (12) inches or less below the earth's surface; except a depth of six (6) inches shall apply in very well drained soils, somewhat excessively drained soils, or excessively drained soils, as defined by the USDA Natural Resources Conservation Service.

The term "bank," as used in this section, shall mean naturally occurring banks and beaches; specifically excluding dug ditches, and human made channels lined with cement, paving, riprap, placed stone, or pilings. If a channel was pre-existing the initial ditching, then straightening or moderate changes to the original bank will still qualify a stream channel as a regulated bank.

The term "base flow" as used in this section, shall mean the dry weather flow in any stream or river. Base flow is groundwater being released into the channel or open water bodies during periods lacking direct surface runoff. Maintenance of fisheries, fisheries habitat, and water quality requires preserving and enhancing as much upland groundwater recharge as practical so that base flows are maintained or enhanced.

The term "best management practices" as used in this section are structural and land use practices which can be incorporated into any proposed land use change or any existing land use; and which are used to accomplish any of the following goals; control erosion, reduce pollutant loading, reduce flooding, or enhance groundwater recharge. Best management practices are commonly incorporated into flood control programs and structures.

The term “dissolved oxygen” (DO) as used in this section, means that molecular oxygen (O2) is in existence in the saturated portions of the groundwater at or near the surface in the uppermost soil layer. To determine if dissolved oxygen is or is not present in the saturated groundwater, testing of the groundwater is required by the use of an EPA approved testing method. The groundwater sampling is best done in groundwater taken from shallow monitoring wells ranging in depths from 6 inches to no more than 16 inches, depending on the thickness of the uppermost soil layer or thin soil layers. Wet chemical methods are preferred, since electrodes need to be calibrated at specific air pressures, and air pressures are constantly changing throughout the work day. The use of buried oxidation-reduction electrodes is not accurate because negative readings do not always correlate with zero DO. No one is required to do testing for DO, but when it is used on a site with altered vegetation, or suspected altered hydrology, or altered soils, then the regulating agencies must accept the results of the DO testing if the data covers one high water table season lacking continuous drought conditions. Daily DO

testing is not required, but the testing should begin prior to the start of the growing season, and continue almost every week based on precipitation patters until the water depths in the shallow monitoring wells have dropped to below the uppermost soil layer or below 12 inches in depth, whichever is shallower.

The term "drought," as used in this section, shall mean any period of time starting after three consecutive months when precipitation during each month is less than 90% of the median precipitation and averaging less than 60% of median monthly precipitation for the three months as recorded at the nearest rain gage, or interpolated from the nearest rain gages. Drought conditions lie outside the normal growing season for purposes of verifying wetland versus upland hydrology. The term "extended drought" as used in this section shall mean any period of time starting after four consecutive months when precipitation is below 90% the median value, and the average is less than 50% of monthly median precipitation for the four month period. This is used to determine intermittent versus perennial streams, and to determine regulatory pond size. A drought or an extended drought ends when monthly precipitation exceeds 90% of the median.

The terms "ecologically wet plant species" and "wet dry tolerant plant species," as used in this section, shall refer to obligate (OBL), facultative wet (FACW), and facultative (FAC) excluding facultative-minus (FAC-) plant species as specified in the latest edition of "National List of Plant Species that Occur in Wetlands;" or any newer replacement document which applies to the northeastern part of the United States. The morphology of growth associated with plants in wetland areas under the first condition above shall include the following: buttressed tree trunks, pneumatophores, adventitious roots, shallow root systems, inflated stems, greater plant height, enlarged leaf areas, denser root growth, or basal budding. Basal budding in cut areas does not apply since cutting also produces multiple stems.

There are also forms of growth which exclude listed wetland plants from counting as wetland indicators. These include but are not limited to the following features; stunted plant height, smaller leaf area, plant leaf die-off, and reduced root growth; when compared to the same plant species in other locales or nearby obvious functional wetlands.

The term "enhancement" as used in this section shall mean any activity increasing the value of one or more functions of an existing wetland. The term "enhancement project" as used in this section shall mean any project which includes steps undertaken to improve the quality, function or value of any wetland or open water body. Since adding a pond to a wetland is good for waterfowl, and since it renews the evolutionary cycle of wetlands, ponds are to be counted as wetland enhancements.

