

321 CMR: DIVISION OF FISHERIES AND WILDLIFE

321 CMR 10.00: MASSACHUSETTS ENDANGERED SPECIES ACT REGULATIONS

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321 CMR 10.00 governs the implementation of the Massachusetts Endangered Species Act, M.G.L. c. 131A.

PART I: GENERAL PROVISIONS: DEFINITIONS, LISTING,  
TAKING PERMITS, RESPONSIBILITIES OF STATE AGENCIES

10.01: Introduction and Purpose

(1) Introduction. 321 CMR 10.00 is promulgated by the Massachusetts Division of Fisheries and Wildlife Division pursuant to the authority granted under M.G.L. c. 131A, The Massachusetts Endangered Species Act (MESA). 321 CMR 10.00 shall complement MESA and shall have the force of law upon their effective date.

(2) Purpose. The purpose of 321 CMR 10.00 is to define and clarify the procedures and rules necessary for the agency to carry out responsibilities under M.G.L. c. 131A, Massachusetts Endangered Species Act. 321 CMR 10.00 establishes a comprehensive approach to the protection of the Commonwealth's Endangered, Threatened, and Special Concern species and their habitats. Regulations include provisions for the protection of habitat areas (Significant Habitat) where in the Division's opinion a Project or Activity would result in the Take of any Threatened or Endangered species. Also included are environmental review provisions for habitat areas (Priority Habitat) identified as areas where there is the potential that a Take of any Endangered, Threatened, or Special Concern species may occur as a result of any Project or Activity. Separate review mechanisms are established for Projects or Activities in these areas. Priority Habitats are used for screening Projects or Activities that may result in the Take of State-listed Species and to provide guidance to project proponents regarding a Project or Activity through consultation with the Division. The Priority Habitat review procedures are designed to assist proponents with Projects or Activities that will take place in mapped Priority Habitat in order to avoid a Take of a State-listed Species. Specifically, 321 CMR 10.00 sets forth procedures for the listing of Endangered, Threatened, and Special Concern species, establishes rules and prohibitions regarding activities which Take such species or alter designated Significant Habitats, the Taking and possession of State-listed Species, and procedure for the delineation of Priority Habitat, and the review of Projects or Activities within Priority Habitat.

10.02: Definitions and Abbreviations

For the purposes of 321 CMR 10.00, the following words or phrases shall have the following meanings:

Agriculture.

- (a) Land in Agricultural Use means land presently and primarily used in producing or raising one or more of the following agricultural commodities for commercial purposes:
1. animals, including but not limited to livestock, poultry, and bees;
  2. fruits, vegetables, berries, nuts, maple sap, and other foods for human consumption;
  3. feed, seed, forage, tobacco, flowers, sod, nursery or greenhouse products, and ornamental plants or shrubs; and
  4. forest products on Land Devoted to Forest Purposes, including but not limited to biomass, sawlogs, and cordwood, but not including the agricultural commodities described in 321 CMR 10.02: Agriculture(a)1. through 3.

## 10.02: continued

Additionally, land in agricultural use means land presently and primarily used in a manner related to, and customarily and necessarily used in, producing or raising such commodities, including but not limited to: existing access roads and livestock crossings; windbreaks; hedgerows; field edges; bee yards; sand pits used as part of an agricultural activity; landings for forest products; fence lines; water management projects such as reservoirs, farm ponds, irrigation systems, field ditches, cross ditches, canals/channels, grass waterways, dikes, sub-surface drainage systems, watering facilities, water transport systems, and water storage systems; agricultural composting sites; agricultural storage and work areas; and land under farm structures.

Land in agricultural use may lie inactive for up to five consecutive years unless it is under a United States Department of Agriculture (USDA) contract for a longer term pursuant to the Conservation Reserves Program (the Food Securities Act of 1985, as amended by the Food, Agriculture, Conservation and Trade Act of 1990; and 7 CFR 1410), or it is used for the forestry purposes described in 321 CMR 10.02: Agriculture(b)14. The issuing authority may require appropriate documentation, such as a USDA Farm Plan or aerial photography, to demonstrate agricultural use.

(b) Normal Maintenance of Land in Agricultural Use means the following activities, without enlargement as to geographical extent, that are occurring on land in agricultural use, when directly related to production or raising of the agricultural commodities referenced in 321 CMR 10.02: Agriculture(a), and when conducted in accordance with federal and state laws:

1. all crop management practices customarily employed to enhance existing growing conditions, including but not limited to: tillage, trellising, pruning, mulching, shading, and irrigating; and all customary harvesting practices such as digging, picking, combining, threshing, windrowing, baling, curing, and drying;
2. the use of fertilizers, manures, compost materials, and other soil amendments; pesticides and herbicides; traps; and other such materials;
3. the repair or replacement of existing access roads and livestock crossings;
4. the maintenance of:
  - a. existing forest boundary lines up to five feet wide limited to cutting vegetation within the existing boundary lines;
  - b. windbreaks;
  - c. hedgerows; and
5. the management of existing field edges, limited to within 100 feet from the land in production, including the following practices:
  - a. mowing;
  - b. burning;
  - c. brush cutting; and
  - d. removing trees;
6. the maintenance and repair of existing fences and the management of temporary fence lines;
7. the cleaning, clearing, grading, repairing, dredging, or restoring of existing man-made or natural water management systems such as reservoirs, farm ponds, irrigation systems, field ditches, cross ditches, canals/channels, grass waterways, dikes, sub-surface drainage systems, watering facilities, water transport systems, vents, and water storage systems, all in order to provide drainage, prevent erosion, provide more effective use of water, or provide for efficient use of equipment, and all for the purpose of maintaining favorable conditions for ongoing growing or raising of agricultural commodities;
8. the maintenance and repair of ongoing agricultural composting sites, storage areas, and work areas and the storage of fertilizers, pesticides, manures, compost materials, and other soil amendments;
9. the repair and maintenance of existing farm structures;
10. the seeding of eroded or disturbed areas;
11. maintaining the flow of existing natural waterways;
12. the keeping of livestock and poultry and the management of beehives;
13. the cultivation of cranberries, including the following practices:
  - a. the activities described in 321 CMR 10.02: Agriculture(b)1. through 11;
  - b. the application of sand to existing bogs and the excavation of sand from sand pits;

10.02: continued

- c. the repair and reconstruction of water control structures including flumes, pumps, dikes, and piping above and below the ground;
  - d. the regrading, including modification of drainage, and replanting of existing cranberry bogs;
  - e. the repair and replacement of dikes;
  - f. water harvesting activities; and
  - g. flooding and flood release;
14. the cutting and removal of trees for the purpose of selling the trees or any products derived therefrom:
- a. when carried out in accordance with an approved Forest Cutting Plan under the provisions of M.G.L. c. 132, §§ 40 through 46, and 304 CMR 11.04, provided that the approved Forest Cutting Plan incorporates the Division's requested conditions to protect the State-listed Species; or
  - b. if such commercial forest management activities do not require a Forest Cutting Plan under the provisions of M.G.L. c. 132, §§ 40 through 46, and 304 CMR 11.04, then provided a management plan for such activities is approved by the Division and they occur on Land Devoted to Forest Purposes.
15. pre-commercial forest management activities that do not require an approved Forest Cutting Plan under the provisions of M.G.L. c. 132, §§ 40 through 46, and 304 CMR 11.00, limited to pruning, pre-commercial thinning, selective herbicide application, or other activity designed to maintain or improve existing timber stock for future commercial harvest, provided that said management activities are carried out on Land Devoted to Forest Purposes and in accordance with a management plan approved in writing by the Division.
- (c) Normal Improvement of Land in Agricultural Use, includes but is not limited to:
- 1. the following activities when they occur on land in agricultural use or when they are directly related to production or raising of the agricultural commodities referenced in 321 CMR 10.02: Agriculture(a), and the activity is conducted in accordance with federal and state laws:
    - a. the installation of permanent fencing, windbreaks, hedgerows, or the cutting of vegetation to create forest boundaries up to five feet wide;
    - b. the installation of dikes within a cranberry bog;
    - c. the construction of farm structures, not including habitable dwellings;
    - d. the squaring-off of fields and bogs, provided there is no increase in the amount of land in production beyond the minimum increase necessarily resulting from making the boundary of any field or bog more regular;
    - e. the construction of by-pass canals/channels and tail water recovery systems;
    - f. a change in commodity other than from maple sap production or forest products to any other commodity;
    - g. the construction of a water management system such as a farm pond, irrigation system, field ditch, cross ditch, canal/channel, grass waterway, dike, sub-surface drainage system, watering facility, water transport system, vent, or water storage system, or of a livestock access; and
    - h. the construction of composting and storage areas.
  - 2. the reconstruction of existing dikes, the reconstruction and expansion of existing ponds and reservoirs, and the construction of tailwater recovery ponds and by-pass canals/channels when directly related to production or raising of the agricultural commodities referenced in 321 CMR 10.02: Agriculture(a).

Alter means to change the physical or biological condition of a designated Significant Habitat in any way that detrimentally affects the capacity of the Significant Habitat to support a population of Endangered or Threatened species and shall include without limitation those activities listed in 321 CMR 10.63(1).

Animal means any member of the animal kingdom including, but not limited to, any mammal, bird, reptile, amphibian, fish, mollusk, crustacean, arthropod or other invertebrate or any part, product, egg or offspring or the dead body or any part thereof.

10.02: continued

Aquaculture.

(a) Land in Aquacultural Use means land presently and primarily used in the growing of aquatic organisms under controlled conditions, including one or more of the following uses: raising, breeding or producing a specified type of animal or vegetable life including, but not limited to, finfish such as carp, catfish, black bass, flatfishes, herring, salmon, shad, smelt, sturgeon, striped bass, sunfishes, trout, whitefish, eel, tilapia; shellfish such as shrimp, crabs, lobster, crayfish, oysters, clams, periwinkles, scallops, mussels, squid; amphibians such as frogs; reptiles such as turtles; seaweeds such as irish moss and dulse; and edible freshwater plants.

(b) Normal Maintenance or Improvement of land in aquacultural use means the following activities, when done in connection with the production of aquatic organisms as defined above: draining, flooding, heating, cooling, removing, filling, grading, compacting, raking, tilling, fertilizing, seeding, harvesting, filtering, rafting, culverting or applying chemicals in conformance with all state and federal laws; provided, however, that such activities are clearly intended to improve and maintain land in aquacultural use and that best available measures are utilized to ensure that there will be no adverse effect on wetlands outside the area in aquacultural use, and further provided that removing, filling, dredging or altering of a salt marsh is not to be considered normal maintenance or improvement of land in aquacultural use.

Best Scientific Evidence Available means species occurrence records, population estimates, habitat descriptions, assessments, peer reviewed scientific literature, documented consultation with experts and information contained in the records of the Natural Heritage and Endangered Species Program or other credible scientific reports or species sighting information reasonably available to the Director.

Capacity of a Designated Significant Habitat to Support a Population of Endangered or Threatened Species means those biological or physical features in an area which could be utilized by an Endangered or Threatened plant or animal or play a role in the survival of an Endangered or Threatened species. Components of the capacity of a Designated Significant Habitat to support a population of Endangered or Threatened species include, but are not limited to, space, food, shelter, nesting and foraging sites, overwintering sites, host plants, soils, vegetation, hydrologic regime, substrate, degree of exposure to sun or shade, water temperature, and water quality.

DEP means the Department of Environmental Protection.

Director means the Director of the Division of Fisheries and Wildlife within the Department of Fish and Game.

Division means the Division of Fisheries and Wildlife within the Department of Fish and Game for purposes of 321 CMR 10.00 located at Rte. 135, North Drive, Westboro, MA 01581.

EIR means a draft or final environmental impact report filed pursuant to MEPA.

Endangered Species means any species of plant or animal listed as an Endangered species pursuant to 321 CMR 10.03 and so listed at 321 CMR 10.90.

ENF means an environmental notification form filed pursuant to MEPA.

Extinction means the loss of a species from its entire global range.

Extirpation means the loss of a species from its entire range within Massachusetts.

Federal Endangered Species Act means The Endangered Species Act of 1973, 16 U.S.C. § 1531 *et seq.*, and the regulations promulgated thereunder.

Federal List means the List of Endangered and Threatened Wildlife (50 CFR 17.11) and the List of Endangered and Threatened Plants (50 CFR 17.12).

Federally Listed Species means any species on the federal list.

Fisheries & Wildlife Board means the board established pursuant to M.G.L. c. 131, § 1A.

10.02: continued

Habitat means an area which, due to its physical or biological features, protects or provides important elements for the growth and survival of plants or animals such as food, shelter, or living space, and includes without limitation, breeding, feeding, resting, migratory, or overwintering areas. Physical or biological features include, but are not limited to: structure and composition of the vegetation; faunal community; soils; water chemistry and quality; and geologic, hydrologic, and microclimatic factors.

Land Devoted to Forest Purposes means forest land used or intended to be used for management, cultivation, regeneration, or use of forest products and for which no contrary or inconsistent use is being pursued by the Landowner.

MEPA means the Massachusetts Environmental Policy Act, M.G.L. c. 30, § 61 through 62H and the MEPA regulations at 301 CMR 11.00.

Native, in reference to species, means a species which either occurs, or has occurred, within Massachusetts; provided that the original occurrence of such species is not the result of a deliberate or accidental introduction by humans into Massachusetts nor an introduction elsewhere which spread into Massachusetts.

Natural Heritage and Endangered Species Advisory Committee means the committee established pursuant to M.G.L. c. 131, § 5B.

Natural Heritage and Endangered Species Program (NHESP) means the program within the Division of Fisheries and Wildlife responsible for the inventory, research, and protection of rare plant and animal species and the maintenance of computerized and manual records of rare species locality information.

Net Benefit means an action, or set of actions, that contributes, on its own or in the context of other actions, significantly to the long-term conservation of a State-listed Species and that the conservation contribution to the impacted State-listed Species exceeds the harm caused by a proposed Project or Activity.

NPC means a notice of project change filed pursuant to MEPA.

Person means an individual, corporation, partnership, trust, association or other private entity or any officer, agent, department or instrumentality of the federal government or any state or its political subdivisions, including but not limited to any agency, department, board, commission or authority thereof.

Plant means any member of the plant kingdom including seeds, roots, or other parts.

Priority Habitat means the geographic extent of Habitat for State-listed Species as delineated by the Division pursuant to 321 CMR 10.12. Priority Habitats are delineated based on records of State-listed Species observed within the 25 years prior to delineation and contained in the Division's NHESP database.

Project or Activity means any action, including, but not limited to:

- (a) grading, excavating, filling, demolition, draining, dumping, dredging, or discharging;
  - (b) the erection, reconstruction, or expansion of any buildings or structures;
  - (c) the construction, reconstruction, improvement or expansion of roads and other ways;
  - (d) the installation of drainage, sewage and water systems;
  - (e) beach nourishment or dune building;
  - (f) the construction or reconstruction of seawalls, groins, dikes, jetties or retaining walls;
- or
- (g) the destruction of plant life.

Record Owner means any person or entity holding a legal or equitable interest, right or title to real property, as reflected in a written instrument or recorded deed, or any person authorized in writing by any such person.

10.02: continued

Secretary means the Secretary of the Executive Office of Energy and Environmental Affairs (EOEEA).

Significant Habitat means any specific area of Massachusetts designated pursuant to 321 CMR 10.30 through 10.40.

Species means any distinct plant or animal population whose members interbreed or cross pollinate when mature or are self-perpetuating through the production of viable seed or offspring and can include any subspecies or variety of plant or animal.

Species of Special Concern and Special Concern Species mean any species of plant or animal listed as a Species of Special Concern pursuant to 321 CMR 10.03 and so listed at 321 CMR 10.90.

State Agencies means all agencies, departments, boards, commissions, and authorities of the Commonwealth, including any authority of any political subdivision which is specifically created as an authority under special or general law.

State-list means the Massachusetts list of Endangered, Threatened, and Special Concern species found at 321 CMR 10.90.

State-listed Species means any species on the state list.

Take, in reference to animals, means to harass, harm, pursue, hunt, shoot, hound, kill, trap, capture, collect, process, disrupt the nesting, breeding, feeding or migratory activity or attempt to engage in any such conduct, or to assist such conduct, and in reference to plants, means to collect, pick, kill, transplant, cut or process or attempt to engage or to assist in any such conduct. Disruption of nesting, breeding, feeding or migratory activity may result from, but is not limited to, the modification, degradation or destruction of Habitat.

Threatened Species means any species of plant or animal listed as a Threatened species pursuant to 321 CMR 10.03 and so listed at 321 CMR 10.90.

Viability of a Significant Habitat to Support a Population of Endangered or Threatened Species means the ability of a Significant Habitat to sustain one or more populations of Endangered or Threatened species in the short and long term and may be expressed as the likelihood that the local population(s) of a given size will persist in a Significant Habitat.

Abbreviations: The following abbreviations for agency names, programs, and other terms are used in 321 CMR 10.00.

DEP	Department of Environmental Protection
EIR	Environmental Impact Report, as defined under 301 CMR 11.07
ENF	Environmental Notification Form, as defined under 301 CMR 11.28
EOEA	Executive Office of Environmental Affairs
MEPA	Massachusetts Environmental Policy Act, M.G.L. c. 30, §§ 61 through 62H and its implementing regulations, 301 CMR 11.00.
MESA	Massachusetts Endangered Species Act, M.G.L. c. 131A
NHESP	Natural Heritage and Endangered Species Program
RTA	Request to Alter Significant Habitat Form
VMP	Vegetation Management Plan, as defined under 333 CMR 11.00
YOP	Yearly Operating Plan, as defined under 333 CMR 11.00

10.03: Listing of Species

(1) Introduction. The list of Endangered, Threatened, and Special Concern species in effect prior to the effective date of 321 CMR 10.00, as amended by the Fisheries and Wildlife Board on December 30, 1991, is established within 321 CMR 10.90 as the first edition of the list. 321 CMR 10.03 establishes the procedures for amending and updating all subsequent editions of the list.

10.03: continued

- (2) Species Investigations. The NHESP shall conduct investigations, including but not limited to field surveys and reviews of museum collections, herbaria and published reports, in order to determine whether any species of plant or animal should be considered for listing.
- (3) Eligible Species. Any species native to Massachusetts is eligible for listing.
- (4) Federally Listed Species. Any species which regularly occurs within Massachusetts and which is listed as endangered or threatened under the provisions of the Federal Endangered Species Act shall be listed in an equivalent category on the state list found at 321 CMR 10.90; provided, however, that the listing of any species on the federal list as a Threatened species shall not limit the discretion of the Director to list said species as Endangered.
- (5) Criteria for Listing Species. The criteria for determining Endangered, Threatened, or Special Concern status shall be based on biological data, including, but not limited to:
- (a) taxonomic status;
  - (b) reproductive and population status and trends;
  - (c) whether the species is native or has been introduced;
  - (d) vulnerability, as determined by threats to the species or its habitat;
  - (e) specialization, as determined by unique habitat requirements;
  - (f) restricted distribution, as determined by limited or disjunct geographic range; and
  - (g) rarity, as determined by a limited number of occurrences or by occurrence in limited numbers.
- (6) List Categories.
- (a) Endangered. The Director shall list as Endangered any species of plant or animal in danger of extinction throughout all or a significant portion of its range and species of plants or animals in danger of extirpation as documented by biological research and inventory.
  - (b) Threatened. The Director shall list as Threatened any species of plant or animal likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range and any species declining or rare as determined by biological research and inventory and likely to become endangered in the foreseeable future.
  - (c) Species of Special Concern. The Director shall list as a species of Special Concern any species of plant or animal which has been documented by biological research and inventory to have suffered a decline that could threaten the species if allowed to continue unchecked or that occurs in such small numbers or with such a restricted distribution or specialized habitat requirements that it could easily become threatened within Massachusetts.
- (7) Proposals for Listing or Delisting Species. Any person may propose the addition or deletion of species to or from the list, or for changes in classification of listed species. The burden of proof for delisting species shall be on the person requesting such change in status. Proposals must be submitted in writing to the Director and must contain the following information:
- (a) the date submitted; the proponent's name, signature, address, and telephone number; and the association, institution, or business, if any, represented by the proponent.
  - (b) the common and scientific name of the species;
  - (c) the listing category being proposed;
  - (d) a detailed justification of the proposed listing or delisting action, including the past and present population status and distribution in Massachusetts, and any known or suspected threats;
  - (e) information on the known status of the species throughout its range;
  - (f) supporting documentation (for example, literature citations, copies of written reports, letters from scientific authorities, maps, or species records, if appropriate); and
  - (g) other information requested by the Director.

