

# Critical Habitat Features & Activities Checklist

This checklist provides a convenient way to document the presence of critical wildlife habitat features and describe activities where even small-scale projects are likely to have significant impacts on wildlife habitat functions. Projects affecting larger areas (> 5000 sq. ft.) should undergo full wildlife habitat evaluations.

When any project within BVW and Riverfront Area, and above-threshold projects in other resource areas, will alter one or more of the following critical habitat features, the conservation commission has sufficient grounds to find that it will result in significant adverse impacts to wildlife habitat functions.<sup>1</sup> For below-threshold projects, the conservation commission may use this information to request the applicant to avoid, minimize and mitigate adverse impacts to the identified feature(s).

The activities on the checklist may adversely affect wildlife habitat functions even when the area of impact is less than the thresholds listed in section III. Conservation commissions may use this information (for bordering vegetated wetlands and riverfront area) as grounds for a determination that the project will result in significant adverse impacts, or (for other resource areas) to *request* (but not require) the applicant to avoid, minimize and mitigate adverse impacts caused by the proposed activity or activities.<sup>2</sup>

The checklist is followed by background information that explains the particular reason(s) why a habitat feature or activity is on the list.

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<sup>1</sup> This checklist is not intended as an exhaustive list of grounds for determining when small-scale projects will result in significant adverse impacts to wildlife habitat. Commissions may confront other circumstances not represented on this list that also would serve as grounds for such a judgment.

<sup>2</sup> Although the Wetlands Act does not provide jurisdiction over impacts in buffer zones (unless they will also alter a resource area), conservation commissions should actively negotiate with project proponents to avoid altering these critical habitat features when they occur in areas adjacent to resource areas.

# Critical Habitat Features & Activities Checklist

## CRITICAL HABITAT FEATURES

- habitat for state-listed animal species
- isolated wetlands >5000 sq. ft.
- sphagnum hummocks and pools suitable to serve as nesting habitat for four-toed salamanders
- depressions that hold standing water with potential to provide vernal pool habitat
- areas within 200' of vernal pools
- trees with large cavities (>12" diameter at cavity entrance)
- existing beaver, mink or otter dens
- existing nest trees for birds that traditionally reuse nests (bald eagle, osprey, great blue heron)
- freshwater mussel beds
- areas that are known to contain open water in winter with the capacity to serve as significant waterfowl winter habitat
- turtle nesting areas
- vertical sandy banks (bank swallows and kingfishers)
- the following habitat characteristics when not commonly encountered in the surrounding area:
  - riffle zones (e.g. in eastern MA)
  - springs
  - gravel stream bottoms (trout and salmon nesting substrate)
  - plunge pools or deep holes in streams
  - medium to large, flat rock substrates in streams
- project area is the sole connector between habitats >50 acres in size

## ACTIVITIES

- structures that obstruct animal movement
- activities that result in significant disturbance within:
  - 100' of existing beaver, mink or otter dens,
  - 200' of existing osprey or great blue heron nests, or
  - 1400' of existing bald eagle nests
- bank stabilization projects using hard structure solutions that:
  - significantly affect ability of stream channel to naturally shift and meander, or
  - create a discontinuity in cover that would inhibit animal passage.
- dredging projects