The term "environmental model" as used in this section shall mean any descriptive or numerical model used to help understand the real world. While no model can fully duplicate the complexities of the real world, environmental models are useful and acceptable tools in the decision making process under this Act. Environmental models can be used for, but are not limited to, quantifying water resources, predicting flooding, predicting depth of scour for any structure in or under a flowing water body, evaluating fisheries and wetland wildlife habitat for pre- and post-development conditions, and evaluating water quality and water quality impacts. Any environmental model may be used to evaluate a project or project impacts. However, if the model is not a published model, then the basis and references for the model should be presented with the Notice of Intent or other permit application. Preference is to be given to evaluations done using objective numerical models.

The term "growing season" as used in this section, shall mean the time period starting when local valley wetland frosts cease in spring and ending with the first wetland frost in the fall. Since almost all meteorological stations occur in uplands, and since cold air regularly flows down hill into wetlands, the growing season begins when lowest daily air temperatures no longer reach 32° F as recorded on-site, or at the nearest weather stations. The growing season ends on the day when the first frost has occurred on a site or when the lowest air temperature at night has dropped below 32° F as recorded at an on-site monitoring station or at the nearest weather station. Because on very rare occasions, frosts can occur during the summer season, these will not represent the start or end of the growing season for purposes of this Act.

The term "hydrologic year" as used in this section, shall mean the period starting on the first of October, and ending at the end of September of the following calendar year.

The term "median precipitation" as used in this section, shall mean the statistical median monthly precipitation amount, i.e., where 50% of the time the amount of monthly precipitation occurs. All regulations based on this section shall be based on median precipitation for at least 22 years of record if that duration of record exists.

The term “100 year flood” as used in this section shall be based on (a) statistical analyses of actual stream flows from USGS qualified gauging stations for larger streams and rivers, or (b) shall be based on peak flow analyses using the climatic precipitation atlases prepared by the Northeast Regional Climate Center at Cornell University, or any newer rainfall atlases which are created by newer climatic precipitation studies using a longer time record for rainfall analyses.

The term "regional" as used in this section, shall mean any group of cities or towns acting as a unified body for wetland or open water body management or enhancement purposes.

"Regional" also applies to project impacts, beneficial or harmful, when significant impacts extend beyond the limits of any single city or town.

The term "relict wetland," as used in this section, means any area that has been significantly drained or filled by the action of humans or nature, or has had substantial water diverted from it, so that a functional wetland no longer exists. Relict wetlands are recognized by any of the following; collapse or wasting (oxidation) of peat; failure to satisfy the soil saturation requirement during the late spring during a non-drought growing season; invasion of dry herbs, shrubs or trees; or younger shrubs or trees that do not show the form or vigor of wetland conditions; or by presence of dissolved oxygen in the saturated portion of the upper soil layers within 12 inches of the ground surface during the high water table season in a non-drought period. Older wetland trees and shrubs are expected to retain wetland growth forms in relict wetlands due to the longevity of such plants, but these long living forms are not indicative of active wetland conditions in relict wetlands. Relict wetlands are not regulated as wetlands under this section; however they may still be regulated as upland floodplain if they are shown by peak flow calculations to be flooded during a 100 year flood.

The term "riparian" as used in this section, shall mean land situated on, or abutting, the bank of any flowing water body. The term "flowing water body" as used in this section shall mean any river or interment stream, excluding dug ditches, gutter flow, or erosion gullies.

The term "significant negative impact" as used in this section, shall mean that the end result of a project or proposed land use change which is calculated to result in a violation of water quality standards or guidelines, or which increases downstream peak flows for rainfalls or runoff events from a 5 year flood or up to a 100 year flood, or which results in a negative change

greater than 20% in some other wetland or open waterbody character or function. Significant impacts can be positive or negative, and significant positive impacts are encouraged by this Act. The creation or expansion of a pond, or pond dredging to remove excessive plant growth or accumulated organic sediments is deemed a significant positive impact.

The term "soil saturation," as used in this section, shall mean observed standing groundwater in a monitoring well, or in a freshly opened test pit. These soil saturation tests must yield positive results at or near the surface for much of growing season excluding droughts, for any area to be a wetland.

The term "uppermost soil layer" means the layer of soil, natural or altered, starting at the surface of the earth, excluding the layer of leaves or dead vegetation, and it stops at the depth where the B horizon starts, or 12 inches, whichever is less. In cases where there are thin layers of soil over a buried topsoil; e.g., thin layers inside a cranberry bog, or thin layers of sands deposited by flooding; the uppermost soil layer shall include all of these thin layers until a more consistent soil layer is reached, or the thickness of the thin layers reaches a depth of 12 inches.