## 10.03: continued

(8) Review of Proposals. Within 21 days of receipt of a proposal and after consultation with the Natural Heritage and Endangered Species Program, the Director shall determine whether sufficient evidence has been submitted to warrant a review of the species' status. Upon a determination that sufficient evidence has been submitted, the Director shall refer the proposal to the Natural Heritage and Endangered Species Advisory Committee for its review. The committee, in conducting its review, may seek the advice of additional persons and shall advise the Director concerning appropriate action. The Director may then recommend any changes to the Fisheries and Wildlife Board. Upon a determination that insufficient evidence has been submitted to warrant further review, the Director shall so notify the person proposing the changes in the list and send a copy to the Natural Heritage and Endangered Species Advisory Committee.

(9) Public Hearing. The establishment of the Massachusetts list of Endangered, Threatened, and Special Concern species, and any proposed changes thereto, shall be by regulation after a public hearing subject to the provisions of M.G.L. c. 30A. Not less than 21 days prior to the public hearing, the Director shall make available a summary of the biological data upon which the listing proposal is based. The Director shall submit to the Secretary of EOE in time for publication in the Environmental Monitor at least 21 days prior to the public hearing a notice of such hearing and the availability of such summary of biological data.

(10) List Review Frequency. The Director shall review the list of Endangered, Threatened, and Special Concern species, in consultation with the Natural Heritage and Endangered Species Advisory Committee, at least once every five years for the purpose of listing or delisting species.

(11) The List. The official Massachusetts list of Endangered, Threatened, and Special Concern species is found at 321 CMR 10.90.

10.04: Taking and Possession of Species on State and Federal Lists

(1) Prohibitions. Except as otherwise provided in 321 CMR 10.04(2) and (3), no person may take, possess, transport, export, process, sell or offer for sale, buy or offer to buy, nor shall a common or contract carrier knowingly transport or receive for shipment, any plant or animal or part thereof on the state list or federal list; provided, however, that ownership, sale, or purchase of real property on which such plant or animal occurs is not prohibited.

(2) Exemptions.

(a) In Transit. Any person may transport, possess or sell, in accordance with the terms of any necessary state and federal permit, any plant or animal or part thereof on the state list or federal list, which enters Massachusetts from another state or from a point outside the territorial limits of the United States; provided that such plants or animals or parts thereof are lawfully possessed outside of Massachusetts; and provided further that such plants or animals are possessed not more than 24 hours in Massachusetts and are transported through Massachusetts while in transit to another destination outside of Massachusetts. For the purposes of 321 CMR 10.04(2)(a), necessary state and federal permits shall include, but not be limited to, those required under M.G.L. c. 131 and the regulations promulgated thereunder and any other state or federal permit required for the possession or sale of species on the state list or federal list.

(b) Plant Propagation and Nursery Sales. A person may take, possess, propagate, buy, or sell all plants or parts thereof on the state list or federal list in cultivation, provided that such plants or parts thereof are lawfully held under other state or federal laws and shall not have been taken from the wild in Massachusetts after March 27, 1991 or after the time of subsequent listing of said species pursuant to 321 CMR 10.03.

(c) Animal Possession Prior to Effective Date. Any person may possess any animal, or part thereof, on the state list or federal list, that was lawfully possessed on March 27, 1991 or at the time of subsequent listing of said species pursuant to 321 CMR 10.03, provided however, that no such animal or part thereof may be sold or traded for value.

(d) Federally Authorized Uses of Species on the Federal List.

1. Any person may, in accordance with all applicable federal laws, possess, sell, buy, or trade any finished products, including but not limited to carvings, clothing, jewelry, and similar goods, made from species on the federal list.

10.03: continued

2. Any person may, in accordance with all applicable federal laws, possess parts of plants or animals on the federal list for ceremonial and religious purposes.
- (3) Permits for Taking and Possession of Species. Any violation of a permit is a violation of M.G.L. c. 131A, § 2.
- (a) Scientific and Educational Use Permits. The Director may in accordance with provisions of M.G.L. c. 131, § 4 and c. 131A, § 3 permit the taking, possession, purchase, sale, transportation, exportation or shipment of any species on the state list for scientific or educational purposes, including but not limited to scientific collecting, educational use, wildlife rehabilitation, salvage, or bird-banding.
  - (b) Conservation and Management Permit. The Director may in accordance with provisions of M.G.L. c. 131A, § 3 permit the taking of a species on the state list for conservation or management purposes pursuant to the criteria and process set forth in 321 CMR 10.23.
  - (c) Captive Propagation of State Listed Species.
    1. Animals. The Director may permit, in accordance with provisions of M.G.L. c. 131, § 23, and 321 CMR 2.12, the artificial propagation and maintenance of animals on the state list. Such permits may be issued only after the Director approves a written propagation program prepared by the applicant.
    2. Plants. The Director may permit the artificial propagation and maintenance of plants on the state list. Such permits may be issued only after the Director approves a written propagation program prepared by the applicant.
  - (d) Falconry. The Director may permit the possession, barter or sale of species of raptors listed on the state list or federal list which have come from captive propagation in compliance with 321 CMR 3.04 and 50 CFR 21, for the purposes of falconry. The Director may permit the taking of Special Concern species for falconry so long as such taking is in accordance with 321 CMR 3.04 and any additional conditions established by the Director designed to insure that such taking does not jeopardize the security of breeding populations of the species within Massachusetts or outside the state.
  - (e) Public Health. Except as prohibited by federal law, the Director may permit the removal, capture, or destruction of any state listed species to protect human health during the period and within the geographic area of a public health hazard as certified in writing by the Commissioner of Public Health; provided that the Director has found that all reasonable efforts have been undertaken to avoid the removal, capture or destruction of such species.
- (4) Requests for Permits and Information. Requests for information regarding a Conservation and Management permit should be sent to: Environmental Review, Natural Heritage and Endangered Species Program, Division of Fisheries and Wildlife, Rte. 135, Westborough, MA 01581.

10.05: Responsibilities of State Agencies

- (1) All state agencies shall utilize their authorities in furtherance of the purposes of MESA and 321 CMR 10.00: review, evaluate and determine the impact on Endangered, Threatened and Special Concern species or their habitats of all works, projects or activities conducted by them; and use all practicable means and measures to avoid or minimize damage to such species or their habitats. For the purposes of 321 CMR 10.05, "state actions" means any work, project, or activity either directly undertaken by a state agency, or if undertaken by a person, which seeks the provision of financial assistance by an agency or requires the issuance of permits by an agency (but not including a grant of aid for medical services or personal support, such as welfare or unemployment funds) to a person or a third party on behalf of a person, and "activities" means any acts carried out by a state agency which could affect any state listed species or their habitats.
- (2) The following types of state actions shall be considered in compliance with MESA and 321 CMR 10.05(1):
  - (a) State actions that have received any permits required pursuant to MESA and 321 CMR 10.00.

## 10.05: continued

(b) State actions that are part of a project which has been reviewed under MEPA and the Secretary of EOEA has issued either a certificate on an ENF stating that project does not require the preparation of an EIR or a certificate on a Final EIR stating that the EIR fully and adequately complies with MEPA, provided, however, that said project has been reviewed under MEPA regulations (301 CMR 11.00) that have incorporated review thresholds for permits issued under 321 CMR 10.00 and that no taking will occur or that a Conservation and Management Permit has been issued.

(c) State actions occurring on state-owned land that are in conformance with a management plan which was developed in accordance with the following inventory and planning procedures and management policies:

1. Inventory Procedures. State agencies shall request and the NHESP shall provide information on the location, biology, and habitat requirements of state listed species documented by the NHESP as occurring on said agency's lands. NHESP shall also provide to state agencies such information and recommendations as are necessary to allow said agencies to use all practicable means and measures to avoid or minimize damage to state listed species or their habitats.

2. Planning Procedures. State agencies shall submit to NHESP any draft management plans they prepare for state-owned lands on which state listed species are known to occur. NHESP shall review such draft plans and provide comments and recommendations to the state agency concerning the protection, conservation, and restoration of the listed species on the land subject to the plan. Such review and recommendations shall be repeated at least once every five years or every time the land management plan is updated, whichever is sooner.

3. Management Policies. Unless specifically required otherwise by statute, localities on state-owned lands that provide habitat for state listed species shall be managed for the benefit of such listed species. Said agencies shall give management priority to the protection, conservation, and restoration of Endangered, Threatened, and Special Concern species occurring on state-owned lands. All practicable means and measures shall be taken to resolve conflicts between the protection, conservation, and restoration of state listed species on state-owned lands and other uses of such lands in favor of the listed species.

(d) All other state actions that do not require a permit under MESA, are not subject to review under MEPA, and do not involve actions on state-owned lands shall be presumed to be in compliance with 321 CMR 10.05(1), unless the Secretary of EOEEA initiates the following review. The Secretary of EOEEA may initiate a review of a state action when he/she determines that such a state action may damage state listed species or their habitats. Such state actions for which the Secretary has initiated such review and which fulfill the consultation and review procedures described below shall be considered in compliance with 321 CMR 10.05(1):

1. Upon notification by the Secretary of EOEEA that a state action may damage state listed species or their habitats the affected agency shall initiate consultation with NHESP. Said agency shall submit to NHESP such information that is necessary for the NHESP to determine the location and nature of the proposed state action.

2. NHESP shall review the information submitted by the agency and determine if the state action is likely to result in damage to any state listed species or their habitats. If the NHESP determines that the state action is likely to damage state listed species or their habitats the NHESP shall provide to the agency such guidance and information that is necessary to allow the agency to avoid such damage. If NHESP determines that the state action is not likely to result in damage to state listed species or their habitats the NHESP shall provide a written opinion to the agency that such state action is in compliance with MESA and 321 CMR 10.05(1). An agency that receives guidance and information from NHESP regarding the avoidance of damage to state listed species and their habitats shall take all practicable means and measures to modify their actions to avoid such damage.

3. Said agency shall submit to the Secretary of EOEEA and NHESP evidence that all practicable means and measures have been taken to avoid damage to state listed species and their habitats. The Secretary shall certify that the state action is in compliance with 321 CMR 10.05(1) if she finds that the agency has taken all practicable means and measures to avoid damage to state listed species and their habitats pursuant to the recommendations of NHESP.

10.06: Penalties

## 321 CMR: DIVISION OF FISHERIES AND WILDLIFE

(1) Unauthorized Taking, Possession, and Sale of Species on the State or Federal Lists. Any person who violates the provisions of the first paragraph of M.G.L. c. 131A, § 2 or 321 CMR 10.04 or 10.11 through 10.24 shall be punished by a fine of not less than \$500 or imprisonment for not more than 90 days or both such fine and imprisonment. Upon a second or subsequent conviction such person shall be punished by a fine of not less than \$5,000 nor more than \$10,000 or by imprisonment for not more than 180 days or both such fine and imprisonment.

(2) Unauthorized Alteration of Significant Habitat. Any person who violates the provisions of the second paragraph of M.G.L. c. 131A, § 2 or 321 CMR 10.61(1) shall be punished by a fine of not less than \$1,000 nor more than \$10,000 or by imprisonment for not more than 90 days or both such fine and imprisonment. Upon a subsequent conviction, such person shall be punished by a fine not less than \$10,000 nor more than \$20,000 or by imprisonment for not more than 180 days or both such fine and imprisonment. In addition or as an alternative to such penalties, any such person may be ordered to restore the Significant Habitat to its prior condition.

(3) Civil Penalties. Any person who violates M.G.L. c. 131A, § 2 or any rule or regulation adopted thereunder shall be subject to a civil assessment not to exceed \$10,000 for each such violation.

(4) Multiple Violations. The commission of an act prohibited by M.G.L. c 131A or any rule or regulation adopted thereunder with respect to each individual animal or plant, or part thereof, shall constitute a separate offense.

### 10.07: Addresses

For the Director and Division: MA Division of Fisheries & Wildlife, 251 Causeway Street, Suite 400, Boston, MA 02114.

For the Natural Heritage & Endangered Species Program: Natural Heritage & Endangered Species Program, MA Div. of Fisheries & Wildlife, Route, 135, Westborough, MA 01581.

## PART II: DELINEATION OF PRIORITY HABITAT AND REVIEW OF PROJECTS OR ACTIVITIES WITHIN PRIORITY HABITAT

### 10.11: Introduction

Part II of 321 CMR 10.00 establishes the criteria for the delineation of Priority Habitat, establishes standards and procedures for determining which Projects or Activities are located, or will take place, in Priority Habitat, review procedures and performance standards for determination of whether a Project or Activity will result in a Take, and requirements necessary to obtain a Conservation and Management Permit from the Director, and appeal procedures. Exempt Projects and Activities are defined in 321 CMR 10.14. Persons or entities undertaking Projects or Activities within Priority Habitat that are not exempt from review shall submit those Projects or Activities to the review process set forth in 321 CMR 10.18 or, where applicable, shall request Division review in coordination with MEPA review.

### 10.12: Delineation of Priority Habitat of State-listed Species

(1) Priority Habitats are used for screening Projects and Activities that may result in the Take of State-listed Species and to provide guidance to Record Owners regarding a Project or Activity through consultation with the Division. Priority Habitats shall be delineated based on the Best Scientific Evidence Available.

(2) The delineation of Priority Habitat by the Division for all State-listed Species shall be based on the Best Scientific Evidence Available and shall include examination of individual occurrence records in the context of species listing status, and shall apply the following criteria: the nature and/or significance of the occurrence as it relates to the conservation and protection of the species, including but not limited to, evidence of breeding, persistence, life stages present, number of individuals, extent of necessary supporting habitat, and proximity to other occurrences.

## 10.12: continued

(3) For each species, habitat mapping guidelines will be prepared that identify the important habitat features, and that describe the methodology by which Priority Habitats are delineated.

(4) Where the delineation will extend to areas previously disturbed by Projects or Activities, the delineation shall to the maximum extent feasible and consistent with the Best Scientific Evidence Available and to the extent those areas no longer provide important habitat features for State-listed Species, exclude any such disturbed areas from the delineated Priority Habitat. The Division also reserves the right not to delineate an area as Priority Habitat with occurrence records of State-listed Species of Special Concern or, in exceptional circumstances, State-listed Endangered or Threatened Species, based on factors such as the listing status of the species, the known population status of the species or the quality of habitat, or the existence of a Conservation Plan for a State-listed Species of Special Concern issued by the Division pursuant to 321 CMR 10.26.

(5) In the delineation of Priority Habitat and the selection of occurrence records to be included in Priority Habitat mapping, the Division shall take into consideration the listing status of individual species and use a methodology that draws clear distinctions between State-listed Species based on the relative threat of extinction or extirpation for each of those classifications. The Division will develop guidelines and criteria for the acceptance and inclusion of occurrence records into the NHESP data base.

(6) Division Updates to the Priority Habitat Map.

(a) The delineation of Priority Habitat will be re-evaluated every four years by the Division. The current Priority Habitat map issued by the Division in October, 2008 shall remain in effect through calendar year 2011, or until such time as a new Priority Habitat map is issued by the Division. The Successor Priority Habitat maps will be on a four calendar year cycle. Revisions or updates to the Priority Habitat map are generally the result of the Division's consideration of factors such as:

1. the Division's re-evaluation of the existing basis for a delineation, including whether there have been relevant changes to the Best Scientific Evidence Available;
2. any revised delineation made by the Division in the preceding four years in response to a request for reconsideration pursuant to 321 CMR 10.12(8) or as the result of a final adjudicatory or final judicial appeal;
3. the existence of any new occurrence records contained in the NHESP data base or any occurrence records observed more than 25 years prior to delineation, which, because of their age, are no longer used to delineate Priority Habitats, but are retained in the NHESP data base for historical purposes;
4. the extent to which an existing or potential delineation includes areas previously disturbed by Projects or Activities; or
5. a change made by the Division to the listing status of a species; and
6. upon the issuance of any Conservation Plan for a State-listed Species of Special Concern by the Division pursuant to 321 CMR 10.26, the subsequent updated Priority Habitat maps, beginning with the *Natural Heritage Atlas*, 15<sup>th</sup> Edition, will not include the delineation of new Priority Habitat outside of the conservation protection zones established in the Conservation Plan for that species.

(b) Upon completion of its re-evaluation of the Priority Habitat map, the Division will provide a 60 day public comment period on all proposed revisions or updates to the map. Specifically, the Division will request public comment on the status of areas proposed for delineation or removal as Priority Habitat regarding the physical or biological features of the habitat, or the current scope of existing development in the area. The Division will post its proposed updated version of the Priority Habitat map, together with a summary explanation of the significant changes to the map, on the Division's website. The Division will also publish notice of the availability of the proposed updated Priority Habitat map and the public comment period on the Division's website, in the *Environmental Monitor*, in a newspaper with state-wide circulation, and in other newspapers with regional or local circulation, as deemed appropriate by the Division, and provide such notice to planning boards, building inspectors and conservation commissions in municipalities where existing or new Priority Habitats have been or are proposed to be delineated or modified.

## 10.12: continued

(c) Within 30 days after the close of the public comment period, the Division will determine whether any modifications to its proposed updated Priority Habitat map are appropriate, evaluating the relevance and substance of a public comment against the Division's criteria for delineating Priority Habitat in 321 CMR 10.12(2). The Division reserves the right to take more time to complete its review of the public comments and for determining whether any modifications to its proposed updated Priority Habitat map are appropriate.

(7) Division's Publication of the Final Updated Priority Habitat Map.

(a) The Division will post the final updated Priority Habitat map, together with a summary response to public comments and a summary explanation of any significant modifications to the proposed updated map, on the Division's website within 30 days of its determination of whether any modifications to its proposed updated Priority Habitat map are appropriate. The Division will also make available the final updated Priority Habitat map to the public electronically as a GIS data layer.

(b) The Division will provide the final town-based Priority Habitat map to planning boards, building inspectors and conservation commissions in municipalities where Priority Habitats have been delineated.

(8) Any Record Owner of real property in Priority Habitat may request reconsideration by the Division of the delineation affecting that Record Owner's property. Such request shall be made in writing by certified mail to the Division. Within 30 days of the Division's receipt of a request for reconsideration, the Division shall make available to the Record Owner, consistent with the provisions of M.G.L. c. 66 § 17D, information from the Division's files relating to the delineation and species listing affecting that property. In providing such records, the Division shall require the Record Owner to execute a confidentiality agreement pursuant to M.G.L. c. 66 § 17D and shall redact the names and personal information of persons submitting State-listed Species occurrence information affecting a property. Following the receipt of information used as the basis of the delineation the Record Owner shall notify the Division in writing if they wish to proceed with the reconsideration. If the Record Owner determines to proceed with the reconsideration they shall provide the following information:

- (a) Name;
- (b) Address;
- (c) Ownership interest in the property;
- (d) Acreage of the property;
- (e) A copy of a USGS topographic map in scale 1:24,000 or 1:25,000 with the property location clearly marked and centered on the page, and;
- (f) A clear statement explaining the reasons for the reconsideration request with specific reference to scientific studies, records, surveys or other information relevant to the request.

Within 45 days of its receipt of such information and the payment of a fee, the amount of which shall be determined by the commissioner of administration under the provisions of M.G.L. c.7, § 3B, the Division shall, applying the criteria in 321 CMR 10.12(2), issue a written decision either confirming the original delineation or modifying that delineation as the Division determines is warranted by the additional information submitted to the Division. The decision shall state the grounds for the Division's determination, and shall be mailed by certified mail to the Record Owner. This decision shall be considered the final agency action for the purposes of M.G.L. c. 30A. No Record Owner may appeal the delineation in the Priority Habitat Map pursuant to c. 30A without first requesting reconsideration as provided above. However, the failure to request reconsideration shall not preclude a Record Owner from challenging the Priority Habitat delineation in connection with the review of a Project or Activity pursuant to 321 CMR 10.18 or in any subsequent appeal relating to that review.

10.13: Sites or Projects not in Priority Habitat

(1) Sites or Projects and Activities that are not Located or Will not Take Place in Priority Habitats. Projects and Activities that are not located or will not take place in Priority Habitats shall not be subject to the review provision of 321 CMR 10.18, except in the circumstances described in 321 CMR 10.13(1)(a) and (b):

## 10.13: continued

(a) New Occurrence Information is Received by the Division.