## Background Information

### Critical Habitat Features

1. Isolated wetlands. Although isolated wetlands are not explicitly protected under the Wetlands Protection Act, they typically provide all or most of the habitat functions provided by bordering vegetated wetlands. Where significant areas of isolated wetland (>5000 square feet) exist within other resource areas (land subject to flooding, riverfront area), they should be considered as especially valuable habitat features.
2. Depressions that hold standing water with potential to provide vernal pool habitat. Even if not certified as vernal pools, depressions that hold standing water are important habitat features, especially if they have the potential to provide vernal pool habitat.
3. Areas within 200 feet of vernal pools.<sup>3</sup> Where vernal pools have been certified or identified by evidence from a competent source, the areas within 200 feet of those pools are especially important as upland, migration, and dispersal habitat for vernal pool amphibians and reptiles. It may be appropriate to conclude that activities within 200 feet of vernal pools will not result in adverse impacts to wildlife habitat when the area in question does not in its current condition provide appropriate habitat for vernal pool wildlife (e.g. parking lots, lawns). Below-threshold projects that take place beyond 200 feet of a vernal pool may hamper the wildlife habitat function of a vernal pool when it affects the last area of available upland habitat for vernal pool amphibians and reptiles (e.g. a small wedge of appropriate habitat within a previously altered landscape).
4. Sphagnum hummocks and pools of standing water suitable to serve as nesting habitat for four-toed salamanders (*Hemidactylium scutatum*). This state-listed amphibian requires a particular nesting habitat of sphagnum hummocks directly adjacent to pools of water that persist into the summer. This nesting habitat is generally found in limited supply throughout Massachusetts and should be protected wherever it occurs.
5. Trees with large cavities. Trees with large cavities ( $\geq 12$ " diameter at the cavity entrance), especially ones close to water, are particularly valuable for a variety of wildlife, including wood ducks, hooded mergansers, barred owls, mink and otter. This critical habitat feature is very limited in supply throughout much of Massachusetts.
6. Existing beaver, mink or otter dens. These are important for their existing wildlife occupants as well as future occupants of the same or different species.
7. Existing bald eagle, osprey, and great blue heron nesting trees. These species typically reuse the same nests for many years.
8. Turtle nesting areas. Turtles require particular soil conditions and sun exposure within reasonable travel distances from appropriate aquatic habitats. Availability of appropriate nesting areas may be a factor limiting turtle abundance and distribution in Massachusetts. Turtle nesting typically occurs during the month of June.
9. Dense beds of freshwater mussels. Freshwater mussels are a valuable food resource for raccoon, mink, otter and various species of waterfowl.
10. Vertical sandy banks. Bank and Northern rough-winged swallows and kingfishers prefer vertical sandy banks near water for nesting. This important habitat feature is generally found in limited supply throughout Massachusetts.

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<sup>3</sup> Within the limits of jurisdiction.

11. Areas that are known to contain open water in winter with the capacity to serve as significant waterfowl winter habitat. Relatively few areas of significant open freshwater are available for wintering waterfowl in Massachusetts. Those areas that do exist must be protected from alteration or disturbance.
12. The following habitat features when not commonly encountered in the surrounding area. Although these habitat features may be very common in some areas, they are quite rare and extremely valuable in other parts of Massachusetts.
  - a. stream bed riffle zones (especially rare in eastern MA, the Cape and the Islands)
  - b. springs (important for maintaining base flows and moderating water temperatures)
  - c. gravel stream bottoms (trout and salmon nesting substrate)
  - d. plunge pools or deep holes in streams (important winter and dry weather habitats for fish and salamanders)
  - e. medium to large, flat rock substrates in streams (important for salamander nesting habitat and invertebrate production)
13. Project area is the sole connector between areas of habitat >50 acres in size. Even relatively small areas can be very important for connecting other areas of significant habitat. Even small projects have the potential to disrupt animal movement and habitat connectivity if they alter small areas of connecting habitat.

## Activities

The following activities may adversely affect wildlife habitat functions even when the area of work is relatively small.

1. Structures that obstruct animal movement. A variety of structures have the potential to be significant obstacles to animal movement. These include, but are not limited to, fences, stone walls, retaining walls, standard and granite curbs, railroad tracks, and steep-sided ditches. A number of issues come into play in determining whether a structure will significantly obstruct animal movement, including design, size and orientation of the structure, surrounding land use, and availability of reasonable alternative routes for animal passage. In evaluating the impacts of structures on animal movement it is important to keep in mind the needs of some of the least mobile wildlife species, such as box turtles, turtle hatchlings, snakes, salamanders, and moles.
2. Activities that result in significant disturbance within:
  - a. 100 feet of existing beaver, mink or otter dens,
  - b. 200 feet of existing osprey or great blue heron nests, or
  - c. 1400 feet of existing bald eagle nests.
3. Bank stabilization projects using hard structure solutions that:
  - a. significantly affect the ability of the stream or river channel to naturally shift and meander, or
  - b. create a discontinuity in cover that would inhibit animal passage.
4. Dredging projects. Dredging projects are so likely to result in impacts beyond the dredged area (due to downstream impacts of suspended sediments or draw down impacts) that they will probably result in significant adverse impacts to wildlife habitat. Some dredging projects may result in a net benefit to wildlife by restoring habitat value in degraded systems. However, even these projects require careful review to ensure that potential adverse impacts are minimized. Dredging projects for the primary purpose of habitat restoration may take advantage of the procedures for Division review and approval of wildlife

habitat management activities (Appendix E). Wildlife habitat management practices that are reviewed and approved by the Division are presumed to have no adverse effect on wildlife habitat.<sup>4</sup>

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<sup>4</sup> 310 CMR 10.60 (1)(c)