The term "vernal pool," as used in this section, shall mean confined basin depressions, which in most years hold water for a minimum of two continuous months, during the spring or summer, and which contain at least one quarter acre foot of water at least once per year, and which is permanently free of fish, and which is proven to breed reptiles or amphibians, and which stays flooded for a long enough time period to allow the immature forms of these vertebrates to complete metamorphoses into land dwelling forms, exclusive of drought conditions. Regulated vernal pools exclude man-made test holes, basement foundation holes, human made detention and retention basins; or other areas less than 1,000 square feet in size

which at their deepest at average annual high water are less than 18 inches deep and thus are subject to drying up and killing tadpoles and other young aquatic stages of vertebrates in most years. Vernal pools can be enhanced as long as the work occurs outside the breeding and aquatic maturation seasons of reptiles and amphibians. Vernal pools can be replicated by relocation to distances of up to 600 feet from the existing pool as long as there is one overlapping spring season to confirm successful replication and as long as 50% of the edge of the relocated replicated pool has an undisturbed forest or vegetated edge. Then the pre-existing vernal pool can be filled after the completion of the aquatic vertebrate maturation season. Relocation of egg masses and immature animals is encouraged from the pre-existing pool to the replicated pool during the overlap season.

The terms "wetland banking" and "wetland mitigation banking," as used in this section, shall mean activities of wetland restoration, enhancement, preservation, or creation for the purpose of providing compensating credit for future proposed wetland alterations, either on-site or off-site. Benefits credited on any site can be sold or credited for projects in the same city or town. Regional projects can apply wetland banking to or from other cities or towns involved in any regional project.

The term "wetland border," as used in this section, shall mean the line below which all three of the following conditions are satisfied in undisturbed natural sites. First, the vegetative community must consist of at least 50% of areal coverage of naturally occurring ecologically wet plant species that do not show signs of stunted growth; or wet dry tolerant plant species showing the form or vigor (enlarged size) associated with wet conditions. This is known as the "facultative-neutral" method. Second, the soils must be wetland hydric soils. Third, anaerobic conditions must exist for a period of time for at least two weeks during the growing season in the

uppermost soil layers. No one is required to do testing for DO, and thus the first two criteria may be used as a presumption of the third in undisturbed areas. See the definition of "dissolved oxygen" in this Section. However, if measured dissolved oxygen levels from DO testing are done per the definition of "dissolved oxygen" and testing results fail to show zero DO in shallow monitoring wells for the required time period of two continuous weeks in a non-drought high water table growing season, then the uninterrupted presence of dissolved oxygen, or lack of the two week duration of anaerobic conditions, means that the area in question is not a wetland due to lack of the driving force of anaerobic conditions. The jurisdictional limits of all types of vegetated wetlands are determined by a wetland border.

The terms "wetland hydric soils," or "hydric soils" as used in this section, shall include peat, organic muck, or topsoils with immediately underlying portion of a subsoil layer showing gleying or low chroma mottling, soils with iron or manganese concretions, or soils satisfying the conditions described in the most recent edition of "Field Indicators for Identifying Hydric Soils in New England" or any superseding document. Soils with relict hydric features but which do not have the required wetland hydrology or required anaerobic conditions are excluded as hydric soils and as wetlands.

The term "wetland succession," as used in this section, shall mean the following generalized sequence in wetland evolution. For freshwater wetlands the sequence is pond, to deep marsh, to shallow marsh, to shrub swamp, to forested swamp, to bog. For salt water wetlands the sequence is open water or salt pond, to low salt marsh, to high salt marsh, to fresh marsh, to fresh swamp, to bog.

The term "wetland wildlife," as used in this section, shall mean those vertebrate animals that have one or more necessary habitat requirements which consist of features found only in vegetated wetlands or open waters. Examples of wetland wildlife include, but are not limited to; turtles, fish, waterfowl, wading birds, and aquatic mammals such as muskrat, mink, otter, and beaver. Protection, management and enhancement of the habitat for the larger of such listed animals is presumed to provide habitat benefits for all smaller wetland animals, unless the smaller animals are federally listed endangered or threatened species on site. Mass. State Listed Species that are not state listed species in abutting states, or in Provinces of Canada, and which are merely at the limits of their range in Massachusetts shall not be given special protection under this section.

