

SENATE No. 412

The Commonwealth of Massachusetts

PRESENTED BY:

Moore, Richard (SEN)

To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:

The undersigned legislators and/or citizens respectfully petition for the passage of the accompanying bill:

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

PETITION OF:

NAME:

Moore, Richard (SEN)

DISTRICT/ADDRESS:

Worcester and Norfolk

[SIMILAR MATTER FILED IN PREVIOUS SESSION
SEE SENATE, NO. S00520 OF 2007-2008.]

The Commonwealth of Massachusetts

In the Year Two Thousand and 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:*

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

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

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

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

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

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

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

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

32 SECTION 3. Section 40 of Chapter 131 of the General laws is hereby amended by deleting the
33 existing definitions of "bogs, freshwater wetlands, swamps, wet meadows, and marshes" and
34 replacing those definitions with the following more accurate and precise definitions.

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

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

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

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

53 The term "wet meadows," as used in this section, shall mean areas where groundwater is
54 at or near the surface throughout most of the growing season, and where a significant part of the
55 vegetative community is composed of various grasses, sedges, rushes and wetland herbs which
56 are tolerant of anaerobic conditions in the topsoil caused by sustained saturation.

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

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

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

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

72 The term "bank," as used in this section, shall mean naturally occurring banks and
73 beaches; specifically excluding dug ditches, and human made channels lined with cement,
74 paving, riprap, placed stone, or pilings. If a channel was pre-existing the initial ditching, then

75 straightening or moderate changes to the original bank will still qualify a stream channel as a
76 regulated bank.

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

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

87 The term "dissolved oxygen" (DO) as used in this section, means that molecular oxygen
88 (O₂) is in existence in the saturated portions of the groundwater at or near the surface in the
89 uppermost soil layer. To determine if dissolved oxygen is or is not present in the saturated
90 groundwater, testing of the groundwater is required by the use of an EPA approved testing
91 method. The groundwater sampling is best done in groundwater taken from shallow monitoring
92 wells ranging in depths from 6 inches to no more than 16 inches, depending on the thickness of
93 the uppermost soil layer or thin soil layers. Wet chemical methods are preferred, since
94 electrodes need to be calibrated at specific air pressures, and air pressures are constantly
95 changing throughout the work day. The use of buried oxidation-reduction electrodes is not
96 accurate because negative readings do not always correlate with zero DO. No one is required to

97 do testing for DO, but when it is used on a site with altered vegetation, or suspected altered
98 hydrology, or altered soils, then the regulating agencies must accept the results of the DO testing
99 if the data covers one high water table season lacking continuous drought conditions. Daily DO
100 testing is not required, but the testing should begin prior to the start of the growing season, and
101 continue almost every week based on precipitation patters until the water depths in the shallow
102 monitoring wells have dropped to below the uppermost soil layer or below 12 inches in depth,
103 whichever is shallower.

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

114 The terms "ecologically wet plant species" and "wet dry tolerant plant species," as used in
115 this section, shall refer to obligate (OBL), facultative wet (FACW), and facultative (FAC)
116 excluding facultative-minus (FAC-) plant species as specified in the latest edition of "National
117 List of Plant Species that Occur in Wetlands;" or any newer replacement document which
118 applies to the northeastern part of the United States. The morphology of growth associated with
119 plants in wetland areas under the first condition above shall include the following: buttressed tree

120 trunks, pneumatophores, adventitious roots, shallow root systems, inflated stems, greater plant
121 height, enlarged leaf areas, denser root growth, or basal budding. Basal budding in cut areas
122 does not apply since cutting also produces multiple stems.

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

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

133 The term "environmental model" as used in this section shall mean any descriptive or
134 numerical model used to help understand the real world. While no model can fully duplicate the
135 complexities of the real world, environmental models are useful and acceptable tools in the
136 decision making process under this Act. Environmental models can be used for, but are not
137 limited to, quantifying water resources, predicting flooding, predicting depth of scour for any
138 structure in or under a flowing water body, evaluating fisheries and wetland wildlife habitat for
139 pre- and post-development conditions, and evaluating water quality and water quality impacts.
140 Any environmental model may be used to evaluate a project or project impacts. However, if
141 the model is not a published model, then the basis and references for the model should be

142 presented with the Notice of Intent or other permit application. Preference is to be given to
143 evaluations done using objective numerical models.

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

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

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

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

164 The term "regional" as used in this section, shall mean any group of cities or towns acting
165 as a unified body for wetland or open water body management or enhancement purposes.
166 "Regional" also applies to project impacts, beneficial or harmful, when significant impacts
167 extend beyond the limits of any single city or town.