1. If the Division receives new information on a State-listed Endangered or Threatened Species occurrence relating to a site that is not located in Priority Habitat, the Division may determine, within 30 days of its receipt of such occurrence information, whether the new State-listed Species occurrence meets the criteria for delineation of a Priority Habitat under 321 CMR 10.12, and whether any proposed Project or Activity at the site shall be reviewed under 321 CMR 10.18, provided, however, that the Division's determination is issued to the Record Owner of the site:

- a. prior to the issuance of a final Order of Conditions by a conservation commission or DEP for a Project or Activity on the site; or
- b. if the Project or Activity is not subject to the jurisdiction of the conservation commission, then prior to the issuance of any permit that has been subject to public hearing that was publicly noticed; or
- c. if not subject to such a public hearing then prior to the issuance of a building permit;

2. Only that portion of the Project or Activity that meets the exemption criteria in 321 CMR 10.13(1)(a)1. is not required to be reviewed under 321 CMR 10.18. Subject to the limitation in 321 CMR 10.13(1)(a)1., the Division shall notify the Record Owner upon its receipt of the new occurrence information, and shall provide the written determination described in 321 CMR 10.13(1)(a)1. to the Record Owner(s) of all the affected properties within 45 days of the receipt of such new occurrence information. Any Division determination made pursuant to 321 CMR 10.13(1)(a)1. shall remain valid for a period of five years after the date of its issuance.

(b) The Division's MEPA Comments Request an Assessment of Whether a State-listed Species is Present.

1. When a Project or Activity that is not located in Priority Habitat is subject to MEPA review pursuant to M.G.L. c. 30, § 61 through 62I, the Division may, consistent with MEPA regulations at 301 CMR 11.00, review and comment on any ENF, draft supplemental or final EIR or NPC submitted to the MEPA Office. If the Division has credible information indicating the occurrence of a State-listed Endangered or Threatened Species or its habitat within the area to be disturbed by the Project or Activity, the Division may request in its comments to the MEPA Office that the project proponent be required to assess the area to be disturbed by the Project or Activity to determine if such State-listed Species are present. Otherwise, the Priority Habitat Map in effect as of the time of the Division's review of the ENF, the draft, supplemental or final EIR or the NPC shall be deemed final for the purpose of the Division's review, except where the project site is subsequently mapped as Priority Habitat prior to the issuance of a MEPA certificate for the final stage of MEPA review by the Secretary of EOEEA, in which case the provisions of 321 CMR 10.13(2)(a) shall apply.

2. Following the issuance of a certificate by the Secretary of Environmental Affairs for the final stage of review for a Project or Activity any determinations made in or pursuant to that certificate with respect to the delineation of Priority Habitat or avoiding, minimizing and mitigating the Take of State-listed Species, provided there is no material change requiring the filing of a Notice of Project Change for the Project or Activity, shall remain valid for the purposes of 321 CMR 10.00 for a period of five years.

(2) Projects or Activities that Were not in Priority Habitat when they Were Proposed but the Project Site is Thereafter Delineated by the Division as Priority Habitat. Projects or Activities that were not in Priority Habitat when they were proposed but the project site is thereafter delineated by the Division as Priority Habitat shall not be subject to the review by the Division pursuant to 321 CMR 10.18, provided the following project milestones have been met prior to the project site being mapped as Priority Habitat or within the specified timeframes, as set forth in 321 CMR 10.13(2)(a) through (d):

(a) MEPA Review.

1. The project proponent has filed an ENF and no issue involving MESA was raised in any comment letter submitted during the MEPA comment period by the Division, or, if a MESA issue was raised, it has been resolved to the satisfaction of the Division; and the Secretary determined that an EIR was not required; or

## 10.13: continued

2. The Secretary has determined that the Draft EIR was adequate and no MESA issues were raised by the Division during the MEPA comment period, or, if a MESA issue was raised, it has been resolved to the satisfaction of the Division; or
  3. The Secretary has issued a certificate on a Final EIR determining that the project or activity adequately and properly complies with MEPA.
  4. Notwithstanding 321 CMR 10.13(2)(a)1. through 3., Projects or Activities for which an NPC that the Division determines would impact a state-listed species or its habitat is thereafter filed with MEPA are not exempt from MESA review and shall be subject to review by the Division pursuant to 321 CMR 10.18. The scope of the MESA review hereunder shall be limited to those aspects of the Project or Activity that would be materially modified by the NPC, as determined by the Division.
- (b) Permitting Under the Wetlands Protection Act. If 321 CMR 10.13(2)(a) does not apply, and:
1. The issuing authority has issued an Order of Conditions, a Superseding Order of Conditions or an Order of Resource Area Delineation (ORAD) for the Project or Activity, provided that, in the case of an ORAD, the project proponent obtains an Order of Conditions, if needed, or one of the permits or approvals in 321 CMR 10.13(2)(c) by the expiration date of the initial three year term of the Final ORAD; or
  2. The project proponent has obtained either an Order of Conditions or a Superseding Order of Conditions for the Project or Activity within six months after the publication of the subsequent Priority Habitat map delineating the project site as Priority Habitat,
- (c) Other Permitting Actions.
1. If the Project or Activity is not subject to the Wetlands Protection Act, and 321 CMR 10.13(2)(a) does not apply, then upon the issuance of any permit or final approval for the Project or Activity, provided such permit or approval has been subject to public hearing that was publicly noticed; or
  2. if the Project or Activity is not subject to the Wetlands Protection Act, and 321 CMR 10.13(2)(a) does not apply, and the Project or Activity does not require the issuance of a permit or approval for which a public hearing is required pursuant to 321 CMR 10.13(2)(c), then if a building permit for the Project or Activity has been issued.
- (d) Notwithstanding 321 CMR 10.13 (2)(a) through (c):
1. only that portion of the Project or Activity that meets an exemption category in 321 CMR 10.13 (2)(a) through (c) is not required to be reviewed under 321 CMR 10.18;
  2. the Division reserves the right to determine, based on special circumstances, that any Project or Activity meeting an exemption category in 321 CMR 10.13(2)(a) through (d) shall be subject to review under 321 CMR 10.18 to prevent a substantial and permanent modification, degradation or destruction of Priority Habitat for an Endangered or Threatened State-listed Species, as determined by the Division; and
  3. no Project or Activity that has already obtained a Take determination or been issued a Conservation and Management Permit by the Division is covered by the provisions of 321 CMR 10.13(2).
  4. the Division may issue further guidance regarding its interpretation and implementation of 321 CMR 10.13.
- (3) Voluntary Assessment of Whether State-listed Species are Present. A Record Owner may at any time undertake a voluntary assessment following protocols pre-approved in writing by the Division for which a review fee shall be charged, the amount of which shall be determined by the commissioner of administration under the provisions of M.G.L. c. 7, § 3B, to determine if Threatened and Species of Special Concern are present on a property (or portion thereof). Upon approval of that assessment by the Division, that assessment shall remain valid for the purposes of 321 CMR 10.00 Part II for a period of three years from the date of its approval in writing by the Division. The approval by the Division of a Record Owner's assessment documenting the absence of Threatened and Special Concern Species shall provide the Record Owner with a guarantee that no new occurrence records will be considered in relation to a MESA or MEPA (321 CMR 13.2) review of the property for a period of five years. This guarantee does not include any species that is subsequently listed.

10.14: Exemptions from Review for Projects or Activities in Priority Habitat

The following Projects and Activities shall be exempt from the requirements of 321 CMR 10.18 through 10.23:

(1) Agriculture and Aquaculture.

(a) Normal Maintenance and Improvement of Land in Agricultural or Aquacultural Use. All activities described under the definitions of Normal Maintenance and Improvement of Land in Agricultural Use or Normal Improvement of Land in Agricultural Use Aquacultural Use are exempt. This exemption shall continue only so long as such land remains in agricultural or aquacultural use. Land in agricultural use does not include those portions of a site that are not in such use and are not designated fallow land. The normal maintenance and improvement of land in agricultural or aquacultural use does not include site preparation for purposes of conversion to another, non-agricultural or non-aquacultural use;

(b) Activities on Land Adjacent to or in the Immediate Vicinity of Land in Agricultural Use or Land in Aquacultural Use. The following activities on land adjacent to or in the immediate vicinity of Land in Agricultural Use or Land in Aquacultural Use are exempt, provided such activities are carried out in accordance with a habitat management plan approved in writing by the Division:

1. the construction, expansion, or reconstruction of a water management system such as a reservoir, farm pond, ditch, dike, tailwater recovery systems or canal/channel;
2. the construction or expansion of storage, staging, work and composting areas;
3. farm structures, not including habitable dwellings, provided that the cumulative footprint of such farm structures does not exceed 4,000 square feet;
4. the installation of permanent windbreaks or hedgerows, or the cutting of vegetation to create forest boundaries up to five feet wide;
5. the squaring-off of fields and bogs, provided there is no increase in the amount of land in production beyond the minimum increase necessarily resulting from making the boundary of any field or bog more regular; and
6. the excavation of sand from sandpits (vertically and horizontally) for use in associated, on-site, agricultural and aquacultural operations, provided that such excavation activities are reasonable in scope and used exclusively for the related on-site crop production.

(c) The exemption under 321 CMR 10.14(1)(b) does not include site preparation for purposes of conversion to land in production or to other non-agricultural or non-aquacultural uses, or the sale or off-site use of any commodity that is associated with the exempt on-site agricultural and aquacultural activities.

(2) non-commercial forest management activities that do not require an approved Forest Cutting Plan under the provisions of M.G.L. c. 132, §§ 40 through 46, and 304 CMR 11.00, including but not limited to pruning, cutting of fuelwood for personal use, planting of tree seedlings, or selective cutting of trees for aesthetic purposes, provided that said management activities are carried out on Land Devoted to Forest Purposes and in accordance with a management plan approved in writing by the Division;

(3) the maintenance, repair, removal, or replacement, or additions that do not exceed 50% of the footprint of existing commercial and industrial buildings, multifamily and mixed use structures within existing paved areas and lawfully developed and maintained lawns or landscaped areas;

(4) the maintenance, repair, or replacement, or additions, including the construction of a driveway for an existing single family or two family home within existing paved and lawfully developed and maintained lawns or landscaped areas, provided there is no expansion of such existing paved, lawn and landscaped areas;

(5) construction or removal of structures that are secondary to the primary residence and located within existing paved areas and lawfully developed and maintained lawns or landscaped areas on residential properties, provided there is no expansion of such existing paved, lawn and landscaped areas;

10.14: continued

(6) construction, repair, replacement or maintenance of septic systems, private sewage treatment facilities, utility lines, sewer lines, or residential water supply wells within existing paved areas and lawfully developed and maintained lawns or landscaped areas, provided there is no expansion of such existing paved, lawn and landscaped areas;

(7) repair, replacement or maintenance of existing, properly maintained stormwater detention basins or other stormwater management systems;

(8) construction of new stormwater management systems that are designed to improve stormwater management at previously developed sites, provided that the plans for the system are submitted to the Division for prior review, and the Division makes a written determination that such systems will not have an adverse impact on state-listed species or their habitats;

(9) repair, replacement or maintenance of existing, properly maintained dry hydrant pipe systems;

(10) installation, repair, replacement, and maintenance of utility lines (gas, water, sewer, phone, electrical) for which all associated work is within ten feet from the edge of existing paved roads, and the repair and maintenance of overhead utility lines (phone, electrical) for which all associated work is within ten feet from the edge of existing unpaved roads, provided, however, that unpaved utility access roads associated with exempt activities under 321 CMR 10.14(11) shall be addressed in and subject to the Division-approved operation and maintenance plan required thereunder;

(11) routine operation and maintenance on existing electrical, gas, and telecommunication distribution and transmission lines and existing substations, provided that the operation and maintenance are part of an operation and maintenance plan approved by the Division, for which a review fee shall be charged, the amount of which shall be determined by the commissioner of administration under the provisions of M.G.L. c.7, § 3B;

(12) the maintenance, repair or replacement, but not widening, of existing paved roads, shoulder repair that does not exceed four feet from an existing travel lane, paved and unpaved driveways and paved and unpaved parking areas, provided such unpaved driveways and unpaved parking areas are for year-round use and are not thereafter paved, but not including bike paths, or parking areas on barrier beaches, coastal beaches, coastal dunes, or salt marshes, as defined by the Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40 and 310 CMR 10.00), and not including actions that are likely to result in changes in storm water drainage;

(13) the maintenance or replacement but not the expansion of existing lawns and landscaped areas;

(14) performance of customary land surveying activities, wetland resource area delineations, percolation tests, environmental assessments and investigations performed in accordance with M.G.L. c. 21E, and other customary preliminary site investigations or customary property due diligence activities, provided that vegetation clearing and soil alteration are avoided or minimized to the maximum extent practicable;

(15) the active management of State-listed Species habitat, including but not limited to mowing, cutting, burning, or pruning of vegetation, or removing exotic or invasive species, for the purpose of maintaining or enhancing the habitat for the benefit of rare species, provided that the management is carried out in accordance with a habitat management plan approved in writing by the Division and;

(16) the management of vegetation within existing utility rights-of-way provided that the management is carried out in accordance with a vegetation management plan approved in writing by the Division prior to the commencement of work for which a review fee shall be charged, the amount of which shall be determined by the commissioner of administration under the provisions of M.G.L. c.7, § 3B;

## 10.14: continued

- (17)(a) the management of vegetation within rail ballast necessary to maintain existing rail lines; and
- (b) other vegetation management outside of ballast areas necessary to maintain existing rail lines, provided that such maintenance is implemented in accordance with a vegetation management plan approved in writing by the Division, for which a review fee shall be charged, and
- (18) The construction of a new residential dwelling, including the proposed lawfully developed paved areas, lawns and landscaped areas associated with such dwelling, on an infill lot, with frontage, of no greater than two acres in size, or such smaller lot size approved by a municipality under the applicable zoning bylaw or ordinance, provided that such lot is part of a residential subdivision that has received final, definitive approval pursuant to M.G.L. c. 41, §§ 81K through 81GG (the state subdivision control law), or is part of residential housing development that has received final, definitive approval pursuant to M.G.L. c. 40B or a special permit pursuant to M.G.L. c. 40A, and the development of the lot does not require a prospective Order of Conditions under the Wetlands Protection Act.

10.15: Emergencies

Any person requesting permission to do an emergency Project or Activity shall specify to the Director why the Project or Activity is necessary for the protection of the health or safety of the citizens of Massachusetts and what agency of the Federal Government, the Commonwealth or political subdivision thereof is to perform the project or activity, or has ordered the Project or Activity to be performed. If the Project or Activity is approved by the Director as an emergency, the approval shall include a description of work which is to be allowed and the duration of the work, and shall not include work beyond that necessary to abate the emergency. Upon completion of an emergency Project or Activity, the authorized person shall file a written report with the Director detailing the work that was done under this emergency authorization and a description of any restoration that may be necessary to restore the site of the Project or Activity. In emergencies that require immediate response in order to protect the health or safety of the public and the responding person is unable to contact the Division prior to responding to the emergency, the Division shall be notified as soon as possible and any additional work shall require approval of the Director. Any Person that initiates an emergency response without prior approval shall file a written report within 30 days with the Director detailing the work that was performed and a description of any restoration that may be necessary to restore the site of the Project or Activity.

10.16: Project Segmentation and the Availability of Comprehensive MESA Reviews and Permits for Certain Municipalities

(1) Project Segmentation. Projects shall not be segmented or phased to evade or defer the review requirements of 321 CMR 10.13 and 10.18 through 10.23 or the eligibility requirements for an exemption under 321 CMR 10.14. For the purposes of 321 CMR 10.13, 10.14 and 10.18 through 10.23, the entirety of a proposed Project subject to review, including likely future expansions, shall be considered, and not separate phases or segments thereof. In determining whether two or more segments or components are in fact parts of one Project, all circumstances shall be considered, including but not limited to time interval between phases, whether the segments or components, taken together, constitute a part of a common plan or scheme, whether there is a commonality of ownership interests across two or more separate legal entities, and whether environmental impacts are separable. Ownership by different entities does not necessarily indicate that two segments or components are separate. The Division may, based on the above considerations, require that two or more projects be reviewed as a common project under 321 CMR 10.18.

10.16: continued

(2) Comprehensive MESA Reviews and Permits for Municipalities.

(a) Municipalities that contain substantial areas of Priority Habitat within their boundaries may request technical assistance from the Division to undertake a joint comprehensive review of existing or potential development or habitat protection and management areas within the municipality for MESA planning and permitting purposes, including obtaining one or more reviews under 321 CMR 10.18 or a comprehensive conservation and management permit under 321 CMR 10.23. Such permit may include permitting approaches or permit conditions that authorize a local mitigation bank for affected state-listed species or the pre-permitting of building envelopes within one or more development areas identified during the above MESA review and permitting process.

(b) A municipality requesting technical assistance from the Division pursuant to 321 CMR 10.16(2) shall submit a plan for the Division's approval that sets forth the municipality's proposed public participation process associated with the assessment and identification of existing or potential development or habitat protection and management areas within the municipality for MESA planning and permitting purposes.

10.17: Requests for State-listed Species Information

(1) Whether a Project or an Activity is within or encroaches upon a Priority Habitat shall be determined by consulting the Natural Heritage Atlas, which shall be the authoritative delineation of the boundaries of said Priority Habitat.

(2) A Record Owner of land in Priority Habitat may submit a written request to the Division for a list of State-listed Species occurring in the Priority Habitat located on that Record Owner's property.

(3) The Division shall respond in writing to such requests within 30 days of receipt of all information required by 321 CMR 10.17(4) and the payment of a fee, the amount of which shall be determined by the commissioner of administration under the provisions of M.G.L. c.7, § 3B.

(4) All requests made under 321 CMR 10.17(2) shall include the following information:

- (a) Name;
- (b) Address;
- (c) Ownership interest in the property;
- (d) Acreage of the Property; and
- (e) A copy of a USGS topographic map in scale 1:24,000 or 1:25,000 with the property location and the location of a proposed Project or Activity clearly marked and centered on the page.

10.18: Review of Projects or Activities for Take of State-listed Species in Priority Habitat

(1) Except as provided in 321 CMR 10.13 and 10.14, any Project or Activity that will be located or will take place in Priority Habitat shall be reviewed by the Division as provided in this section prior to commencement of any physical work or action in Priority Habitat. The Division shall review any such Project or Activity for the purposes of determining if a Take will result from any temporary or permanent modification, degradation or destruction of Priority Habitat occurring as a result of the proposed Project or Activity. Prior to the commencement of any physical work in Priority Habitat, the Record Owner of the land where such Project or Activity will occur shall submit the information listed in 321 CMR 10.20 to the Division. The Division shall notify the Record Owner within 30 days if the materials submitted satisfy 321 CMR 10.20 and request submission of any missing materials. Once the Division has determined all of the materials required by 321 CMR 10.20, including a review fee, the amount of which shall be determined by the commissioner of administration under the provisions of M.G.L. c.7, §3B, then the Division shall issue a file number for the review of that Project or Activity.

(2) After the issuance of a file number, the Division shall review the submitted materials to determine, based on the performance standard in 321 CMR 10.19, if the proposed Project or Activity either:

- (a) has avoided a Take as proposed, or with conditions and may proceed without further review; or

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(b) will result in a Take and cannot proceed as proposed. For purposes of M.G.L. c. 30A, §§ 10 through 14, the determination of a Take shall constitute final agency decision in the form of a denial. The Division's determination shall be made in writing within 60 days after the issuance of a file number. Failure of the Division to issue a written determination within 60 days after the issuance of a file number shall be deemed to be a determination that the proposed Project or Activity does not result in a Take and requires no further review. The Director may extend the 60-day review period for up to two successive 20 day periods if circumstances beyond the control of the Division require additional time to complete the review, in which case the Division shall notify the Record Owner in writing of the extension and the reason for the extension. The response time may also be extended at the written request of the Record Owner.

(3) If the Division has made a determination of a Take, the Record Owner may request a consultation with the Division to discuss options for the Project or Activity that may avoid a Take.