The terms "wetland wildlife habitat," as used in this section, shall mean vegetated wetland and open water areas subject to this section which, due to their plant community composition and structure, hydrologic regime, or other characteristics; provide important food, shelter, migratory, over-wintering, or breeding areas for wetland wildlife. Upland floodplain areas beyond the 10 year floodplain or uplands more than 25 feet from bordering wetlands are specifically excluded from this definition. Any vegetated wetland less than 5% of an acre in size is presumed to be too small to have significant wetland wildlife habitat value; i.e., small puddled or damp areas are to be excluded from wetland wildlife habitat regulations unless they are certified vernal pools. Any part of a vegetated wetland less than 10 feet in width is exempt from wetland habitat regulation except that structures allowing passage of flows must also allow fish and wetland wildlife passage if applicable.

SECTION 5. Section 40 of Chapter 131 of the General Laws is hereby amended by inserting after the expanded list of definitions, the following paragraphs related to protection, management and enhancement of vegetated wetlands and open waters.

For upland areas that are adjacent to vegetated wetlands and open waters, and which are not in floodplains and riverfront areas, jurisdiction under this section is limited to sediment and erosion control, water quality maintenance using best management practices, and flood control. Beyond those three values, the use of adjacent uplands lying outside the floodplain or riverfront area may not be constrained by this section.

For access to uplands or isolated uplands under a single ownership; the ability to construct a road with sidewalks, or a driveway, shall not be infringed on, nor impaired, by this section. That is, this section does not deny reasonable access for use of uplands with a road width of normal size, Planning Board approved radius of curves, and standard construction. Standard construction includes the paved roadway; safety strips between roadway and sidewalk; one or more sidewalks as requested or required by the Planning Board, Fire Department, or Police Department; and a reasonably sloped bank. The use of retaining walls may not be mandated for any access, unless state-listed or federally listed endangered species are at risk. Two access roads or ways are allowed for any project with over ten residential units, and under all circumstances where the Planning Board, Fire Department or Police Department shall require or request such double access for the public safety, well being, or welfare. This section acknowledges that upland access may sometimes result in a loss of on-site wetlands, especially in areas where the amount of isolated upland is small. In these cases, where on-site wetland replication is constrained, the difference can be made up by purchasing wetland banking credits from previously constructed wetlands in the same city or town or within the same drainage basin

in an abutting city or town. Removal of accumulated organic sediments in existing ponds is to be routinely allowed providing there is an adequate erosion and sediment control program, and providing that there are no state-listed or federal endangered species on site. Maintenance of ponds including weed harvesting; and use of short lived chemical pesticides, herbicides, or nutrient inactivators such as alum or potassium permanganate; are procedures exempt from this section providing there are no federal or state listed species which would be impacted. If the timing of dredging or pond maintenance can be done when no federal or state listed animal species are present, then dredging or maintenance is to be routinely permitted. Wildlife management programs and activities conducted by, or funded by, the U.S. Fish and Wildlife Service; or which are part of, or which meet the standards of the North American Waterfowl Management Plan, are exempt from this section.

Any cranberry bog or wetland crop area expansion shall be approved with reasonable conditions as long as there is a net increase in wetland area with the cranberry bog or wetland crop land with associated ponds counting as a wetlands; as long as flood control is enhanced, as long as there is a reasonable effort to enhance wetland wildlife habitat; and as long as agricultural best management practices and integrated pest management programs are part of the cranberry bog or wetland crop management program. Portions of cranberry bogs or wetland crop areas which were constructed in uplands, or which no longer have wetland hydrology without the application of irrigation water, are to be treated as uplands under this section.

The creation of salt ponds in coastal wetlands is allowed providing that the bottom of the proposed pond will be sand or gravel, and providing that there is to be an excavated meandering stable channel to a nearby major salt water body. A created salt pond may not be so large that it creates erosion problems which will affect the structural stability of surrounding marshes.

Any project that can be expected to improve a majority of wetland values that apply to a given wetland type; by use of modern environmental data, models, or evaluation techniques; must be approved with reasonable conditions, providing that flood control and wetland wildlife habitat values are two of the improvements. Since enhancement of a majority of wetland values and functions is to be a goal for any wetland alteration to be permitted, there is no area limitation to be applied to a wetland alteration or enhancement project.

Replacement of wetlands is not restricted to exact replication, but rather replacement is encouraged when an earlier wetland succession stage is offered as a replacement. The creation of ponds is allowed in vegetated wetlands and ponds may be used to replace or replicate other wetland types.

Any project that is projected to reduce the amount of tannic acid or dissolved iron or manganese released from a wetland shall be deemed to be an improvement to the prevention of pollution value under this section.