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

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

184 The term "significant negative impact" as used in this section, shall mean that the end
185 result of a project or proposed land use change which is calculated to result in a violation of

186 water quality standards or guidelines, or which increases downstream peak flows for rainfalls or
187 runoff events from a 5 year flood or up to a 100 year flood, or which results in a negative change
188 greater than 20% in some other wetland or open waterbody character or function. Significant
189 impacts can be positive or negative, and significant positive impacts are encouraged by this Act.
190 The creation or expansion of a pond, or pond dredging to remove excessive plant growth or
191 accumulated organic sediments is deemed a significant positive impact.

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

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

202 The term "vernal pool," as used in this section, shall mean confined basin depressions,
203 which in most years hold water for a minimum of two continuous months, during the spring or
204 summer, and which contain at least one quarter acre foot of water at least once per year, and
205 which is permanently free of fish, and which is proven to breed reptiles or amphibians, and
206 which stays flooded for a long enough time period to allow the immature forms of these
207 vertebrates to complete metamorphoses into land dwelling forms, exclusive of drought

208 conditions. Regulated vernal pools exclude man-made test holes, basement foundation holes,
209 human made detention and retention basins; or other areas less than 1,000 square feet in size
210 which at their deepest at average annual high water are less than 18 inches deep and thus are
211 subject to drying up and killing tadpoles and other young aquatic stages of vertebrates in most
212 years. Vernal pools can be enhanced as long as the work occurs outside the breeding and aquatic
213 maturation seasons of reptiles and amphibians. Vernal pools can be replicated by relocation to
214 distances of up to 600 feet from the existing pool as long as there is one overlapping spring
215 season to confirm successful replication and as long as 50% of the edge of the relocated
216 replicated pool has an undisturbed forest or vegetated edge. Then the pre-existing vernal pool
217 can be filled after the completion of the aquatic vertebrate maturation season. Relocation of egg
218 masses and immature animals is encouraged from the pre-existing pool to the replicated pool
219 during the overlap season.

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

226 The term "wetland border," as used in this section, shall mean the line below which all
227 three of the following conditions are satisfied in undisturbed natural sites. First, the vegetative
228 community must consist of at least 50% of areal coverage of naturally occurring ecologically wet
229 plant species that do not show signs of stunted growth; or wet dry tolerant plant species showing
230 the form or vigor (enlarged size) associated with wet conditions. This is known as the

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

368 The filing fee to be paid to the Commonwealth with any Notice of Intent shall not exceed
369 \$1,000 because the initial state review and assignment of a file number is not anticipated to
370 involve over \$1,000 of manpower and related costs. The filing fee paid to any city or town under
371 this section shall not exceed \$2,000. These upper limits of permitting cost can be adjusted for
372 inflation every five years.

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

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

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

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

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

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

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

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

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

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

427 Any city or town which creates or has created a bylaw that affects or regulates work in or
428 near wetlands, said local bylaw must have its definitions and time tables compatible with this
429 section within two years of the signing or adoption of this law, and such local bylaw shall not
430 exclude wetland mitigation banking, nor the enhancement and management goals of Chapter
431 131, Section 40 as revised. Local wetland bylaws and regulations shall not have jurisdiction
432 over the positioning of utilities or buildings in upland areas long as the building or the section of
433 utility line does not intrude into wetland areas or lies more than fifteen feet from the wetland
434 border.

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

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

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

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

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

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

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

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

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

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

489 For all new one and two family dwellings or private garages, or where the roof area is to
490 be expanded for such existing buildings, there shall a dry well volume of 50 cubic feet for every
491 400 square feet of roof surface or it must be demonstrated that soil permeability will recharge at
492 least 100% of the runoff from a 2 year 24 hour rainfall event. At least 90% of roof runoff must
493 have direct access to these dry wells. Dry wells shall not be filled with sand or broken stone, but

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

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

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

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

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

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

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

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

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

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

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

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

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

571 Examples are as follows. The blue-spotted salamander *Ambystoma laterale* is a sub-
572 arctic species with a range from Massachusetts to northern Illinois, to Manitoba to James Bay to
573 southern Labrador to
574 Nova Scotia. It is described as a relatively common species in many areas of its range. The
575 marbled salamander *Ambystoma opacum* is a warm climate species ranging from southern New
576 Hampshire, to northern Florida to east Texas to central Indiana. The species is common in much
577 of its range. Species with such wide ranges and common occurrence are not to be classed as
578 endangered, threatened, of special concern in Massachusetts under Chapter 131A unless
579 federally listed. The director of the Massachusetts Division of Fisheries and Wildlife is to
580 review the list of endangered, threatened or special concern species in Massachusetts within two
581 years of passage of this law, and to remove all species from the species list which are just at or

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

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

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

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

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

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

600 Since it is intended to encourage private citizens to enhance wetland functions and
601 values, it is intended that permitting costs be reduced for modest size projects. Thus, alteration
602 of freshwater wetlands and water bodies is exempt from this Act as long as the total area of

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