(4) Any Project or Activity that receives a determination that no Take will result (whether in writing or by expiration of the 60-day review period, as may be extended) shall not be subject to further review under 321 CMR 10.18 if physical work on the Project or Activity is commenced within five years from the date of the determination (or the expiration of the 60-day review period, as may be extended). If no physical work is commenced on the Project or Activity within that five-year period, or there is a material change in the plans that were submitted to the Division, the Project or Activity may be subject to further review by the Division.

(5) Performance Standards for Obtaining a No Take Determination for Certain Activities.

(a) Notwithstanding 321 CMR 10.18(1) and (2), a Project or Activity that impacts no more than 10,000 square feet of Priority Habitat mapped solely for a State-listed animal Species of Special Concern will receive a No Take determination from the Division under 321 CMR 10.18, provided that the Division determines that the following performance standards have been met:

1. such Project or Activity is not subject to regulation under the Wetlands Protection Act and 310 CMR 10.00;
2. such Project or Activity will not occur within 300 feet of a vernal pool that has been certified or otherwise determined to provide vernal pool habitat by the Division, or is subject to protection by a municipality, and such vernal pool is mapped as Priority Habitat for any State-listed animal Species that uses vernal pool habitat;
3. the proponent files a plan with the Division that clearly delineates the limit of the work and the location and scope of the impact to Priority Habitat;
4. the proponent thereafter records the plan on the deed of the affected property or properties; and provided that:
5. no more than one such Project or Activity shall be allowed for the site; no action has been taken to segment the Project or Activity to evade compliance with the above performance standards or MESA, as determined by the Division; and the Division, in reviewing any subsequent Project or Activities for the site pursuant to 321 CMR 10.18 may take into account the impact previously authorized under 321 CMR 10.18(5)(a)1. through 4. when determining the MESA permitting and mitigation requirements for the subsequent Project or Activity.

(b) The Division may establish in guidance, performance standards for other Projects or Activities that, if complied with, will receive a No Take determination from the Division under 321 CMR 10.18.

### 10.19: Performance Standard for Avoidance of Take of State-listed Species

Project proponents shall demonstrate that the proposed Project or Activity does not result in a Take, as defined in 321 CMR 10.02 and 10.04.

10.20: Project Filing Requirements

The following information shall be submitted to the Division in order to commence review pursuant to 321 CMR 10.18:

(1) Projects or Activities Impacting Less than Ten Acres.

- (a) Name;
- (b) Address;
- (c) Ownership interest in the property;
- (d) Acreage of the property;
- (e) A copy of a USGS topographic map in scale 1:24,000 or 1:25,000 with the property location clearly marked and centered on the page;
- (f) The area of physical disturbance from the Project or Activity, including the area (square feet or acres) and the percent of the property impacted;
- (g) Assessor's map or right-of-way plan of the site;
- (h) Project plans with existing and proposed conditions;
- (i) Project description; and
- (j) Photographs representative of the site.

The Division may at its discretion request additional information beyond that described above, on a case by case basis such as, but not limited to, species surveys, wetland reports, soil map and reports, and stormwater management reports.

(2) Projects or Activities Impacting Ten Acres or More.

- (a) Name;
- (b) Address;
- (c) Ownership interest in the property;
- (d) Acreage of the property;
- (e) A copy of a USGS topographic map in scale 1:24,000 or 1:25,000 with the property location clearly marked and centered on the page;
- (f) The area of physical disturbance from the Project or Activity, including the area (square feet or acres) and the percent of the property impacted;
- (g) Assessor map or right-of-way plan of the site;
- (h) Project plans with existing and proposed conditions;
- (i) Project description;
- (j) Photographs representative of the site;
- (k) A vegetation cover type map of the site;
- (l) Description of hydrology, and
- (m) The mapped extent of Priority Habitat on the Project or Activity site.

The Division may at its discretion request additional information beyond that described above, on a case by case basis such as, but not limited to, species and habitat surveys, wetland reports, soil map and reports, and stormwater management reports.

10.21: Denial and Appeal

Record Owners for Projects or Activities that the Division has determined under 321 CMR 10.18 will result in a Take may either apply to the Director for a Conservation and Management Permit as provided in 321 CMR 10.23, or appeal the decision as provided in 321 CMR 10.25.

10.22: Extension of a Determination

(1) The Director may extend a determination made under 321 CMR 10.13 or 10.18 or extend the time by which physical work under an individual or general conservation and management permit issued by the Director under 321 CMR 10.23 must commence or be completed. Request for an extension shall be made in writing to the Director at least 30 days prior to the expiration of the applicable deadline.

(2) The Director may deny the request for an extension and require a review for the remaining work in the following circumstances:

10.22: continued

- (a) where no work has begun on the project, except where such failure is due to an unavoidable delay, such as appeals, in the obtaining of other necessary permits;
- (b) where new information, not available at the time the original determination was issued, has become available and indicates that the determination is not adequate to protect the interests identified in M.G.L. c. 131A;
- (c) where incomplete work is causing damage to the interests identified in M.G.L. c. 131A;  
or
- (d) where work has been done in violation of the determination of 321 CMR 10.00.

10.23: Conservation and Management Permit

(1) The Director may, in accordance with provisions of M.G.L. c. 131A, § 3, permit the Taking of a State-listed Species for conservation or management purposes provided there is a long-term Net Benefit to the conservation of the impacted species. The requirements for permitting the Take of a State-listed Species for conservation or management purposes, including a State-listed Species of Special Concern that will occur within a conservation protection zone established in a conservation plan issued by the Division pursuant to 321 CMR 10.26, are set forth in 321 CMR 10.23(2) through (5). The general permit requirements authorizing the Take of a State-listed Species of Special Concern that will occur outside of a conservation protection zone established in a conservation plan issued by the Division pursuant to 321 CMR 10.26 are set forth in 321 CMR 10.23(6). The general mitigation standards to be applied by the Director when issuing individual and general conservation and management permits are set forth in 321 CMR 10.23(7).

(2) Except as provided in 321 CMR 10.23(6), if the Director determines that the applicant for a permit has avoided, minimized and mitigated impacts to State-listed Species consistent with the following performance standards, then the Director may issue a conservation and management permit, provided:

- (a) The applicant has adequately assessed alternatives to both temporary and permanent impacts to State-listed Species;
- (b) An insignificant portion of the local population would be impacted by the Project or Activity, and;
- (c) The applicant agrees to carry out a conservation and management plan that provides a long-term Net Benefit to the conservation of the State-listed Species that has been approved by the Director, as provided in 321 CMR 10.23(5), and shall be carried out by the applicant.

(3) Except as provided in 321 CMR 10.23(6), if a conservation and management permit applicant is unable to demonstrate the long-term Net Benefit performance standard on the project site and the applicant has made every reasonable effort to avoid, minimize and mitigate impacts to the State-listed Species on site, then the conservation and management plan may with the approval of the Director, be designed to meet the long-term Net Benefit performance standard by providing for financial or in-kind contributions toward the development and/or the implementation of an off-site conservation recovery and protection plan for the impacted species.

(4) Except as provided in 321 CMR 10.23(6), within 30 days of the receipt of a final conservation and management plan including a review fee, the amount of which shall be determined by the commissioner of administration under the provisions of M.G.L. c. 7, § 3B or, if a conservation and management plan has been submitted and the Project or Activity is undergoing a MEPA review, then 30 days after the issuance of a final MEPA certificate, whichever is longer, the Director shall make a determination that the submitted plan meets the performance standards and is approved, or a determination that the plan as submitted is inadequate and is denied. Failure of the Director to respond to the final conservation and management plan shall constitute approval of the submitted plan as an approved conservation and management permit. The 30 day response time may be extended for two successive 30 day periods by the Director due to circumstances beyond the control of the Division and the applicant shall be notified in writing of the extension, its period and the reason for the extension.

10.23: continued

(5) The conservation and management permit, if and when issued, shall contain such terms and conditions as the Director deems necessary or appropriate to carry out the purposes of M.G.L. c. 131A, including but not limited to, adequate funding for the conservation and management permit provided by the applicant, and appropriate monitoring and reporting of the results of the conservation and management permit. After being notified in writing, and confirming that the terms of a conservation and management permit have been fulfilled, the Division will promptly issue a certificate of compliance.

(6) Projects or Activities Eligible for Coverage Under a General Conservation and Management Permit when the Division has Issued a Conservation Plan.

(a) Eligibility. The Director may permit the Take of a State-listed Species of Special Concern that will occur outside of a conservation protection zone established in a conservation plan issued by the Division pursuant to 321 CMR 10.26 through the issuance of a general conservation and management permit meeting the requirements of 321 CMR 10.23(6). Notwithstanding the above, a project proponent retains the option of obtaining an individual conservation and management permit meeting the requirements of 321 CMR 10.23(2) through (5) in lieu of obtaining coverage under a general permit issued pursuant to 321 CMR 10.23(6).

(b) Minimum Requirements and Performance Standards Applicable to the General Permit. The Director may authorize an eligible Project or Activity to be covered under a general conservation and management permit if the Director determines that the applicant has submitted a complete and timely application for coverage to the Division, including paying the applicable review fee, that obligates the applicant to comply with the following minimum requirements and performance standards, which will be further specified by the Division in the general permit.

1. The applicant shall implement and comply with species-specific development standards or best management practices, or both, applicable to the geographic area and the species habitat that would be impacted by the Project or Activity. Notwithstanding 321 CMR 10.23(2), the proponent is not required to provide an alternatives analysis or to demonstrate that an insignificant portion of the local population of the affected State-listed Species of Special Concern would be impacted by the Project or Activity.

2. The applicant shall provide off-site mitigation, or a combination of on-site and off-site mitigation subject to the Division's approval, that achieves the long-term Net Benefit standard in 321 CMR 10.23(1), as determined by the Division. Any off-site mitigation provided by the applicant in the form of a financial contribution will be used to fund habitat management or the protection of land or other appropriate mitigation within one or more conservation protection zones established in the conservation plan issued by the Division pursuant to 321 CMR 10.26. The amount of any such off-site mitigation payment will be determined by the Division based on a formula set forth in written guidance that, at a minimum, considers the area of impact on the on-site habitat of the affected State-listed Species of Special Concern and the land values within one or more of the conservation protection zones. Notwithstanding 321 CMR 10.23(3), the applicant may propose off-site mitigation without a showing that the applicant has made every reasonable effort to avoid, minimize and mitigate impacts to the affected State-listed Species of Special Concern on-site.

3. An applicant that submits a complete application for coverage meeting the requirements 321 CMR 10.23(6) and fulfills in a timely manner all of the obligations required by the general permit, as determined by the Division, will be deemed to have carried out a conservation and management plan that provides a long-term Net Benefit to the conservation of the State-listed Species as required by 321 CMR 10.23.

(c) Other Provisions and Requirements Related to the Director's General Permit Authority.

1. The contents of the application for coverage under the general permit and related requirements will be specified by the Division in the general permit or in an application for coverage form developed by the Division. The application for coverage will require the submission of information and other action by the applicant as deemed necessary by the Division for its effective administration of the general permit program.

## 10.23: continued

2. The general permit shall contain such terms and conditions as the Director deems necessary or appropriate to ensure compliance with M.G.L. c. 131A and for the Division's effective administration of the general permit program, including but not limited to, the species-specific development standards or best management practices, or both, applicable to the geographic area and the species habitat that would be impacted by the Project or Activity; funding for the mitigation of impacts to the affected species; and appropriate monitoring and reporting requirements.
3. Within 30 days of an applicant's submission of a complete and timely application for coverage form to the Director and payment of the required fee, the Director will issue a written notification of inclusion of coverage under the general permit to the proponent or a determination that the notice as submitted is inadequate and that coverage is denied. Failure of the Director to respond to the application for coverage within the above time period will constitute the Director's approval that the Project or Activity is authorized under the general permit. The 30 day response time may be extended for two successive 30 day periods by the Director due to circumstances beyond the control of the Division and the applicant shall be notified in writing of the extension, its duration and the reason for the extension.
4. The Director may require any permittee authorized under the general permit to apply for and obtain an individual conservation and management permit pursuant to 321 CMR 10.23(2) through (5). Cases where an individual conservation and management permit may be required include a written determination by the Director that:
  - a. the permittee is not in compliance with the general permit;
  - b. circumstances have changed since the time of the submittal of the application for coverage so that the Project or Activity is not longer appropriately regulated for conservation and management purposes under the general permit; and
  - c. other relevant factors.

(7) General Mitigation Standards Applicable to Individual and General Conservation and Management Permits Issued by the Director.

- (a) The Director, in determining the appropriate nature and scope of mitigation necessary for an applicant for an individual or general conservation and management permit to achieve the long-term Net Benefit performance standard in 321 CMR 10.23(1), will generally apply the following areal habitat mitigation ratios, based on the category of State-listed Species:
  1. Endangered Species: 1:3 (*i.e.*, protection of three times the amount of areal habitat of the affected Endangered Species that is impacted by the Project or Activity);
  2. Threatened Species: 1:2 (*i.e.*, protection of two times the amount of areal habitat of the affected Threatened Species that is impacted by the Project or Activity).
  3. Special Concern Species: 1:1.5 (*i.e.*, protection of one and one half times the amount of areal habitat of the affected Species of Special Concern that is impacted by the Project or Activity).
- (b) The Director reserves the right to require, on a permit-by-permit basis, an areal habitat mitigation ratio or an alternative mitigation approach that differs from the otherwise applicable ratio in 321 CMR 10.23(7)(a)1. through 3. when the Director determines in writing that the alternative mitigation ratio or alternative mitigation approach is either sufficient or required to achieve the long-term Net Benefit performance standard in 321 CMR 10.23(1). A project proponent may also request in writing that the Director apply an alternative mitigation ratio or alternative mitigation approach to the Project or Activity. Any such request shall explain why an alternative mitigation ratio or alternative mitigation approach is appropriate, addressing the relevant factors in 321 CMR 10.23(7)(b)1. through 5. In determining whether an alternative mitigation ratio or alternative mitigation approach is appropriate, the Director will consider factors that include but are not limited to:
  1. the size and configuration of the habitat impact;
  2. the threats to the affected State-listed Species posed by uses or activities located adjacent or in close proximity to the Project or Activity that is the subject of the conservation and management permit;
  3. the size, configuration and quality of the habitat proposed to be protected by the applicant;
  4. the population density of the affected State-listed Species; and
  5. the habitat management and research needs associated with the affected State-listed Species.

## 10.23: continued

(c) For the purposes of providing ongoing, updated guidance to project proponents and the public, the Division will post guidelines on its website for avoiding and minimizing impacts and for achieving the long-term Net Benefit performance standard in 321 CMR 10.23(1) for those State-listed Species for which the Director has issued three or more conservation and management permits during a three year time period. The Director reserves the right to require, on a permit-by-permit basis, mitigation that differs from any relevant mitigation guidelines developed by the Division when the Director determines in writing that the permit-specific mitigation is either sufficient or required to achieve the long-term Net Benefit performance standard in 321 CMR 10.23(1). In determining whether to require permit-specific mitigation that differs from any relevant mitigation guidelines, the Director will take into consideration factors that include those set forth in 321 CMR 10.23(7)(b)1. through 5.

10.24: Effective Date

Amendments to the definition of the terms “Alter”, “Best Scientific Evidence Available”, “Capacity of a Designated Significant Habitat to Support a Population of Endangered or Threatened Species”, “Priority Habitat”, “Project of Activity”, “Record Owner”, and “Take”, as set forth in 321 CMR 10.02, to regulations concerning “Permits for the Taking and Possession of Species, as set forth in 321 CMR 10.04(3), and to regulations concerning “Delineation of Priority Habitat and Review of Activity or Projects within Priority Habitat” as set forth in 321 CMR 10.11 through 10.24, shall take effect following the approval by the Secretary of Administration and Finance of fees for environmental review under 321 CMR 10.00, and the publication of said fees in the *Massachusetts Register* and 801 CMR 4.00, and shall apply to any then pending and new requests for information or applications for a Conservation and Management Permit. The most recently published July 1, 2005, Priority Habitat maps, including updated maps posted on Mass Graphic Information System (GIS), available July 1, 2005 will be the maps used for purposes of 321 CMR 10.00. Changes to Priority Habitat maps will follow guidelines set forth in 321 CMR 10.12. Any person who, prior to the publication of notice of hearing of amendments to the provisions of 321 CMR 10.00, requested and obtained a determination from the NHESP Program that the Program is not aware of any Endangered, Threatened or Special Concern species on the subject land, submitted a project that was approved or that the proposed location of the project does not lie near any estimated or Priority Habitats, such determination shall continue to be effective for a period of three years from the effective date of 321 CMR 10.00.

Any project proponent who has obtained an ORAD for a Project or Activity that was not in Priority Habitat prior to the effective date of the 2010 amendments to 321 CMR 10.00 and would otherwise be eligible for the exemption from MESA review under 321 CMR 10.13(2)(b), shall not be subject to review under MESA if the project proponent thereafter obtains an Order of Conditions, if needed, or one of the permits or approvals in 321 CMR 10.13(2)(c) by the expiration date of the initial three year term of the Final ORAD as required by 321 CMR 10.13(2)(b).

10.25: Appeal Process

(1) Adjudicatory Hearing Before the Division. Any person aggrieved by a final agency decision made pursuant to 321 CMR 10.12, 10.18 or 10.23 shall have the right to an adjudicatory hearing at the Division pursuant to M.G.L. c. 30A, § 11 in accordance with the procedures for informal hearings set forth at 801 CMR 1.02 and 1.03.

(2) Any notice of claim for an adjudicatory hearing shall be made in writing and be accompanied by a filing fee the amount of which shall be determined by the commissioner of administration under the provisions of M.G.L. c. 7, § 3B, and be sent to the Division by certified mail, hand delivered or postmarked within 21 days of the date of the agency final decision.

(3) Any notice of claim for an adjudicatory hearing shall include the following information:

- (a) the file number of the project;

10.25: continued

(b) the complete name, address and telephone number of the person filing the request; the name, address and telephone number of any authorized representative; and the specific facts that demonstrate that a party filing a notice of claim satisfies the requirements of an "aggrieved person," including but not limited to how they have a definite interest in the matters in contention within the scope of interests or area of concern of M.G.L. c. 131A or the regulations at 321 CMR 10.00 and have suffered an actual injury which is special and different from that of the public and which has resulted from violation of a duty owed to them by the Division;

(c) a clear statement that an adjudicatory hearing is being requested;

(d) a clear and concise statement of facts which are grounds for the proceeding, the specific objections to the actions of the Division and the basis for those objections, and the relief sought through the adjudicatory hearing; and a statement that a copy of the request has been sent by certified mail or hand delivered to the applicant and the Record Owner, if different from the applicant.

(4) The presiding officer in an adjudicatory proceeding at the Division may allow a person who demonstrates, as required by 321 CMR 10.25(3)(b), that they are aggrieved to join or intervene in the adjudicatory proceeding.

(5) Judicial Review Under M.G.L. c. 30A. Any person aggrieved by any final decision of the Division made under 321 CMR 10.12, 10.18, or 10.23 in an adjudicatory proceeding shall be entitled to judicial review in accordance with the provisions of M.G.L. c. 30A, § 14.

10.26: Conservation Planning for State-listed Species of Special Concern

(1) The Division may develop and issue a conservation plan for a State-listed Species of Special Concern whenever the Division determines that such a plan will be an effective means of ensuring the long term viability and protection of the species in the Commonwealth. A conservation plan for a State-listed Species of Special Concern shall, at a minimum, include:

(a) a description of the biology, life history, historic distribution, and population status of the species;

(b) an assessment of the current threats to the species;

(c) identification of specific geographic areas that the Division determines would serve as conservation protection zones that are critical to ensuring the long term viability and protection of the species;

(d) identification of specific conservation goals, including targets for protecting land containing habitat for the species within the conservation protection zones established by the Division in the plan, and an assessment of the extent to which such land protection targets have been met as well as other conservation approaches for the species; and

(e) the proposed general permit that will authorize, and set forth the conditions applicable to, any take of the species that will occur outside of a conservation protection zone established in the plan.

(2) The Division will provide a 60 day public comment period on any proposed or modified conservation plan, and post the plan on the Division's website. The Division will also publish notice of the public comment period on the Division's website, in the Environmental Monitor, in a newspaper with state-wide circulation and in other newspapers with regional or local circulation, as deemed appropriate by the Division.