Increased flood detention is allowed in wetlands providing that water elevations are not permanently raised or lowered within the flooded area. Berms or other flood control structures are allowed in wetlands without wetland replication but they must accommodate passage of wetland wildlife, and fish if applicable. Temporary increases in depth and duration of flooding from flood control activities are not considered to be a significant negative impact or alteration of a wetland, as long as the increase in flooding of 0.25 feet does not last for over five days after a 100 year 24-hour rainfall event, and as long as the projected long term normal groundwater elevation is not increased or decreased by more than one-quarter foot.

Retention and detention basins frequently have wetlands form at the bottom and sides of these flood control structures. Because retention and detention basins require routine maintenance, especially where best management practices are employed, the wetlands within the flood control basins shall not be regulated as jurisdictional wetlands under this section, and routine maintenance does not require an Order of Conditions nor a Notice of Intent as long as the flood control basin is not made smaller and as long as the hydraulics of the outlet structure is replaced but not significantly altered.

Any person or organizations may create a wetland mitigation banking project. After creation, the function of the wetland shall be evaluated by a natural scientist with at least a master's degree in botany, ecology, geology, geophysics, hydrology, wildlife management, zoology; or oceanography in the case of coastal wetlands. The value of the created wetland can be charged or credited towards proposed wetland alterations on-site or off-site in lieu of replication on a project by project or site by site basis. After completion of construction and evaluation, the completed mitigation banking value or credit can be sold or transferred. Mitigation banking can be charged or credited to any project in the same town or within five miles of the site within the same river basin. The Department of Environmental Protection shall keep a record of mitigation banking deposits and withdrawals, or may assign this duty to another state agency, or may contract such record keeping to a non profit or profit making organization. There may be a charge for wetland banking record keeping, fees not to exceed cost of record keeping plus a 10% profit. The final decision on record keeping shall be made on a cost effective basis, by qualified persons at the lowest billable cost to the public.

Wetland management using procedures classed as Open Marsh Water Management (OMWM) and Integrated Marsh Management (IMM) are to be routinely allowed as wetland management, and for creating enhanced wetland values for mitigation banking.

Water access to open waters from adjacent uplands is not to be prohibited by this section and wetland replication shall not be required for small boat channels.

The filing fee to be paid to the Commonwealth with any Notice of Intent shall not exceed $1,000 because the initial state review and assignment of a file number is not anticipated to involve over $1,000 of manpower and related costs. The filing fee paid to any city of town under this section shall not exceed $2,000. These upper limits of permitting cost can be adjusted for inflation every five years.

The provisions of this section shall not apply to normal maintenance and cleaning of existing ditches, farm ponds, existing culverts, and flood control structures; nor to relocation of farm ditches and farm ponds, nor to any continuous or intermittent land use or water use practice which has been ongoing for over a decade, nor to plowing of wetland fingers which protrude into upland farm fields. Relocation of nonfarm man made ditches and ponds is allowed, but filing a Notice of Intent an Order of Conditions is required.

The removal of beaver dams which flood farm fields or any building, road, driveway or septic field is also allowed, however, the technique for removal of a beaver dam may not send a flood wave downstream which exceeds a two year flood peak, and a review of the removal method shall be expedited under emergency provisions of this section.

New waterfowl impoundments and pond creation are encouraged in wetlands as long as at least one-third of the pond edge is sloped and planted for waterfowl habitat.

Private gardens are of benefit to society at large. Existing private gardens; and new private gardens covering less than one-tenth of an acre of wetlands are exempt from the provisions of this Section as long as there is no change in elevation of the land surface in excess of one-half foot in any existing wetland.

SECTION 6. Section 40 of Chapter 131 of the General Laws is hereby amended by inserting the following paragraphs at the end of the last paragraph.

Within one year of passage of this bill, the department shall apply to take over federal wetland and dredging permits and incorporate them within the state wetland permit process. This is to eliminate duplication of federal and state permitting and the months of delay typical of federal permits which start after state permits have been issued. If a conservation commission or other board acting under Section 40 of Chapter 131 has failed to hold a hearing within the twenty one day period as required, or if a commission or board, after holding and closing such hearing, has failed within twenty one days therefrom to issue an order of conditions, then the project applicant may request that the department take over the permit process. Given the time lost by delay on the part of the local permitting agency, the department shall conduct a hearing and/or site inspection within four weeks of receipt of an appeal due to inaction on the part of the local board, and shall issue an Order of Conditions within 21 days of the site inspection, or hearing, or receipt of all requested information. If there is a legal challenge to a decision by the department, any party has the option of taking this matter before the land court, rather than through the DEP Adjudicatory hearing process, or the district or superior court system. Such a land court trial may be de novo.

SECTION 7. Section 40 of Chapter 131 of the General Laws is hereby amended by inserting the following paragraphs at the end of the last paragraph.

A wetland or open water enhancement project may be undertaken by any city or town, or by any group of cities or towns, or by a riparian land owner, or by any public action group which has acquired a riparian easement and right of access. If a city or town, or any group of cities and towns, desires to implement a wetland or open water body enhancement project, the project may be paid for by the cities or towns via routine taxing, or via a proposition two-and-a-half over-ride. The project must be approved by simple majority of the cumulative regional vote on a referendum held within cooperating cities and towns.

A possible enhancement project could be the Charles River Restoration Project, which shall have as its cornerstone the dredging of Cedar Swamp Pond in Milford. Reducing the nutrient load and improving the water quality of the outflow from this highly eutrophic wetland/pond system will benefit the entire Charles River and the bordering communities. The cost of this project can be funded by a state or federal agency, a non-profit organization, or shall be shared by the communities of Milford, Sherborn, Wellesley, Needham, Bellingham, Franklin, Millis, Norfolk, Medfield, Dover, Dedham, Weston, and Waltham after a regional vote to approve the project and its funding. The Mass. Division of Environmental Management in cooperation with the Division of Fisheries and Wildlife shall review the full scope of the project and shall review project implementation and management.

SECTION 8. Section 43B of the General Laws is hereby amended by inserting the following paragraphs at the end of the last paragraph.

Any city or town which creates or has created a bylaw that affects or regulates work in or near wetlands, said local bylaw must have its definitions and time tables compatible with this section within two years of the signing or adoption of this law, and such local bylaw shall not exclude wetland mitigation banking, nor the enhancement and management goals of Chapter 131, Section 40 as revised. Local wetland bylaws and regulations shall not have jurisdiction over the positioning of utilities or buildings in upland areas long as the building or the section of utility line does not intrude into wetland areas or lies more than fifteen feet from the wetland border.

For upland areas that are adjacent to vegetated wetlands and open waters, and which are not in floodplains and riverfront areas, jurisdiction under this section for any existing or new local wetland bylaw is limited to sediment and erosion control, water quality maintenance using best management practices, and flood control. Beyond those three values, the use of adjacent uplands lying outside the floodplain or riverfront area may not be constrained by any local town wetland bylaw, nor by local wetland regulation, nor written or unwritten local wetland policy. If a town or city wishes to impose local regulations on uplands adjacent to wetlands and open water bodies, or wishes to impose regulations in upland floodplains beyond that of erosion control, water quality maintenance, and flood control; via a local wetland bylaw, regulation, or written or unwritten policy; then the city or town must purchase land use easements on each site at full cost of lost or restricted land use value.

For access to uplands or isolated uplands under a single ownership; the ability to construct a road with sidewalks, or a driveway, shall not be infringed on, nor impaired, by any local wetland bylaw unless the local government pays for full cost of the lost land value at full market value. That is, unless paid for by the local government, this section does not deny

reasonable access for use of uplands with a road width of normal size, Planning Board approved radius of curves, and standard construction. Standard construction includes the paved roadway; safety strips between roadway and sidewalk; one or more sidewalks as requested or required by the Planning Board, Fire Department, or Police Department; and a reasonably sloped bank. The use of retaining walls may not be mandated for any access, unless state-listed or federally listed endangered species are at risk. Two access roads or ways are allowed for any project with over ten residential units, and under all circumstances where the Planning Board, Fire Department or Police Department shall require or request such double access for the public safety, well being, or welfare. This section acknowledges that upland access may sometimes result in a net loss of wetlands, especially in areas where the amount of isolated upland is small. In these cases, wetland replication is limited to an area of less than 20% of the isolated upland under a single ownership if adjacent non-isolated upland is not available for wetland replication. The difference can be made up by purchasing wetland banking credits in the same city or town or within the same drainage basin in an abutting city or town.

Portions of cranberry bogs or wetland crop areas which were constructed in uplands, or which no longer have wetland hydrology without the application of irrigation water, are to be treated as uplands under all local wetland bylaws and regulations.

Flood control structures including detention and retention basins and their maintenance may not be regulated as wetlands under any local wetland bylaw, regulation, or written or unwritten policy.

Regional enhancement projects permitted under Chapter 131, section 40, are exempt from all local wetland bylaws.