(3) Following the close of the public comment period, the Division will determine whether any modifications to the proposed conservation plan are appropriate. The Division will post the final conservation plan, together with a summary explanation of and any significant modifications to the proposed plan, on the Division's website.

10.26: continued

(4) Once a final conservation plan has been issued by the Division in accordance with the procedures in 321 CMR 10.26(1) through (3), a Project or Activities proposed within a Priority Habitat for the State-listed Species of Special Concern subject to the conservation plan will continue to be subject to review by the Division pursuant to 321 CMR 10.18. In addition, any take of a State-listed Species of Special Concern subject to the conservation plan may be authorized by the Division through the issuance of a conservation and management permit pursuant to 321 CMR 10.23, except that any take of the species that will occur outside of a conservation protection zone established in the plan may be authorized by the Division through the issuance of a general conservation and management permit in accordance with the requirements of 321 CMR 10.23(6).

(5) The Division will periodically review the content, status and effect of a final conservation plan and may modify the plan based on its review, including making changes to the number, location and configuration of conservation protection zones. Any substantial modifications to a final conservation plan will be adopted by the Division in accordance with the public review and comment procedures in 321 CMR 10.26.

PART III: DESIGNATION OF SIGNIFICANT HABITAT

10.30: Designation of Significant Habitat

(1) Purpose. Listed species are frequently restricted in their occurrence to rare, reduced, or specialized habitat types. Consequently, listed species may be jeopardized if their habitat areas are threatened by direct or indirect habitat-altering activities. The types of habitat which presently harbor state listed species are diverse and may include, but are not limited to: coastal plain kettle ponds, sandplain grasslands, limestone wetlands, vernal pools, pitch pine/scrub oak barrens, coastal heathlands, floodplain forests, estuaries, barrier beaches, and marshes with emergent vegetation.

(2) Designation Process. The designation of a Significant Habitat shall consist of a review of biological data, a designation proposal, notice and public hearing, a review of the proposed designation, and the Director's finding and designation.

10.31: Designation Proposal

On an annual basis, the Director shall consult the records of the Natural Heritage and Endangered Species Program and shall propose for designation as Significant Habitats those areas for which, in her judgment, there is sufficient scientific evidence that the area contains physical or biological features important to the conservation of one or more Endangered or Threatened species populations and which may require special management considerations or protection.

10.32: Notice and Public Hearing

(1) Notice of Public Hearing. Before designating an area as Significant Habitat, the Director shall first give notice, as provided in 321 CMR 10.32, of a public hearing. Not less than 30 days prior to the public hearing, notice shall be sent:

- (a) by certified mail to record owners of lands or interests in lands containing habitat proposed to be designated;
- (b) by first class mail to boards of selectmen, town managers, city councils, or mayors; regional permit granting agencies; zoning boards; planning boards; and conservation commissions of towns or cities in which the habitat is located; and

## 10.32: continued

(c) at the Director's discretion, to other interested citizens, agencies, and organizations.

The Director shall give notice by mail to any person who has filed a written request to receive the notice of said public hearing to be held under 321 CMR 10.00 at least 14 days prior to the date of the public hearing. Any of the notices required to be given pursuant to 321 CMR 10.00 shall be deemed to have been given upon mailing a copy of the notice.

(2) Publication of Notice. The Director shall submit the notice to the Secretary of EOEI in time for publication in the Environmental Monitor at least 21 days prior to the public hearing. The Director shall also publish notice of the public hearing at least 21 days prior to the date of the public hearing in a newspaper of general circulation in the vicinity of the proposed area and in such appropriate trade, industry, informational, or professional publications as she may choose.

(3) Filing Notice With the Secretary of State. The Director shall file notice of the public hearing with the Secretary of State at least 21 days prior to the date of the public hearing.

(4) Special Notice to Landowners. Notice to landowners shall include: a citation of authority under which the designation would occur; a general description of the area proposed for designation, copies of pertinent sections of M.G.L. c. 131A and 321 CMR 10.30; a summary of the reasons for such designation; a map of the approximate area to be designated; the time and place of the public hearing, and the method by which persons may make their views known.

(5) Public Hearing. The Director and the Fisheries and Wildlife Board shall hold a public hearing prior to designating an area as Significant Habitat. The hearing must be held within 25 miles of the area proposed for designation or at the nearest location where a suitable facility exists. The chairman of the Fisheries and Wildlife Board or her designee shall conduct the public hearing. A summary of the reasons for the designation and a map of the approximate area to be designated shall be made available to the public not less than 21 days prior to the date of the public hearing.

10.33: Review of Proposed Designation

Prior to designating an area as Significant Habitat, the Director shall review the information presented at the public hearing, any written comments submitted within 21 days after the public hearing, and any other information the Director deems appropriate, and shall take into consideration the following:

(1) the size of the population, as evidenced by current estimates of the number of individuals in the population of the Endangered or Threatened species;

(2) the current and foreseeable uses of the land or water, as evidenced by its existing condition; existing roads, structures, and other improvements; proposed uses and improvements; zoning status; existing easements, encumbrances and other restrictions on the use of the land or water; and other regulatory constraints;

(3) the current and foreseeable threats to the population or its habitat, as evidenced by existing or proposed activities that may impact or fragment the habitat such as: landform alterations; pollution of surface, ground, or marine waters; alteration of the hydrology; proposals for development projects; and plans for infrastructure developments such as sewers, water systems, and roads; or regional growth trends; and

(4) the potential benefits of designation to the population and to the status and welfare of the species generally, as evidenced by how designation will help further the conservation of the population and of the species generally in the state.

10.34: Director's Finding and Designation

(1) Decision. Within 60 days of the public hearing held pursuant to 321 CMR 10.32, the Director shall make a final decision, with the approval of the Fisheries and Wildlife Board and the advice of the Natural Heritage and Endangered Species Advisory Committee, whether to designate a proposed area as Significant Habitat. The Director shall decide in favor of designating a proposed area as Significant Habitat upon finding that, on the basis of the best scientific evidence available, the area contains physical or biological features important to the conservation of an Endangered or Threatened species population and, on the basis of the factors listed in 321 CMR 10.33, the area requires special management considerations or protection, and therefore is a Significant Habitat of Endangered or Threatened species.

(2) Preparation of Designation Regulation. Upon making a final decision to designate an area as Significant Habitat, the Director shall prepare for filing with the Secretary of State a regulation establishing said area as Significant Habitat, which regulation shall be in the form of an addition to 321 CMR 10.99 (Designated Significant Habitats).

(3) Specifications. The Director may specify in the designation regulation certain activities which may or may not alter the Significant Habitat; provided, however, that the Director may specify that such activity shall be considered an alteration, but that the Director may not specify that a categorical alteration under 321 CMR 10.63(1) shall be considered a non-alteration.

(4) Designation Document. Upon making a final decision to designate an area as Significant Habitat, the Director shall prepare a Designation Document. The Designation Document shall include a general description of the area to be designated, a summary of the reasons for such designation, a citation of authority for the designation, a copy of the designation regulation as submitted to the Secretary of State, and a map or aerial photograph showing the boundaries of the designated Significant Habitat described by metes and bounds or another adequate method.

(5) Decision to Not Designate. Upon making a final decision not to designate an area as Significant Habitat, the Director shall prepare a notice of such decision together with a description of the reasons for not designating the Significant Habitat. The Director shall distribute said notice to those persons and publications which received the public notice of the public hearing.

(6) Notice of Director's Finding. Upon making a final decision to designate or not to designate an area as Significant Habitat, the Director shall submit a notice of such decision to the Secretary of EOE for publication in the *Environmental Monitor*.

10.35: Filing of Designation Regulation and Effective Date

No later than seven days after making a decision to designate, the Director shall submit a copy of the designation regulation to the Secretary of State for publication in the *Massachusetts Register*. The effective date of any designation shall be the date of publication in the *Massachusetts Register*.

10.36: Distribution of and Availability of Designation Document

The Director shall make the Designation Document available for inspection by the public in the Division's office at 251 Causeway Street, Suite 400, Boston, MA, during regular business hours. The Director shall send by first class mail such Designation Documents to zoning boards of appeals, planning boards, conservation commissions, municipal departments of public works, and the boards of selectmen or mayors and city councils, in those communities where the Significant Habitat which is the subject of the Designation Document is located, appropriate regional permit granting commissions, and by certified mail to record owners within seven days of the Director's decision under 321 CMR 10.34.

10.37: Recording of Designation

Within 180 days of the effective date of a regulation designating Significant Habitat, or within 30 days after the secretary's finding under 321 CMR 10.38(2) on any pending appeal, whichever is later, the Director shall prepare a Recording Document identifying the location of the Significant Habitat, together with a list of the record owners of such Significant Habitat, which shall be recorded in the proper registry of deeds or, if the land containing Significant Habitat is registered land, in the appropriate registry district of the land court. The Director shall send a copy of the Recording Document by certified mail to each record owner.

10.38: Appeals of Significant Habitat Designations

(1) Process. Within 21 days of the effective date of a regulation designating Significant Habitat, record owners of lands or interests in lands containing such Significant Habitat may appeal the Director's designation by sending a notice of appeal by certified mail to the Secretary of EOE. The Secretary shall hold a hearing on such appeal within a reasonable time, and in no case later than 120 days after the effective date of the regulation designating the Significant Habitat, and shall make a determination thereon within 60 days of the hearing.

(2) Standard of Review. The Secretary of EOE shall reverse a designation of the Director only upon a finding that the designation was without substantial basis in fact. For the purposes of 321 CMR 10.38, "without substantial basis in fact" shall mean that there is no credible scientific information in the record that supports the Director's finding and designation under 321 CMR 10.34.

(3) Reversal of Designation. Upon the reversal of a designation the Director shall rescind the regulation or a part thereof, which established such designation, as it affects the appealing record owner, and shall file with the registry of deeds or land court, as appropriate, a recordable document indicating said rescission if a Recording Document previously had been filed with respect to the land.

10.39: Petition to Purchase Significant Habitat

In addition to the procedures specified in 321 CMR 10.38, within 21 days of the effective date of a regulation designating Significant Habitat, record owners of land which has been designated as Significant Habitat may petition the Director to consider purchasing either the affected portion or the entire parcel of land upon which the Significant Habitat is located with monies appropriated by the general court or from bond funds.

10.40: Review and Revision of Significant Habitat Designations

The Director shall review designated Significant Habitats on a yearly basis and may, from time to time, revise such designations by designating additional areas as Significant Habitat or undesignating areas that no longer warrant designation. Such revisions shall be treated as new designations and subject to the procedures at 321 CMR 10.31 through 10.38.

PART IV: ALTERATION OF SIGNIFICANT HABITAT

10.60: Introduction

Part IV of 321 CMR 10.00 applies to activities within designated Significant Habitat and is promulgated in addition to those regulations set forth in Parts I, III, and V of 321 CMR 10.00. Part IV of 321 CMR 10.00 establishes rules and procedures for determining which activities are alterations of Significant Habitat and therefore need to obtain an alteration permit from the Director. Activities which are exempted from any review are also defined. Part IV of 321 CMR 10.00 establishes rules and procedures for the review of alterations in Significant Habitats. Permits may be sought through either a standard review process or through procedures coordinated with the MEPA process or the Department of Agricultural Resources' Rights-of-way Management program.

10.61: Activities Within Significant Habitat

- (1) General Rule. Except as otherwise provided, no person may undertake any activity that constitutes an alteration of a Significant Habitat without a written Alteration Permit issued by the Director.
- (2) Activities Which Require an Alteration Permit. An activity requires an Alteration Permit before commencing if the activity:
  - (a) will occur within a Significant Habitat;
  - (b) is not exempted by 321 CMR 10.62; and
  - (c) is an alteration of Significant Habitat, as determined by:
    1. the categorical list of alterations under 321 CMR 10.63(1);
    2. the list of alterations specified in 321 CMR 10.99; or
    3. the Director under 321 CMR 10.64.
- (3) Activities That Do Not Require an Alteration Permit. An activity does not require an Alteration Permit before commencing if the activity:
  - (a) will not occur within a Significant Habitat;
  - (b) is exempted under 321 CMR 10.62; or
  - (c) is not an alteration of Significant Habitat, as determined by:
    1. the categorical list of non-alterations under 321 CMR 10.63(2);
    2. the list, if any, of non-alterations specified in the Significant Habitat designation regulation (321 CMR 10.99, Part III); or
    3. the Director under 321 CMR 10.64.
- (4) Determining Whether an Activity Will Occur in a Significant Habitat.
  - (a) A person may determine whether an activity will occur in a Significant Habitat by consulting the descriptions of Significant Habitats at 321 CMR 10.99, which shall be considered the authoritative description of the boundaries of said Significant Habitat. Maps showing the approximate location of Significant Habitats shall be available for inspection at the NHESP and shall have been mailed, pursuant to 321 CMR 10.36, to zoning boards of appeals, planning boards, conservation commissions, municipal departments of public works, and the boards of selectmen or mayors and city councils, in those communities where such habitats occur, and appropriate regional permit granting commissions.
  - (b) An owner of land or interest in land adjacent to or potentially within Significant Habitat may request the Director to make a determination whether an activity will occur in a Significant Habitat. The Director may also, on her own initiative, make such a determination.
- (5) Preliminary Notice of Activities. Any person filing a petition, request, or application to a board of health, building inspector, zoning board, planning board, or conservation commission for any kind or type of permit, order, variance, ruling or approval regarding a proposed activity within a Significant Habitat shall send notice in writing to the Director within 21 days of such filing; provided that a filing with the NHESP pursuant to rare species provisions of the Wetlands Protection Act regulations (310 CMR 10.37 or 10.59) shall constitute compliance with this provision.

10.62: Activities Exempt from the Requirement for an Alteration Permit

- (1) Agriculture and Aquaculture. The normal maintenance and improvement of land in agricultural or aquacultural use shall be exempt from the requirement to obtain an Alteration Permit. This exemption shall continue only so long as such land remains in agricultural or aquacultural use. Land in agricultural or aquacultural use does not include those portions of a site that are not in such use and are not designated fallow land. The normal maintenance and improvement of land in agricultural or aquacultural use does not include site preparation for purposes of conversion to another, non-agricultural or non-aquacultural use. To qualify for this exemption, land in agricultural use shall have been in such use and not fallow or inactive three out of five years preceding the effective date of designation. To maintain this exemption land in agricultural use must remain in such use but may lie fallow for a period of time if used for agriculture at least three out of every five years. Land lying fallow more than two out of five years shall qualify or continue to qualify for this exemption upon certification by the

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Commissioner of the Department of Agricultural Resources that the fallow condition of the land is necessary to maintain the land in agricultural use.

(2) Land in Forestry Use. The normal maintenance and improvement of land in forestry use for which the landowner has engaged in the following consultation and certification process, shall be exempt from the requirement of an Alteration Permit.

(a) Plan Submission. A landowner shall submit a forest management plan to the state forester and NHESP for review.

(b) Plan Review and Consultation. NHESP shall review the forest management plan; shall make recommendations with respect to the avoidance, minimization or mitigation of impacts on Endangered, Threatened, or Special Concern species; and shall submit such recommendations to the landowner and the state forester. Failure of the NHESP to make any such recommendations within 60 days of receipt of such plan shall constitute consultation and approval by NHESP of the plan. The state forester shall review the forest management plan and the NHESP's recommendations. The state forester shall certify the plan if she finds:

1. that the plan constitutes a planned program to improve the quantity and quality of a continuous crop for the purpose of selling such products in the regular course of business; and

2. that the NHESP has determined that the plan will take all practicable means and measures to avoid damage to state listed species or their habitats.

(c) Certification of Plan. If the state forester finds that either requirement has not been met she shall deny certification of the plan and return the plan to the landowner with a statement of the reasons for the denial. If the state forester finds that both requirements have been met she shall prepare a certification document to be signed by both the state forester and the NHESP and affixed to the approved plan and shall send copies of the same to the landowner and NHESP.

(3) Single Family House. A landowner may construct without the requirement of an Alteration Permit a single family house covering no more than 3,000 square feet of ground and install any necessary utilities to service said house and construct in a reasonable fashion a single access driveway to the nearest public or private way on a lot having an area of at least three acres; provided, however, that the lot on which said construction takes place was owned by said landowner and in existence on January 1, 1990; and provided, further, that said lot was not held in common ownership with any adjoining land as of said date. For purposes of 321 CMR 10.62(3)(e) the phrase "in existence" shall mean a lot shown on a definitive plan that has received final approval under M.G.L. c. 41 or shown on a plan that has been endorsed under M.G.L. c. 41, § 81(P). Upon submission of a Notice of Intent under the Wetlands Protection Act M.G.L. c. 131, § 40 or application for a building permit, whichever is first, landowners intending to construct such a house shall submit by certified mail or hand delivery to the Director a completed form, available upon request from the Division of Fisheries and Wildlife, and supporting documentation demonstrating that the conditions for the exemption have been met. The form shall request the following information:

(a) property owner's name and mailing address;

(b) address of new house;

(c) occupancy of the proposed house (number of families)

(d) square feet of ground covered by the house;

(e) the size of the lot in acres;

(f) owner of the lot on January 1, 1990;

(g) ownership of any adjoining land by property owner specified in 321 CMR 10.62(3)(f) on January 1, 1990;

(h) date of approval of the definitive subdivision plan, prepared pursuant to M.G.L. c. 41, or date of endorsement of a plan pursuant to M.G.L. c. 41, § 81(P), showing the house lot, if any;

(i) a plan showing the boundaries of the lot, the location and footprint of the house, the location of any proposed driveways, the location of the nearest public way, and the location of any other existing or proposed structures.

(j) an 8½" X 11" section of a USGS 7½ minute topographic map (original or photocopy) showing the location of the proposed house clearly; and

(k) signature of property owner and date.

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(4) Projects in Receipt of a Building Permit or which are in Compliance with MEPA. Activities within a Significant Habitat shall be exempt from the requirement of an Alteration Permit if either of the following have occurred prior to the issuance of notice of public hearing of proposed Significant Habitat designation pursuant to 321 CMR 10.32(1)(a):

- (a) a building permit for such activities has been issued; or
- (b) the Secretary of EOEA has certified no more than three years prior to designation that a Final EIR for such activities fully and adequately complies with MEPA; provided, however, that such EIR evaluated the potential impacts of the project on the state listed species occurring in the Significant Habitat at the time of designation.

10.63: Categorical Alterations and Non-alterations

(1) Alterations of Significant Habitat. The following categories of activities shall always be considered alterations:

- (a) construction, reconstruction, or expansion of buildings, structures, roads, driveways, parking areas, towers, sub-surface sewage disposal systems, stormwater management systems, golf courses, reservoirs and dams, ponds however created, utility transmission lines, pipelines, lawns, irrigation systems, or landscaped areas;
- (b) clearing, paving, grading, or excavation of land;
- (c) mining, including the excavation of sand and gravel;
- (d) any activity subject to the jurisdiction of the Wetlands Protection Act (M.G.L. c. 131, § 40) and the regulations promulgated thereunder;
- (e) discharge, storage, or disposal of solid waste, rubbish, stormwater, waste water, toxic or hazardous substances, petroleum-based products, dredged materials, or fill;
- (f) the pumping or diversion of surface or ground water for any purpose other than for an individual household;
- (g) application of pesticides, herbicides, or other biocides; and
- (h) forestry activities that are not exempt under 321 CMR 10.62(2).

(2) Non-alterations of Significant Habitat. Unless a Significant Habitat designation regulation indicates to the contrary, the following categories of activities shall not constitute alterations of Significant Habitat:

- (a) maintenance, use, or vertical expansion of existing buildings and structures;
- (b) maintenance and use of existing improved roads, driveways, and parking areas, but not including changes in storm water drainage;
- (c) maintenance and use of existing lawns and landscaped areas, but not including the application of pesticides, herbicides or other biocides or the installation of underground irrigation systems, and
- (d) performance of land surveying activities by a registered land surveyor.

For the purposes of 321 CMR 10.63(2), "existing" shall mean in existence prior to the issuance of notice of public hearing of proposed Significant Habitat designation pursuant to 321 CMR 10.32(1)(a).

10.64: Director's Determination Whether an Activity Will Alter Significant Habitat

(1) Any activity proposed in a Significant Habitat that is not exempted by 321 CMR 10.62, is neither a categorical alteration (321 CMR 10.63(1)) nor a categorical non-alteration (321 CMR 10.63(2)) and is not specified as an alteration in the regulation designating the Significant Habitat, must be reviewed by the Director prior to commencing in order to determine whether the activity is an alteration of Significant Habitat requiring an Alteration Permit.

(2) Requests for such a determination shall be submitted to the Director on an Activity Description Form. Activity Description Forms are available from the Division and shall request the following information:

- (a) project/activity name and address;
- (b) proponent's name and address;
- (c) landowner's name and address;
- (d) exact location(s) of each activity within the Significant Habitat;
- (e) description of each activity;
- (f) type of each activity;

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- (g) commencement and completion dates;
- (h) signature of proponent and date; and
- (i) signature of landowner and date.

(3) The Director shall respond in writing to such requests within 30 days of receipt of all information required on the form. Failure of the Director to respond within 30 days shall be equivalent to a determination that the proposed activity is not an alteration requiring a permit.

(4) The Director shall determine that an activity is an alteration requiring an Alteration Permit if the activity will detrimentally affect the capacity of the habitat to support a population of Endangered or Threatened species.

10.65: Review Procedures

Activities requiring an Alteration Permit shall be reviewed pursuant to the Standard Permit Review procedures at 321 CMR 10.66 unless the alteration is subject to Coordinated Permit Review. The following alterations shall be subject to Coordinated Permit Review procedures:

(1) MEPA. Alterations which are part of a project subject to environmental review under MEPA shall be reviewed according to the Coordinated Permit Review procedures at 321 CMR 10.67.

(2) Utility Rights-of-way. Vegetation management activities conducted by gas or electric utility companies on existing rights-of-way shall be reviewed according to the Coordinated Permit Review procedures at 321 CMR 10.68.

10.66: Standard Permit Review

(1) Submission of Request to Alter Significant Habitat. A person wishing to alter Significant Habitat shall submit to the Director a completed Request to Alter Significant Habitat (RTA) form. RTA forms are available from the Division and shall request the following information:

- (a) project/activity name and address;
- (b) proponent's name and address;
- (c) landowner's name and address;
- (d) a complete description of the project and the anticipated uses, including project locus, site plans, grading plans, and Notice of Intent and response of NHESP to any filing pursuant to the rare species provisions of the Wetlands Protection Act regulations (310 CMR 10.37 or 10.59), if any;
- (e) the possible alternatives to the proposed project and anticipated use(s);
- (f) the anticipated impacts of the proposed project on any Endangered or Threatened species;
- (g) full plans for the protection of any Endangered or Threatened species present and the short term and long term avoidance, minimization or mitigation measures to be taken to provide amelioration of the impact;
- (h) the potential economic effects of the proposed project on the proponent and the local community, if any;
- (i) signature of proponent and date; and
- (j) signature of landowner and date.

(2) Segmentation. Several alterations of Significant Habitat which are part of a single project shall be described on a single RTA. In conducting permit review, the entirety of a proposed project, including likely future expansions, shall be considered, and not separate phases or segments thereof. In determining whether two or more alterations are in fact parts of one project, all circumstances are to be considered, including but not limited to time interval between phases; whether the alterations, taken together, constitute a part of a common plan or scheme; and whether environmental impacts are separable. Ownership by different entities does not necessarily indicate that two alterations are separate. It is the intent of this rule that projects not be segmented or phased to evade or defer review.

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(3) Initial Review of RTA for Completeness. The Director shall review the RTA and determine if it contains all necessary information. The Director shall notify the proponent of any additional information necessary to review the alteration no more than 21 days after receiving the RTA. If the Director does not notify the proponent of any additional information requirements within the 21 day period the RTA shall be considered complete.

(4) Director's Review. Within 45 days of receiving all required information, the Director shall determine whether the alteration will reduce the Viability of the Significant Habitat to support the population of Endangered or Threatened species involved; provided, however, that the Director may enter into a written agreement with the proponent to extend the period for such determination.

(5) Consultation. Prior to acting on a RTA, the Director will schedule with the proponent a public consultation session to review the proposed alteration and discuss potential impacts. The Director shall publish a notice of the consultation session in a newspaper of general circulation in the area of the Significant Habitat involved at least seven days before the consultation session.

(6) Criteria for Issuing Permits. The Director shall apply the following criteria when determining whether the proposed alteration will reduce the Viability of the Significant Habitat. The Director shall determine that the alteration will reduce the Viability of the Significant Habitat if an alteration may directly or indirectly:

- (a) change the environment in any way which likely will result in stress, lowered reproduction or growth, or decline of the local population of the Endangered or Threatened species involved;
- (b) prevent, hinder, or stop ecological processes which are important for the survival or recovery of the Endangered or Threatened species involved;
- (c) isolate portions of the Endangered or Threatened species populations from each other;
- (d) disrupt seasonal or daily movements or migrations of Endangered or Threatened animals or dispersal of Endangered or Threatened plants; or
- (e) decrease the probability of long term survival or recovery of the affected local population(s) of Endangered or Threatened species.

(7) Issuance of Permit. The Director shall issue an Alteration Permit only upon determining that the alteration will not reduce the Viability of the Significant Habitat. The Alteration Permit shall contain such conditions as are necessary to ensure that the alteration will not reduce the Viability of the Significant Habitat. The Director may include requirements for biological monitoring as a means for assessing compliance with the terms of the Alteration Permit and the success or failure of avoidance, minimization, or mitigation measures. Unless the terms of the Alteration Permit indicate otherwise, the proponent shall complete the permitted activities within three years of the issuance of the Alteration Permit.

(8) Denial of Permit. The Director shall issue a permit denial upon determining that the alteration will likely reduce the Viability of the Significant Habitat, including a statement of the reasons for such denial.

(9) Revocation. Upon a determination that a proponent is conducting or has conducted activities in violation of an Alteration Permit, the Director may revoke said Alteration Permit. Revocation of a permit shall not limit any other enforcement or penalty for violation of M.G.L. c. 131A or 321 CMR 10.30.

10.67: MEPA: Coordinated Permit Review

(1) General. Activities which are part of projects reviewed under MEPA are subject to the following coordinated permit review procedures.

(2) Procedures.

- (a) If the secretary of EOEPA has certified that a project does not require the preparation of an EIR, the proponent shall submit to the Director a copy of the secretary's ENF certificate.

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- (b) If an EIR was prepared for a project and the Final EIR was certified by the secretary, the proponent shall submit to the Director a copy of the secretary's certificate on the Final EIR.
- (c) The Director shall determine whether the NHESP reviewed the project within the time periods prescribed at 321 CMR 10.67(2)(e) and made recommendations with respect to the avoidance, minimization or mitigation of impacts on Endangered, Threatened, or Special Concern species; and whether the project proponent has incorporated any such avoidance, minimization, or mitigation measures in the project design. If the Director finds that the NHESP made such recommendations and that they were incorporated into the project design by the project proponent, the Director shall issue an Alteration Permit forthwith without further conditions, except that the permit may be conditioned upon implementation of such avoidance, minimization, or mitigation measures, which may include biological monitoring and reporting requirements to enable the Director to determine if the avoidance, minimization, or mitigation measures are fulfilling the conditions of the permit.
- (d) If the Director finds that the project proponent has not incorporated such recommendations, the Director shall deny the permit.
- (e) Failure of the NHESP to make any recommendations within the following time periods shall be equivalent to the issuance of a permit by the Director:
1. if an EIR is not required, or further review is not required after notice of project change, 90 days after the secretary issues a notice of the receipt of the ENF, as described in M.G.L. c. 30, § 62A and the regulations thereunder;
  2. if an EIR is required, or further review is required, prior to certification by the Secretary that the final EIR or project change adequately and properly complies with MEPA; or
  3. if preparation of an EIR has been waived by the Secretary, during the time period prescribed by the MEPA regulations for comments on the tentative grant of waiver.

10.68: Vegetation Management on Existing Utility Rights-of-way: Coordinated Permit Review

- (1) General. Activities which consist of vegetation management activities conducted by gas or electric utility companies on existing rights-of-way subject to review under 333 CMR 11.00 are not subject to standard review under 321 CMR 10.66 by the Director if the following coordinated permit review procedures are followed.
- (2) Review of Vegetation Management and Yearly Operating Plans. Vegetation Management Plans (VMPs) and Yearly Operating Plans (YOPs) shall be submitted to NHESP at the same time they are submitted to the Department of Agricultural Resources, pursuant to M.G.L. c. 132B, § 6B and 333 CMR 11.00. For the purposes of 321 CMR 10.38, the VMP or YOP shall mean the document prepared for the Department of Agricultural Resources pursuant to 333 CMR 11.00 and any maps or plans of appropriate scale and detail requested by NHESP for the purpose of determining the precise location of vegetation management activities. If NHESP does not request any such maps or plans during the review period the VMP or YOP shall be considered complete. No more than 90 days following receipt of the VMP or YOP, NHESP shall provide recommendations to the applicant and the Department of Agricultural Resources with respect to the avoidance, minimization or mitigation of impacts on state listed species.
- (3) Issuance of a Permit By the Director.
- (a) Request for Permit. Prior to commencing vegetation management activities the applicant shall submit to the Director copies of the VMP, YOP, and comments submitted by the NHESP on the VMP and YOP, if any.
  - (b) Review of Materials. Based on the materials submitted, the Director shall determine whether the NHESP reviewed the VMP and YOP within 90 days of receipt of such plans and made recommendations with respect to the avoidance, minimization or mitigation of impacts on state listed species; and whether the applicant has incorporated any such avoidance, minimization, or mitigation measures in the VMP and YOP. If the Director finds that the NHESP made such recommendations and that they were incorporated into the VMP and YOP by the applicant, the Director shall issue an Alteration Permit forthwith without further conditions, except that the permit may be conditioned upon implementation of such avoidance, minimization, or mitigation measures, which may include biological monitoring and reporting requirements to enable the Director to determine if the avoidance, minimization, or mitigation measures are fulfilling the conditions of the permit. The

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Director shall send a copy of the Alteration Permit to the Department of Agricultural Resources.

(c) Denial of Permit. If the Director finds that the applicant has not incorporated such recommendations, the Director shall deny the permit. The Director shall send notice of denial of the permit to the applicant and the Department of Agricultural Resources.

(4) Failure of NHESP to Comment. Failure of the NHESP to make any recommendations within 90 days of receipt of the VMP or YOP shall be equivalent to the issuance of a permit by the Director. This rule applies only to VMPs or YOPs submitted to NHESP after the issuance of notice of public hearing of proposed Significant Habitat designation pursuant to 321 CMR 10.32(1)(a). Upon request of the landowner or applicant, the Director shall determine whether NHESP failed to comment within 90 days of receipt of the VMP or YOP and certify in writing NHESP's failure to comment if such failure occurred.

10.69: Recording of Alteration Permits

Prior to commencement of any alteration permitted by an Alteration Permit, the Alteration Permit shall be recorded by the record owner in the Registry of Deeds, or filed with the Land Court for the district in which the land is located, within the chain of title of the affected property and shall also be noted in the Registry's Grantor Index under the name of the owner of the land upon which the proposed alteration will take place. If the record owner fails to record the Alteration Permit, the Director may do so. In the case of registered land, the Alteration Permit shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed alteration will take place.

10.70: Variance

(1) The Director may issue a variance from the requirement of 321 CMR 10.66 that an alteration not reduce the Viability of the Significant Habitat if she finds that:

- (a) there are no reasonable conditions or alternatives that would allow the project to proceed in compliance with the regulation;
- (b) that avoidance, minimization, or mitigating measures are proposed that will allow the project to be conditioned so as to contribute to the protection of the Viability of the Significant Habitat to support the local population of Endangered or Threatened species involved; and
- (c) that the variance is necessary to avoid permit conditions or the denial of a permit that so restricts the use of property as to constitute an unconstitutional taking without compensation.

(2) A request for a variance shall be made in writing and shall include, at a minimum, the following information:

- (a) a description of alternatives explored that would allow the project to proceed in compliance with the regulation and an explanation of why each is unreasonable;
- (b) a description of the avoidance, minimization, or mitigating measures to be used to contribute to the protection of the Viability of the Significant Habitat to support the population of Endangered or Threatened species involved; and
- (c) evidence that the permit conditions or denial of a permit so restricts the use of the land that it constitutes an unconstitutional taking without compensation.

(3) The request for a variance shall be sent to the Director by certified mail or hand delivered and shall not be filed until the applicant first completes the review procedures described at 321 CMR 10.66. The Director shall arrange forthwith for publication of notice of receipt of the request in the Environmental Monitor. After reviewing the information submitted with the request for a variance and any other information submitted by any party within 21 days of the publication of the notice in the Environmental Monitor, the Director shall issue a written decision whether to grant the request.

10.71: Appeals of Alteration Permit Decisions

(1) Process. Within 21 days of the Director's decision under 321 CMR 10.66, 10.67, or 10.68, or failure to act under 321 CMR 10.66, record owners of lands or interests in lands aggrieved thereby may appeal by sending a notice of appeal to the Secretary of EOEA by certified mail. The Secretary shall hold a hearing on such appeal within a reasonable time, and in no case later than 120 days after such decision. The Secretary shall make a determination thereon within 60 days of the hearing.

(2) Standard of Review. The Secretary of EOEA shall overturn a decision of the Director only upon a finding that it was without substantial basis in fact, but shall fully examine on the merits any appeal involving the Director's failure to act under 321 CMR 10.66. For the purposes of 321 CMR 10.71, "without substantial basis in fact" shall mean:

(a) with respect to a permit denial, that there is no credible scientific information in the record to support the finding that the proposed alteration will reduce the Viability of the Significant Habitat; or

(b) with respect to the Director's conditioning of a permit, that there is no credible scientific information in the record that said conditions do not reasonably limit the proposed alteration's potential adverse effect on the Viability of the Significant Habitat.

10.72: Court Action

In addition to the procedures specified in 321 CMR 10.71, a landowner aggrieved by a decision of the Director may file an action in superior court department of the trial court to determine whether such decision constitutes an unconstitutional taking without compensation.

PART V: LISTS, DESIGNATED SIGNIFICANT HABITATS

10.90: List of Endangered, Threatened, and Special Concern Species

(1) Introduction. The list in 321 CMR 10.90 contains the names of all species of plants and animals which have been determined to be Endangered, Threatened, or of Special Concern pursuant to M.G.L. c. 131A and 321 CMR 10.03.

(2) List Format. The columns entitled "Common Name" and "Scientific Name" define the species listed. In the "Status" columns the following symbols are used: "E" for Endangered, "T" for Threatened, and "SC" for Special Concern. The status defined under the "MA" column denotes the official status of the species in Massachusetts pursuant to M.G.L. c.131A and 321 CMR 10.00. The status under the "US" column is the status of the species under the federal Endangered Species Act at the time of the latest revision of 321 CMR 10.00 and is given for informational purposes only. Recent changes in the federal list might not be reflected in 321 CMR 10.90. The U.S. Fish and Wildlife Service should be consulted for official and up to date information on the federal status of any species. Inquiries may be made by writing to U.S. Fish and Wildlife Service, 70 Commercial Street, Suite 300, Concord, NH 03301-5087. The "Taxonomic Family/ Taxonomic Group" column of the list is included for the purpose of organization. The "Notes" column directs the reader to footnotes which further define or clarify the status of a species or alternative names of species.

(3) Organization of the List. The list is generally organized according to the relationship of the listed species as determined by the science of taxonomy, which groups and categorizes species that are similar on the basis of shared evolutionary descent. The most basic division in the list is between animals and plants. Within animals the list is divided between vertebrates (animals with backbones) and invertebrates (animals without backbones). Within vertebrates, invertebrates, and plants the list is further divided into categories which are generally recognized, such as fish, mammals, dragonflies, and violets. All such information has no regulatory effect and is provided only for the purpose of organizing the list. The following outline shows the taxonomic categories used and their order. A species name index is provided after the list at 321 CMR 10.91 to assist the reader in finding species on the list.

10.90: continued

Outline of State List:

ANIMALS

Vertebrates

Fish

Amphibians

Reptiles

Birds

Mammals

Invertebrates

Sponges

Flatworms

Moss Animals

Segmented Worms

Snails

Mussels

Crustaceans

Dragonflies

Damselflies

Beetles

Butterflies and Moths

PLANTS

Aceraceae (Maples)

Adiantaceae (Cliff Ferns)...

through...(alphabetically by scientific family name)

Verbenaceae (Vervains)

Violaceae (Violets)

(4) The List. The Massachusetts List of Endangered, Threatened, and Special Concern species follows:

10.90: continued

## Massachusetts List of Endangered, Threatened, and Special Concern Species

## ANIMALS

Taxonomic Group	Common Name	Scientific Name	Status		
			MA	US	Notes
<b>VERTEBRATES:</b>					
<b>Fish</b>					
	American Brook Lamprey	<i>Lampetra appendix</i>	T		
	Shortnose Sturgeon	<i>Acipenser brevirostrum</i>	E	E	
	Atlantic Sturgeon	<i>Acipenser oxyrinchus</i>	E		
	Lake Chub	<i>Couesius plumbeus</i>	E		
	Eastern Silvery Minnow	<i>Hybognathus regius</i>	SC		
	Bridle Shiner	<i>Notropis bifrenatus</i>	SC		
	Northern Redbelly Dace	<i>Phoxinus eos</i>	E		
	Longnose Sucker	<i>Catostomus catostomus</i>	SC		
	Burbot	<i>Lota lota</i>	SC		
	Threespine Stickleback	<i>Gasterosteus aculeatus</i>	T		1
<b>Amphibians</b>					
	Jefferson Salamander	<i>Ambystoma jeffersonianum</i>	SC		2
	Blue-spotted Salamander	<i>Ambystoma laterale</i>	SC		3
	Marbled Salamander	<i>Ambystoma opacum</i>	T		
	Eastern Spadefoot	<i>Scaphiopus holbrookii</i>	T		
<b>Reptiles</b>					
	Loggerhead Seaturtle	<i>Caretta caretta</i>	T	T	
	Green Seaturtle	<i>Chelonia mydas</i>	T	T	
	Hawksbill Seaturtle	<i>Eretmochelys imbricata</i>	E	E	
	Kemp's's Ridley Seaturtle	<i>Lepidochelys kempii</i>	E	E	
	Leatherback Seaturtle	<i>Dermochelys coriacea</i>	E	E	
	Wood Turtle	<i>Glyptemys insculpta</i>	SC		
	Bog Turtle	<i>Glyptemys muhlenbergii</i>	E	T	
	Blanding's Turtle	<i>Emydoidea blandingii</i>	T		
	Diamond-backed Terrapin	<i>Malaclemys terrapin</i>	T		
	Northern Red-bellied Cooter	<i>Pseudemys rubriventris</i>	E	E	4
	Eastern Box Turtle	<i>Terrapene carolina</i>	SC		
	Eastern Wormsnake	<i>Carphophis amoenus</i>	T		
	Eastern Ratsnake	<i>Patherophis alleghaniensis</i>	E		
	Copperhead	<i>Agkistrodon contortrix</i>	E		
	Timber Rattlesnake	<i>Crotalus horridus</i>	E		

<sup>1</sup> Trimorphic freshwater population only.<sup>2</sup> Including triploid and other polyploid forms within the *Ambystoma jeffersonianum*/*Ambystoma laterale* complex.<sup>3</sup> Ditto.<sup>4</sup> This species is listed by the U.S. Fish & Wildlife Service as *P.r. bangsi* (Plymouth Redbelly Turtle) in 50 CFR 17.11.