If a Conservation Commission or other town board acting under a local wetland bylaw, shall fail to issue its local Order of Condition with 21 days of the closing of the hearing, such failure to act shall be deemed an approval of the application using the conditions of approval in the Superseding Order of Conditions issued under Chapter 131, section 40.

If there is a legal challenge to a decision under any local wetland bylaw, the applicant has the option of taking this matter before the land court, rather than through the DEP adjudicatory hearing process, or the district or superior court system. Such land court trial may be de novo. The local bylaw trial should be combined with any appealed Adjudicatory Decision under Chapter 131, Section 40.

SECTION 9. Section 3AA is hereby added to Chapter 143 of the General Laws.

Maintenance of base flow is critical to fisheries and water quality. Reduction of runoff rates and volumes are important for purposes of flood control. Water and water quality impacts of new buildings and related impervious surfaces, regardless of their distances to wetlands and open water bodies, may have a negative impact on the public well being. To maintain the base flow to open water bodies, to reduce downstream flooding, and to reduce pollutant transport to wetlands and open water bodies, the following new performance standards are to be added to the state building code and all local building regulations.

For all new one and two family dwellings or private garages, or where the roof area is to be expanded for such existing buildings, there shall a dry well volume of 50 cubic feet for every 400 square feet of roof surface or it must be demonstrated that soil permeability will recharge at least 100% of the runoff from a 2 year 24 hour rainfall event. At least 90% of roof runoff must have direct access to these dry wells. Dry wells shall not be filled with sand or broken stone, but

shall be a void space defined by uncemented dry well blocks, plastic recharge structures, or pre-cast concrete recharge galleys. Multi-family, commercial and industrial buildings, or expansion of the roof area thereto must also recharge roof runoff, but in lieu of the dry well volume required above, standard hydrological or engineering calculations and techniques may be required for site specific design of larger recharge structures. The design criteria for more than six unit multi-family, or for commercial and industrial buildings is to recharge at least a volume of from a 2 year 24 hour storm from the total roof and other impervious areas. These requirements shall not apply in areas with exposed or shallow bedrock.

The discharge of animal waste into wetlands and open water bodies is a significant water quality problem affecting public health, recreation, fisheries, water quality, and shellfish. Thus above-ground disposal of animal fecal wastes needs to be curtailed statewide. Thus each new residential structure is required to provide an underground structure for the disposal of pet wastes. The State Board of Building Regulations and Standards in cooperation with the Department of Environmental Protection shall specify the required size and character of these underground fecal waste disposal facilities in 780 CMR within one year of signing of this legislation. In addition, each existing one or two family dwelling where a dog resides for a period of over two months, and all multi-family residential buildings allowing dogs to live on the premises, have two years from the date of adoption of the final regulations to install the required underground animal fecal disposal structures. Existing one and two family dwellings are exempt from this provision as long as there is no dog in residence for more than two months. New and renewal dog licenses require proof of installation of the required animal fecal disposal structures. Existing residential structures exempt from this section of the law can occur only in areas with

permanent high water table within two feet of the surface of the land or where shallow bedrock or bedrock outcrops preclude such below ground structures.

SECTION 10. Section 137 of Chapter 140 is hereby amended by adding the following paragraphs at the end.

The discharge of animal waste into wetlands and open water bodies is a significant water quality problem affecting public health, recreation, fisheries, water quality, and shellfish. Thus above-ground disposal of animal fecal wastes needs to be curtailed statewide. Therefore it is a civil infraction for any individual to place fecal animal waste into a storm water catch basin, storm drain, or any ditch, or open water body because such an action results in direct nutrient and bacterial pollution of receiving waters. Any such disposal carries a $50. fine for the first offense, with fines increasing by $50 for each subsequent offense within two years up to a maximum of $250. Disposal or leaving of dog fecal waste on any paved road or sidewalk, or on any impervious surface tributary to an open water body via direct runoff, or via a storm water catch basin, storm drain or ditch feeding an open water body; or within 25 feet upgradient from any impervious surface tributary to an open water body via direct runoff or via a storm drain or ditch feeding an open water body is hereby prohibited except for seeing-eye dogs, and other medical service dogs whose owners are physically unable to pick up fecal dog waste. Any such disposal or leaving carries a $50 fine for the first offense, with fines increasing by $50. for each subsequent offense within two years up to a maximum of $250. 80% of the fecal disposal or leaving fines go to the general fund or animal control funds within the cities and towns issuing the violation document, and 20% go to the courts imposing such fines. Fine fees going to the court system can be used to improve any aspect of the court buildings or system, including new

equipment or purchase of supplies or services. The magnitude of the fines in the two paragraphs above are to be adjusted for inflation every five years.