E = Endangered, T = Threatened, SC = Special Concern

10.90: continued

## Massachusetts List of Endangered, Threatened, and Special Concern Species

## ANIMALS

Taxonomic Group	Common Name	Scientific Name	Status		
			MA	US	Notes
VERTEBRATES: continued					
Birds					
	Common Loon	<i>Gavia immer</i>	SC		
	Pied-billed Grebe	<i>Podilymbus podiceps</i>	E		
	Leach's Storm-petrel	<i>Oceanodroma leucorhoa</i>	E		
	American Bittern	<i>Botaurus lentiginosus</i>	E		
	Least Bittern	<i>Ixobrychus exilis</i>	E		
	Bald Eagle	<i>Haliaeetus leucocephalus</i>	T		
	Northern Harrier	<i>Circus cyaneus</i>	T		
	Sharp-shinned Hawk	<i>Accipiter striatus</i>	SC		
	Peregrine Falcon	<i>Falco peregrinus</i>	E		
	King Rail	<i>Rallus elegans</i>	T		
	Common Moorhen	<i>Gallinula chloropus</i>	SC		
	Piping Plover	<i>Charadrius melodus</i>	T	T	
	Upland Sandpiper	<i>Bartramia longicauda</i>	E		
	Roseate Tern	<i>Sterna dougallii</i>	E	E	
	Common Tern	<i>Sterna hirundo</i>	SC		
	Arctic Tern	<i>Sterna paradisaea</i>	SC		
	Least Tern	<i>Sternula antillarum</i>	SC		
	Barn Owl	<i>Tyto alba</i>	SC		
	Long-eared Owl	<i>Asio otus</i>	SC		
	Short-eared Owl	<i>Asio flammeus</i>	E		
	Sedge Wren	<i>Cistothorus platensis</i>	E		
	Golden-winged Warbler	<i>Vermivora chrysoptera</i>	E		
	Northern Parula	<i>Parula americana</i>	T		
	Blackpoll Warbler	<i>Dendroica striata</i>	SC		
	Mourning Warbler	<i>Oporornis philadelphia</i>	SC		
	Vesper Sparrow	<i>Pooecetes gramineus</i>	T		
	Grasshopper Sparrow	<i>Ammodramus savannarum</i>	T		
	Henslow's Sparrow	<i>Ammodramus henslowii</i>	E		
	Whip-poor-will	<i>Caprimulgus vociferus</i>	SC		
Mammals					
	Water Shrew	<i>Sorex palustris</i>	SC		
	Rock Shrew	<i>Sorex dispar</i>	SC		
	Indiana Bat	<i>Myotis sodalis</i>	E	E	
	Small-footed Myotis	<i>Myotis leibii</i>	E		
	Little Brown Myotis	<i>Myotis lucifugus</i>	E		
	Tricolored Bat	<i>Perimyotis subflavus</i>	E		
	Northern Long-eared Bat	<i>Myotis septentrionalis</i>	E		
	Southern Bog Lemming	<i>Synaptomys cooperi</i>	SC		
	Sperm Whale	<i>Physeter macrocephalus</i>	E	E	
	Fin Whale	<i>Balaenoptera physalus</i>	E	E	
	Sei Whale	<i>Balaenoptera borealis</i>	E	E	
	Blue Whale	<i>Balaenoptera musculus</i>	E	E	
	Humpback Whale	<i>Megaptera novaeangliae</i>	E	E	
	Northern Right Whale	<i>Eubalaena glacialis</i>	E	E	

E = Endangered, T = Threatened, SC = Special Concern

10.90: continued

## Massachusetts List of Endangered, Threatened, and Special Concern Species

## ANIMALS

Taxonomic Group	Common Name	Scientific Name	Status		
			MA	US	Notes
<b>INVERTEBRATES</b>					
<b>Sponges</b>					
	Smooth Branched Sponge	<i>Spongilla aspinosa</i>			SC
<b>Flatworms</b>					
	Sunderland Spring Planarian	<i>Polycelis remota</i>			E
<b>Segmented Worms</b>					
	New England Medicinal Leech	<i>Macrobdella sestertia</i>			SC
<b>Snails</b>					
	Walker's Limpet	<i>Ferrissia walkeri</i>			SC
	New England Siltsnail	<i>Floridobia winkleyi</i>			SC
	Coastal Marsh Snail	<i>Littoridinops tenuipes</i>			SC
	Slender Walker	<i>Pomatiopsis lapidaria</i>			E
	Boreal Marstonia	<i>Marstonia lustrica</i>			E
	Boreal Turret Snail	<i>Valvata sincera</i>			E
<b>Mussels</b>					
	Dwarf Wedgemussel	<i>Alasmidonta heterodon</i>	E	E	
	Swollen Wedgemussel	<i>Alasmidonta varicosa</i>	E		
	Yellow Lampmussel	<i>Lampsilis cariosa</i>	E		
	Tidewater Mucket	<i>Leptodea ochracea</i>			SC
	Eastern Pondmussel	<i>Ligumia nasuta</i>			SC
	Creeper	<i>Strophitus undulatus</i>			SC
<b>Crustaceans</b>					
	Intricate Fairy Shrimp	<i>Eubbranchipus intricatus</i>			SC
	Agassiz's Clam Shrimp	<i>Eulimnadia agassizii</i>			E
	Northern Spring Amphipod	<i>Gammarus pseudolimnaeus</i>			SC
	American Clam Shrimp	<i>Limnadia lenticularis</i>			SC
	Taconic Cave Amphipod	<i>Stygobromus borealis</i>			E
	Piedmont Groundwater Amphipod	<i>Stygobromus tenuis tenuis</i>			SC
	Coastal Swamp Amphipod	<i>Synurella chamberlaini</i>			SC
<b>Dragonflies</b>					
	Subarctic Darner	<i>Aeshna subarctica</i>			E
	Comet Darner	<i>Anax longipes</i>			SC
	Ocellated Darner	<i>Boyeria grafiana</i>			SC
	Spine-crowned Clubtail	<i>Gomphus abbreviatus</i>			SC
	Harpoon Clubtail	<i>Gomphus descriptus</i>			E

E = Endangered, T = Threatened, SC = Special Concern

10.90: continued

## Massachusetts List of Endangered, Threatened, and Special Concern Species

## ANIMALS

Taxonomic Group	Common Name	Scientific Name	Status		
			MA	US	Notes

## INVERTEBRATES: continued

## Dragonflies: continued

Midland Clubtail	<i>Gomphus fraternus</i>	E		
Rapids Clubtail	<i>Gomphus quadricolor</i>	E		
Cobra Clubtail	<i>Gomphus vastus</i>	SC		
Skillet Clubtail	<i>Gomphus ventricosus</i>	T		
Umber Shadowdragon	<i>Neurocordulia obsoleta</i>	SC		
Stygian Shadowdragon	<i>Neurocordulia yamaskanensis</i>	SC		
Brook Snaketail	<i>Ophiogomphus aspersus</i>	SC		
Riffle Snaketail	<i>Ophiogomphus carolus</i>	T		
Spatterdock Darner	<i>Rhionaeschna mutata</i>	SC		
Ski-tipped Emerald	<i>Somatochlora elongata</i>	SC		
Forcipate Emerald	<i>Somatochlora forcipata</i>	E		
Coppery Emerald	<i>Somatochlora georgiana</i>	E		
Incurvate Emerald	<i>Somatochlora incurvata</i>	E		
Kennedy's Emerald	<i>Somatochlora kennedyi</i>	E		
Mocha Emerald	<i>Somatochlora linearis</i>	SC		
Riverine Clubtail	<i>Stylurus amnicola</i>	E		
Ebony Boghaunter	<i>Williamsonia fletcheri</i>	E		
Ringed Boghaunter	<i>Williamsonia lintneri</i>	T		

## Damselflies

Tule Bluet	<i>Enallagma carunculatum</i>	SC		
Attenuated Bluet	<i>Enallagma daeckii</i>	T		
Scarlet Bluet	<i>Enallagma pictum</i>	T		
Pine Barrens Bluet	<i>Enallagma recurvatum</i>	T		

## Beetles

Twelve-spotted Tiger Beetle	<i>Cicindela duodecimguttata</i>	SC		
Hentz's Redbelly Tiger Beetle	<i>Cicindela rufiventris hentzii</i>	T		
Northeastern Beach Tiger Beetle	<i>Cicindela dorsalis dorsalis</i>	E	T	
Bank Tiger Beetle	<i>Cicindela limbalis</i>	SC		
Cobblestone Tiger Beetle	<i>Cicindela marginipennis</i>	E		
Barrens Tiger Beetle	<i>Cicindela patruela</i>	E		
Puritan Tiger Beetle	<i>Cicindela puritana</i>	E	T	
Purple Tiger Beetle	<i>Cicindela purpurea</i>	SC		
American Burying Beetle	<i>Nicrophorus americanus</i>	E	E	

## Butterflies and Moths

Coastal Heathland Cutworm	<i>Abagrotis nefascia</i>	SC		
Barrens Daggermoth	<i>Acrionicta albarufa</i>	T		
Drunk Apamea Moth	<i>Apamea inebriata</i>	SC		
New Jersey Tea Inchworm	<i>Apodrepanulatrix liberaria</i>	E		
Hessel's Hairstreak	<i>Callophrys hesseli</i>	SC		
Frosted Elfin	<i>Callophrys irus</i>	SC		
Bog Elfin	<i>Callophrys lanoraieensis</i>	T		

E = Endangered, T = Threatened, SC = Special Concern

10.90: continued

## Massachusetts List of Endangered, Threatened, and Special Concern Species

## ANIMALS

Taxonomic Group Common Name	Scientific Name	Status		
		MA	US	Notes
INVERTEBRATES: continued				
Butterflies and Moths: continued				
Gerhard's Underwing	<i>Catocala herodias gerhardi</i>	SC		
Precious Underwing Moth	<i>Catocala pretiosa pretiosa</i>	E		
Waxed Sallow Moth	<i>Chaetagnlaea cerata</i>	SC		
Melsheimer's Sack Bearer	<i>Cicinnus melsheimeri</i>	T		
Chain Dot Geometer	<i>Cingilia catenaria</i>	SC		
Unexpected Cynia	<i>Cynia inopinatus</i>	T		
Three-lined Angle Moth	<i>Digrammia eremiata</i>	T		
Imperial Moth	<i>Eacles imperialis</i>	T		
Early Hairstreak	<i>Erora laeta</i>	T		
Persius Duskywing	<i>Erynnis persius persius</i>	E		
Sandplain Euchlaena	<i>Euchlaena madusaria</i>	SC		
Dion Skipper	<i>Euphyes dion</i>	T		
The Pink Streak	<i>Dargida rubripennis</i>	T		
Phyllira Tiger Moth	<i>Grammia phyllira</i>	E		
Slender Clearwing Sphinx Moth	<i>Hemaris gracilis</i>	SC		
Barrens Buckmoth	<i>Hemileuca maia</i>	SC		
Buchholz's Gray	<i>Hypomecis buchholzaria</i>	E		
Pine Barrens	<i>Speranza (Speranza exonerata)</i>	SC		
Pale Green Pinion Moth	<i>Lithophane viridipallens</i>	SC		
Twilight Moth	<i>Lycia rachelae</i>	E		
Pine Barrens Lycia	<i>Lycia ypsilon</i>	T		
Barrens Metarranthis	<i>Metarranthis apiciaria</i>	E		
Coastal Swamp Metarranthis	<i>Metarranthis pilosaria</i>	SC		
Northern Brocade Moth	<i>Neoligia semicana</i>	SC		
Dune Noctuid Moth	<i>Sympistis riparia</i>	SC		
Pitcher Plant Borer	<i>Papaipema appassionata</i>	T		
Ostrich Fern Borer	<i>Papaipema sp. 2</i>	SC		1
Chain Fern Borer	<i>Papaipema stenocelis</i>	T		
Water-willow Stem Borer	<i>Papaipema sulphurata</i>	T		
Mustard White	<i>Pieris oleracea</i>	T		
Pink Sallow Moth	<i>Psectraglaea carnosa</i>	SC		
Southern Ptichodis	<i>Ptichodis bistrigata</i>	T		
Orange Sallow Moth	<i>Pyrrhia aurantiago</i>	SC		
Oak Hairstreak	<i>Satyrium favonius</i>	SC		
Spartina Borer	<i>Photedes inops</i>	SC		
Faded Gray Geometer	<i>Stenoporpia polygrammaria</i>	T		
Pine Barrens Zale	<i>Zale lunifera</i>	SC		2
Sandplain Heterocampa	<i>Heterocampa varia</i>	T		
Pine Barrens Zanclognatha	<i>Zanclognatha martha</i>	T		

<sup>1</sup> Undescribed species near *P. pterisii*

<sup>2</sup> True *Z. lunifera*, *sensu* Schmidt (2010). Taxonomic Reassessment of *Zale lunifera* (Hubner) (*Erebidae, Erebiniae*). *Zookeys* 39:99-106

10.90: continued

## Massachusetts List of Endangered, Threatened, and Special Concern Species

## PLANTS

Taxonomic Family	Common Name	Scientific Name	Status		
			MA	US	Notes
Adiantaceae (Cliff Ferns)	Fragile Rock-brake	<i>Cryptogramma stelleri</i>		E	
Alismataceae (Arrowheads)	Estuary Arrowhead	<i>Sagittaria montevidensis</i> ssp. <i>spongiosa</i>		E	
	Wapato	<i>Sagittaria cuneata</i>		T	
	Terete Arrowhead	<i>Sagittaria teres</i>		SC	
Apiaceae (Parsleys, Angelicas)	Hemlock Parsley	<i>Conioselinum chinense</i>		SC	
	Saltpond Pennywort	<i>Hydrocotyle verticillata</i>		T	
	Canadian Sanicle	<i>Sanicula canadensis</i>		T	
	Long-styled Sanicle	<i>Sanicula odorata</i>		T	
Aquifoliaceae (Hollies)	Mountain Winterberry	<i>Ilex montana</i>		E	
Araceae (Arums)	Green Dragon	<i>Arisaema dracontium</i>		T	
	Golden Club	<i>Orontium aquaticum</i>		E	
Araliaceae (Ginsengs)	Ginseng	<i>Panax quinquefolius</i>		SC	
Asclepiadaceae (Milkweeds)	Purple Milkweed	<i>Asclepias purpurascens</i>		E	
	Linear-leaved Milkweed	<i>Asclepias verticillata</i>		T	
Aspleniaceae (Spleenworts)	Mountain Spleenwort	<i>Asplenium montanum</i>		E	
	Wall-rue Spleenwort	<i>Asplenium ruta-muraria</i>		T	
Asteraceae (Asters, Composites)	Lesser Snakeroot	<i>Ageratina aromatica</i>		E	
	Eaton's Beggar-ticks	<i>Bidens eatonii</i>		E	
	Estuary Beggar-ticks	<i>Bidens hyperborea</i>		E	
	Cornel-leaved Aster	<i>Doellingeria infirma</i>		E	
	New England Boneset	<i>Eupatorium novae-angliae</i>		E	
	Purple Cudweed	<i>Gamochaeta purpurea</i>		E	
	New England Blazing Star	<i>Liatris scariosa</i> var. <i>novae-angliae</i>		SC	

E = Endangered, T = Threatened, SC = Special Concern

10.90: continued

## Massachusetts List of Endangered, Threatened, and Special Concern Species

## PLANTS

Taxonomic Family Common Name	Scientific Name	Status		
		MA	US	Notes
Asteraceae (Asters, Composites): continued				
Lion's Foot	<i>Nabalus serpentarius</i>		E	
Sweet Coltsfoot	<i>Petasites frigidus</i> var. <i>palmatus</i>		E	
Sclerolepis	<i>Sclerolepis uniflora</i>		E	
Large-leaved Goldenrod	<i>Solidago macrophylla</i>		T	
Upland White Aster	<i>Oligoneuron album</i>		E	
Rand's Goldenrod	<i>Solidago simplex</i> ssp. <i>randii</i> var. <i>monticola</i>		E	
Eastern Silvery Aster	<i>Symphyotrichum concolor</i>		E	
Crooked-stem Aster	<i>Symphyotrichum prenanthoides</i>		SC	
Tradescant's Aster	<i>Symphyotrichum tradescantii</i>		T	
Betulaceae (Birches, Alders)				
Mountain Alder	<i>Alnus viridis</i> ssp. <i>crispa</i>		T	
Swamp Birch	<i>Betula pumila</i>		E	
Boraginaceae (Borages)				
Northern Wild Comfrey	<i>Cynoglossum virginianum</i> var. <i>boreale</i>		E	
Oysterleaf	<i>Mertensia maritima</i>		E	
Brassicaceae (Mustards)				
Lyre-leaved Rock-cress	<i>Arabidopsis lyrata</i>		E	
Smooth Rock-cress	<i>Boechera laevigata</i>		SC	
Green Rock-cress	<i>Boechera missouriensis</i>		T	
Purple Cress	<i>Cardamine douglassii</i>		E	
Long's Bitter-cress	<i>Cardamine longii</i>		E	
Fen Cuckoo Flower	<i>Cardamine dentata</i>		T	
Cactaceae (Cacti)				
Prickly Pear	<i>Opuntia humifusa</i>		E	
Campanulaceae (Bluebells, Lobelias)				
Great Blue Lobelia	<i>Lobelia siphilitica</i>		E	
Caprifoliaceae (Honeysuckles)				
Hairy Honeysuckle	<i>Lonicera hirsuta</i>		E	
Snowberry	<i>Symphoricarpos albus</i> var. <i>albus</i>		E	
Broad Tinker's-weed	<i>Triosteum perfoliatum</i>		E	
Downy Arrowwood	<i>Viburnum rafinesquianum</i>		E	
Caryophyllaceae (Pinks, Sandworts)				
Nodding Chickweed	<i>Cerastium nutans</i>		E	
Michaux's Sandwort	<i>Minuartia michauxii</i>		T	
Large-leaved Sandwort	<i>Moehringia macrophylla</i>		E	
Silverling	<i>Paronychia argyrocoma</i>		E	
Celastraceae (Staff Tree Family)				
American Bittersweet	<i>Celastrus scandens</i>		T	
Chenopodiaceae (Saltworts)				
Fogg's Goosefoot	<i>Chenopodium foggii</i>		E	
American Sea-blite	<i>Suaeda calceoliformis</i>		SC	

E = Endangered, T = Threatened, SC = Special Concern

10.90: continued

## Massachusetts List of Endangered, Threatened, and Special Concern Species

## PLANTS

Taxonomic Family Common Name	Scientific Name	Status		
		MA	US	Notes
Cistaceae (Rockroses, Pinweeds)				
Bushy Rockrose	<i>Crocianthemum dumosum</i>			SC
Beaded Pinweed	<i>Lechea pulchella</i> var. <i>moniliformis</i>			E
Clusiaceae (St. John's-worts)				
Creeping St. John's-wort	<i>Hypericum adpressum</i>			T
Giant St. John's-wort	<i>Hypericum ascyron</i>			E
St. Andrew's Cross	<i>Hypericum stragulum</i>			E
Convolvulaceae (Morning Glories)				
Low Bindweed	<i>Calystegia spithamea</i>			E
Crassulaceae (Sedums)				
Pygmyweed	<i>Crassula aquatica</i>			T
Cupressaceae (Cedars, Junipers)				
Arborvitae	<i>Thuja occidentalis</i>			E
Cyperaceae (Sedges)				
Foxtail Sedge	<i>Carex alopecoidea</i>			T
Back's Sedge	<i>Carex backii</i>			E
Bailey's Sedge	<i>Carex baileyi</i>			T
Bush's Sedge	<i>Carex bushii</i>			E
Chestnut-colored Sedge	<i>Carex castanea</i>			E
Creeping Sedge	<i>Carex chordorrhiza</i>			E
Davis' Sedge	<i>Carex davisii</i>			E
Handsome Sedge	<i>Carex formosa</i>			T
Glaucous Sedge	<i>Carex glaucoidea</i>			E
Slender Woodland Sedge	<i>Carex gracilescens</i>			E
Gray's Sedge	<i>Carex grayi</i>			T
Hitchcock's Sedge	<i>Carex hitchcockiana</i>			SC
Shore Sedge	<i>Carex lenticularis</i>			T
Glaucous Sedge	<i>Carex livida</i>			E
False Hop-sedge	<i>Carex lupuliformis</i>			E
Midland Sedge	<i>Carex mesochorea</i>			E
Michaux's Sedge	<i>Carex michauxiana</i>			E
Mitchell's Sedge	<i>Carex mitchelliana</i>			T
Rich Woods Sedge	<i>Carex oligocarpa</i>			T
Few-seeded Sedge	<i>Carex oligosperma</i>			E
Few-flowered Sedge	<i>Carex pauciflora</i>			E
Variable Sedge	<i>Carex polymorpha</i>			E
Schweinitz's Sedge	<i>Carex schweinitzii</i>			E
Dioecious Sedge	<i>Carex sterilis</i>			T
Walter's Sedge	<i>Carex striata</i>			E
Fen Sedge	<i>Carex tetanica</i>			SC
Hairy-fruited Sedge	<i>Carex trichocarpa</i>			SC
Tuckerman's Sedge	<i>Carex Tuckermanii</i>			E
Cat-tail Sedge	<i>Carex typhina</i>			T
Engelmann's Umbrella-sedge	<i>Cyperus engelmannii</i>			T
Houghton's Flatsedge	<i>Cyperus houghtonii</i>			E