In addition, each existing one or two family dwelling where a dog resides for more than two months, and all multi-family residential buildings in which dogs reside have two years from the date of adoption of the final building code regulations to install the required underground fecal disposal structures. Existing one and two family dwellings are exempt from this provision as long as there is no dog in residence for more than two months. New dog licenses and renewal of dog licenses require proof of installation of the required animal fecal disposal structures. Existing residential structures exempt from this provision are only in areas with permanent high water table within two feet of the surface of the land, or where shallow bedrock or bedrock outcrops preclude such below ground structures.

Sixty days prior to the required time of issuing or renewing a dog license, each license holder shall be notified in writing of these animal fecal waste control requirements.

SECTION 11. Section 13 of Chapter 21A of the General Laws is hereby amended by adding the following paragraph at the end.

The use of hydrogen peroxide in industrial strength of up to 52% concentration by weight is allowed as a septic field restorative measure. Application of hydrogen peroxide is to be done only under the supervision of experienced professionals who have worked on hydrogen peroxide treatment of 25 or more septic fields and who are approved System Inspectors. Septic trench pumping is recommended but not required before hydrogen peroxide application to septic fields. Distribution box cleaning and pumping is mandatory prior to hydrogen peroxide application.

SECTION 12. Chapter 131A. Section 1, has the following definitions added or amended.

"Significant portion" as used in this Section shall mean 40% of the range of the species as of 1990.

"Extirpation" as used in this section shall mean extinction or elimination over a significant portion of the range of any species. This means that species not threatened or endangered, or of special concern over a significant part of their entire range may not acquire special listing or protection in Massachusetts under Chapter 131A. For example, there are species that are cold climate species that will naturally become extirpated in Massachusetts if the climate warms, and there are species which are warm climate species that will naturally become extinct in Massachusetts if the climate turns colder. Efforts to protect these species under Chapter 131A will be futile in preventing extinction or extirpation in Massachusetts and will result in significant economic harm to land owners with no long term benefit to society.

Examples are as follows. The blue-spotted salamander Ambystoma laterale is a sub-arctic species with a range from Massachusetts to northern Illinois, to Manitoba to James Bay to southern Labrador to

Nova Scotia. It is described as a relatively common species in many areas of its range. The marbled salamander Ambystoma opacum is a warm climate species ranging from southern New Hampshire, to northern Florida to east Texas to central Indiana. The species is common in much of its range. Species with such wide ranges and common occurrence are not to be classed as endangered, threatened, of special concern in Massachusetts under Chapter 131A unless federally listed. The director of the Massachusetts Division of Fisheries and Wildlife is to review the list of endangered, threatened or special concern species in Massachusetts within two years of passage of this law, and to remove all species from the species list which are just at or

near the limits of the natural range in Massachusetts and which are not at risk for a significant portion of their natural range.

The definition of the term "Species of special concern" as defined, shall be amended by changing the last three words "within the commonwealth" to "over a significant portion of the range."

The term “state-listed species” shall mean any species assigned the status of endangered, threatened or species of special concern within the Commonwealth of Massachusetts.

Animal species are to be removed from the list of state listed species when the number of known habitat areas exceeds 300 for any species, or when the total estimated habitat area exceeds three-percent of the area of the state. New animal species cannot be added to the state-listed species if the animal is not at risk over a significant part of its present range, or if the animal is moving into Massachusetts due to climate change associated with global warming or global cooling.

Habitat improvement for all state-listed species is allowed. Habitat improvement for species which are federally listed is also allowed after review and approval of the enhancement project by the U.S. Fish and Wildlife Service.

SECTION 13. Massachusetts General Laws, Chapter 30, §§ 61 through 62H are hereby amended as follows.

Since it is intended to encourage private citizens to enhance wetland functions and values, it is intended that permitting costs be reduced for modest size projects. Thus, alteration

of freshwater wetlands and water bodies is exempt from this Act as long as the total area of wetland and waterbody alteration is less than five acres and as long as the length of altered bank is less than 2,000 feet in length. Alteration of saltwater wetlands are exempt from this section as long as the total area of salt water wetland and salt water body alteration is less than two acres. Wetland Projects using OMWM, IMM, or doing their wetland replication via wetland banking, are exempt from this Act unless wetland alterations exceed ten acres.