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10.90: continued

## Massachusetts List of Endangered, Threatened, and Special Concern Species

## PLANTS

Taxonomic Family Common Name	Scientific Name	Status		
		MA	US	Notes
Cyperaceae (Sedges): continued				
Wright's Spike-rush	<i>Eleocharis diandra</i>	E		
Intermediate Spike-sedge	<i>Eleocharis intermedia</i>	T		
Tiny-fruited Spike-sedge	<i>Eleocharis microcarpa</i> var. <i>filiculmis</i>	E		
Ovate Spike-sedge	<i>Eleocharis ovata</i>	E		
Few-flowered Spike-sedge	<i>Eleocharis quinqueflora</i>	E		
Three-angled Spike-sedge	<i>Eleocharis tricostata</i>	E		
Slender Cottongrass	<i>Eriophorum gracile</i>	T		
Dwarf Bulrush	<i>Lipocarpa micrantha</i>	T		
Capillary Beak-sedge	<i>Rhynchospora capillacea</i>	E		
Inundated Horned-sedge	<i>Rhynchospora inundata</i>	T		
Short-beaked Bald-sedge	<i>Rhynchospora nitens</i>	T		
Long-beaked Bald-sedge	<i>Rhynchospora scirpoides</i>	SC		
Torrey's Beak-sedge	<i>Rhynchospora torreyana</i>	E		
Northeastern Bulrush	<i>Scirpus ancistrochaetus</i>	E	E	
Long's Bulrush	<i>Scirpus longii</i>	T		
Papillose Nut-sedge	<i>Scleria pauciflora</i>	E		1
Tall Nut-sedge	<i>Scleria triglomerata</i>	E		
Dryopteridaceae (Wood Ferns)				
Braun's Holly-fern	<i>Polystichum braunii</i>	E		
Smooth Woodsia	<i>Woodsia glabella</i>	E		
Elatinaceae (Waterworts)				
American Waterwort	<i>Elatine americana</i>	E		
Empetraceae (Crowberries)				
Equisetaceae (Horsetails)				
Dwarf Scouring-rush	<i>Equisetum scirpoides</i>			SC
Ericaceae (Laurels, Blueberries)				
Great Laurel	<i>Rhododendron maximum</i>	T		
Mountain Cranberry	<i>Vaccinium vitis-idaea</i> ssp. <i>minus</i>	E		
Eriocaulaceae (Pipeworts)				
Parker's Pipewort	<i>Eriocaulon parkeri</i>	E		
Fabaceae (Beans, Peas, Clovers)				
Large-bracted Tick-trefoil	<i>Desmodium cuspidatum</i>	T		
Wild Senna	<i>Senna hebecarpa</i>	E		
Fagaceae (Oaks, Beeches)				
Bur Oak	<i>Quercus macrocarpa</i>			SC
Yellow Oak	<i>Quercus muhlenbergii</i>	T		
Fumariaceae (Fumitories)				
Climbing Fumitory	<i>Adlumia fungosa</i>			SC

<sup>1</sup> Includes the two varieties of this species that occur in Massachusetts: *s. p.* var. *pauciflora* and *s. p.* var. *caroliniana*

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10.90: continued

## Massachusetts List of Endangered, Threatened, and Special Concern Species

## PLANTS

Taxonomic Family	Common Name	Scientific Name	Status		
			MA	US	Notes
Gentianaceae (Gentians)					
	Andrew's Bottle Gentian	<i>Gentiana andrewsii</i>	E		
	Spurred Gentian	<i>Halenia deflexa</i>	E		
	Slender Marsh Pink	<i>Sabatia campanulata</i>	E		
	Plymouth Gentian	<i>Sabatia kennedyana</i>	SC		
	Sea Pink	<i>Sabatia stellaris</i>	E		
Grossulariaceae (Currants)					
	Bristly Black Currant	<i>Ribes lacustre</i>	SC		
Haemodoraceae (Redroots)					
	Redroot	<i>Lachnanthes caroliana</i>	SC		
Haloragaceae (Water-milfoils)					
	Alternate-flowered Water-milfoil	<i>Myriophyllum alterniflorum</i>	E		
	Farwell's Water-milfoil	<i>Myriophyllum farwellii</i>	E		
	Pinnate Water-milfoil	<i>Myriophyllum pinnatum</i>	SC		
	Comb Water-milfoil	<i>Myriophyllum verticillatum</i>	E		
Hydrophyllaceae (Waterleaves)					
	Broad Waterleaf	<i>Hydrophyllum canadense</i>	E		
Hymenophyllaceae (Filmy-ferns)					
	Appalachian Bristle-fern	<i>Trichomanes intricatum</i>	E		
Iridaceae (Irises)					
	Sandplain Blue-eyed Grass	<i>Sisyrinchium fuscatum</i>	SC		
	Slender Blue-eyed Grass	<i>Sisyrinchium mucronatum</i>	E		
Isoetaceae (Quillworts)					
	Acadian Quillwort	<i>Isoetes acadensis</i>	E		
	Lake Quillwort	<i>Isoetes lacustris</i>	E		
Juncaceae (Rushes)					
	Weak Rush	<i>Juncus debilis</i>	E		
	Thread Rush	<i>Juncus filiformis</i>	E		
	Black-fruited Woodrush	<i>Luzula parviflora</i> ssp. <i>melanocarpa</i>	E		
Lamiaceae (Mints)					
	Purple Giant-hyssop	<i>Agastache scrophulariifolia</i>	E		
	Downy Wood-mint	<i>Blephilia ciliata</i>	E		
	Hairy Wood-mint	<i>Blephilia hirsuta</i>	E		
	Gypsywort	<i>Lycopus rubellus</i>	E		
	False Pennyroyal	<i>Trichostema brachiatum</i>	E		

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10.90: continued

## Massachusetts List of Endangered, Threatened, and Special Concern Species

## PLANTS

Taxonomic Family Common Name	Scientific Name	Status		
		MA	US	Notes
Lentibulariaceae (Bladderworts)				
Resupinate Bladderwort	<i>Utricularia resupinata</i>	T		
Subulate Bladderwort	<i>Utricularia subulata</i>	SC		
Liliaceae (Lilies)				
Devil's-bit	<i>Chamaelirium luteum</i>	E		
Linaceae (Flaxes)				
Sandplain Flax	<i>Linum intercursum</i>	SC		
Rigid Flax	<i>Linum medium var. texanum</i>	T		
Lycopodiaceae (Clubmosses)				
Foxtail Clubmoss	<i>Lycopodiella alopecuroides</i>	E		
Appalachian Firmoss	<i>Huperzia appressa</i>	E		
Mountain Firmoss	<i>Huperzia selago</i>	E		
Lythraceae (Loosestrifes)				
Toothcup	<i>Rotala ramosior</i>	E		
Magnoliaceae (Magnolias)				
Sweetbay Magnolia	<i>Magnolia virginiana</i>	E		
Melastomataceae (Meadow Beauties)				
Maryland Meadow Beauty	<i>Rhexia mariana</i>	E		
Moraceae (Mulberries)				
Red Mulberry	<i>Morus rubra</i>	E		
Nymphaeaceae (Water Lilies)				
Tiny Cow-lily	<i>Nuphar microphylla</i>	E		
Onagraceae (Evening Primroses)				
Many-fruited False-loosestrife	<i>Ludwigia polycarpa</i>	E		
Round-fruited False-loosestrife	<i>Ludwigia sphaerocarpa</i>	E		
Ophioglossaceae (Grape Ferns)				
Adder's-tongue Fern	<i>Ophioglossum pusillum</i>	T		
Orchidaceae (Orchids)				
Putty-root	<i>Aplectrum hyemale</i>	E		
Arethusa	<i>Arethusa bulbosa</i>	T		
Autumn Coralroot	<i>Corallorhiza odontorhiza</i>	SC		
Ram's-head Lady's-slipper	<i>Cypripedium arietinum</i>	E		

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10.90: continued

## Massachusetts List of Endangered, Threatened, and Special Concern Species

## PLANTS

Taxonomic Family Common Name	Scientific Name	Status		
		MA	US	Notes
Orchidaceae (Orchids): continued				
Small Yellow Lady's-slipper	<i>Cypripedium parviflorum</i> var. <i>makasin</i>	E		
Showy Lady's-slipper	<i>Cypripedium reginae</i>	E		
Dwarf Rattlesnake-plantain	<i>Goodyera repens</i>	E		
Small Whorled Pogonia	<i>Isotria medeoloides</i>	E	T	
Lily-leaf Twayblade	<i>Liparis liliifolia</i>	T		
Heartleaf Twayblade	<i>Listera cordata</i>	E		
Bayard's Green Adder's-mouth	<i>Malaxis bayardii</i>	E		
White Adder's-mouth	<i>Malaxis monophyllos</i> var. <i>brachypoda</i>	E		
Crested Fringed Orchis	<i>Platanthera cristata</i>	E		
Leafy White Orchis	<i>Platanthera dilatata</i>	T		
Pale Green Orchis	<i>Platanthera flava</i> var. <i>herbiola</i>	T		
Hooded Ladies'-tresses	<i>Spiranthes romanzoffiana</i>	E		
Grass-leaved Ladies'-tresses	<i>Spiranthes vernalis</i>	T		
Cranefly Orchid	<i>Tipularia discolor</i>	E		
Nodding Pogonia	<i>Triphora trianthophora</i>	E		
Oxalidaceae (Wood-sorrels)				
Violet Wood-sorrel	<i>Oxalis violacea</i>	E		
Poaceae (Grasses)				
Annual Peanutgrass	<i>Amphicarpum amphicarpon</i>	E		
Purple Needlegrass	<i>Aristida purpurascens</i>	T		
Seabeach Needlegrass	<i>Aristida tuberculosa</i>	T		
Reed Bentgrass	<i>Calamagrostis pickeringii</i>	E		
New England Northern Reed Grass	<i>Calamagrostis stricta</i> ssp. <i>inexpansa</i>	E		
Tufted Hairgrass	<i>Deschampsia cespitosa</i> var. <i>glauca</i>	E		
Commons's Panic-grass	<i>Dichanthelium ovale</i> ssp. <i>pseudopubescens</i>	SC		
Mattamuskeet Panic-grass	<i>Dichanthelium dichotomum</i> ssp. <i>mattamuskeetense</i>	E		
Rough Panic-grass	<i>Dichanthelium scabriusculum</i>	T		
Wright's Panic-grass	<i>Dichanthelium wrightianum</i>	SC		
Hairy Wild Rye	<i>Elymus villosus</i>	E		
Frank's Lovegrass	<i>Eragrostis frankii</i>	SC		
Saltpond Grass	<i>Leptochloa fusca</i> ssp. <i>fascicularis</i>	T		
Sea Lyme-grass	<i>Leymus mollis</i>	E		
Woodland Millet	<i>Milium effusum</i>	T		
Gattinger's Panic-grass	<i>Panicum philadelphicum</i> ssp. <i>gattingeri</i>	SC		
Long-leaved Panic-grass	<i>Panicum rigidulum</i> ssp. <i>pubescens</i>	T		
Philadelphia Panic-grass	<i>Panicum philadelphicum</i> ssp. <i>philadelphicum</i>	SC		
Drooping Speargrass	<i>Poa saltuensis</i> ssp. <i>languida</i>	E		
Bristly Foxtail	<i>Setaria parviflora</i>	SC		
Salt Reedgrass	<i>Spartina cynosuroides</i>	T		
Shining Wedgegrass	<i>Sphenopholis nitida</i>	T		
Swamp Oats	<i>Sphenopholis pennsylvanica</i>	T		
Small Dropseed	<i>Sporobolus neglectus</i>	E		
Northern Gama-grass	<i>Tripsacum dactyloides</i>	E		
Spiked False-oats	<i>Trisetum spicatum</i>	E		

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10.90: continued

## Massachusetts List of Endangered, Threatened, and Special Concern Species

## PLANTS

Taxonomic Family Common Name	Scientific Name	Status		
		MA	US	Notes
Polygonaceae (Docks, Knotweeds)				
Strigose Knotweed	<i>Persicaria setacea</i>		T	
Sea-beach Knotweed	<i>Polygonum glaucum</i>		SC	
Pondshore Knotweed	<i>Persicaria puritanorum</i>		SC	
Seabeach Dock	<i>Rumex pallidus</i>		T	
Swamp Dock	<i>Rumex verticillatus</i>		T	
Portulacaceae (Spring Beauties)				
Narrow-leaved Spring Beauty	<i>Claytonia virginica</i>		E	
Potamogetonaceae (Pondweeds)				
Algae-like Pondweed	<i>Potamogeton confervoides</i>		T	
Fries' Pondweed	<i>Potamogeton friesii</i>		E	
Hill's Pondweed	<i>Potamogeton hillii</i>		SC	
Ogden's Pondweed	<i>Potamogeton ogdenii</i>		E	
Straight-leaved Pondweed	<i>Potamogeton strictifolius</i>		E	
Vasey's Pondweed	<i>Potamogeton vaseyi</i>		E	
Pyrolaceae (Shinleaf)				
Pink Pyrola	<i>Pyrola asarifolia</i> ssp. <i>asarifolia</i>		E	
Ranunculaceae (Buttercups)				
Black Cohosh	<i>Actaea racemosa</i>		E	
Purple Clematis	<i>Clematis occidentalis</i>		SC	
Golden Seal	<i>Hydrastis canadensis</i>		E	
Tiny-flowered Buttercup	<i>Ranunculus micranthus</i>		E	
Bristly Buttercup	<i>Ranunculus pensylvanicus</i>		SC	
Rosaceae (Roses, Shadbushes)				
Small-flowered Agrimony	<i>Agrimonia parviflora</i>		E	
Hairy Agrimony	<i>Agrimonia pubescens</i>		T	
Bartram's Shadbush	<i>Amelanchier bartramiana</i>		T	
Roundleaf Shadbush	<i>Amelanchier sanguinea</i>		SC	
Bicknell's Hawthorn	<i>Crataegus bicknellii</i>		E	
Sandbar Cherry	<i>Prunus pumila</i> var. <i>depressa</i>		T	
Northern Prickly Rose	<i>Rosa acicularis</i> ssp. <i>sayi</i>		E	
Northern Mountain-ash	<i>Sorbus decora</i>		E	
Barren Strawberry	<i>Geum fragarioides</i>		SC	
Rubiaceae (Bedstraws, Bluets)				
Northern Bedstraw	<i>Galium boreale</i>		E	
Labrador Bedstraw	<i>Galium labradoricum</i>		T	
Long-leaved Bluet	<i>Houstonia longifolia</i>		E	
Salicaceae (Willows)				
Swamp Cottonwood	<i>Populus heterophylla</i>		E	
Sandbar Willow	<i>Salix exigua</i> ssp. <i>interior</i>		T	

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10.90: continued

## Massachusetts List of Endangered, Threatened, and Special Concern Species

## PLANTS

Taxonomic Family Common Name	Scientific Name	Status		
		MA	US	Notes
Scheuchzeriaceae (Pod-grasses) Pod-grass	<i>Scheuchzeria palustris</i>	E		
Schizaeaceae (Climbing Ferns) Climbing Fern	<i>Lygodium palmatum</i>	SC		
Scrophulariaceae (Figworts) Sandplain Gerardia	<i>Agalinis acuta</i>	E	E	
Winged Monkey-flower	<i>Mimulus alatus</i>	E		
Muskflower	<i>Mimulus moschatus</i>	E		
Swamp Lousewort	<i>Pedicularis lanceolata</i>	E		
Hairy Beardtongue	<i>Penstemon hirsutus</i>	E		
Sessile Water-speedwell	<i>Veronica catenata</i>	E		
Culver's-root	<i>Veronicastrum virginicum</i>	T		
Sparganiaceae (Bur-reeds) Small Bur-reed	<i>Sparganium natans</i>	E		
Verbenaceae (Vervains) Narrow-leaved Vervain	<i>Verbena simplex</i>	E		
Violaceae (Violets) Sand Violet	<i>Viola adunca</i>	SC		
Britton's Violet	<i>Viola brittoniana</i>	T		
Viscaceae (Christmas-mistletoes) Dwarf Mistletoe	<i>Arceuthobium pusillum</i>	SC		

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10.91: Index to State Listed Species

The following index is intended to help users of the state list of Endangered, Threatened, and Special Concern species determine the official status of any species listed under MESA. This is particularly important for users of the list who are not familiar with the scientific names of species. Starting with only a common or scientific name, the index tells the user where to find the species on the list. The index accomplishes this by specifying the name of the animal group or plant family under which the species will be found.

For example, to find the status of *Acipenser brevirostrum*, one would look up "Acipenser" in the index and find that it is a fish. Where fish occur in the list is specified by the outline appearing just before the list at 321 CMR 10.90(3). The outline shows that fish is the first category of vertebrate animals. By looking for "Acipenser brevirostrum" in that section of the list one would determine that it is the "Shortnose Sturgeon" and is listed as an Endangered species on both the state and federal lists.

Note that all plants are found under plant families which end with "-aceae" and that animals are listed under commonly known categories, such as birds, mammals, or butterflies.

## Index to State Listed Species

Abagrotis, Butterflies and Moths	Bartramia, Birds
Accipiter, Birds	Beak-sedge, Cyperaceae
Acer, Aceraceae	Beardtongue, Scropholariaceae
Acipenser, Fish	Bedstraw, Rubiaceae
Acronicta, Butterflies and Moths	Beetle, Beetles
Actaea, Ranunculaceae	Beggar-ticks, Asteraceae
Adder's-mouth, Orchidaceae	Betula, Betulaceae
Adlumia, Fumariaceae	Bidens, Asteraceae
Aeshna, Dragonflies	Bindweed, Convolvulaceae
Agalinis, Scrophulariaceae	Birch, Betulaceae
Agastache, Lamiaceae	Bitter-cress, Brassicaceae
Ageratina, Asteraceae	Bittern, Birds
Agkistrodon, Reptiles	Bladderwort, Lentibulariaceae
Agrimonia, Rosaceae	Blazing Star, Asteraceae
Agrimony, Rosaceae	Blephilia, Lamiaceae
Alasmidonta, Mussels	Blue-eyed Grass, Iridaceae
Alder, Betulaceae	Bluet, Rubiaceae
Alnus, Betulaceae	Bluet, Damselflies
Ambystoma, Amphibians	Boechera, Brassicaceae
Amelanchier, Rosaceae	Boghaunter, Dragonflies
Ammodramus, Birds	Bolboschoenus, Cyperaceae
Amphicarpum, Poaceae	Boneset, Asteraceae
Amphipod, Crustaceans	Borer, Butterflies and Moths
Anax, Dragonflies	Botaurus, Birds
Annelids, Segmented Worms	Boyeria, Dragonflies
Apamea, Butterflies and Moths	Bristle-fern, Hymenophyllaceae
Aplectrum, Orchidaceae	Bryozoans, Moss Animals
Apodrepanulatrix, Butterflies and Moths	Buckmoth, Butterflies and Moths
Arabidopsis, Brassicaceae	Bulrush, Cyperaceae
Arborvitae, Cupressaceae	Bur-reed, Sparganiaceae
Arceuthobium, Viscaceae	Burbot, Fish
Arethusa, Orchidaceae	Buttercup, Ranunculaceae
Arisaema, Araceae	Calamagrostis, Poaceae
Aristida, Poaceae	Callophrys, Butterflies and Moths
Arrowhead, Alismataceae	Calystegia, Convolvulaceae
Arrowwood, Caprifoliaceae	Cardamine, Brassicaceae
Asclepias, Asclepiadaceae	Caretta, Reptiles
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Aster, Asteraceae	Catocala, Butterflies and Moths
Bagisara, Butterflies and Moths	
Balaenoptera, Mammals	
Bald-sedge, Cyperaceae	
Barn-owl, Birds	

10.91: continued

## Index to State Listed Species

Catostomus, Fish  
 Cerastium, Caryophyllaceae  
 Chaetagnathia, Butterflies and Moths  
 Chamaelirium, Liliaceae  
 Charadrius, Birds  
 Chelonia, Reptiles  
 Chenopodium, Chenopodiaceae  
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