



# ENDANGERED SPECIES HABITAT ASSESSMENT GUIDELINES: WILDLIFE

(revised 8/10/2009)

## PURPOSE

The Natural Heritage and Endangered Species Program (NHESP) may request that a project proponent conduct an Endangered Species Habitat Assessment. This assessment will be used to help the NHESP:

1. determine whether or not a proposed project will adversely affect the actual Resource Area habitat of imperiled wildlife (MA Wetlands Regulations, 310 CMR 10.00);
2. determine whether or not a proposed project will result in a "take" of imperiled state-listed rare species (MA Endangered Species Regulations, 321 CMR 10.00);
3. evaluate the level of impact to imperiled species habitat during the Conservation and Management Permit application process (321 CMR 10.04(3)(b));
4. identify approaches to avoiding or minimizing project-related impacts to imperiled state-listed species and their habitats.

## PREPARING TO CONDUCT THE ASSESSMENT

- The assessment must address the *specific state-listed species identified by the NHESP* through an "Information Request" or other written comments.
- Endangered species habitat assessments must be *conducted by qualified wildlife biologists* who have direct experience working with the species or taxa that are the subject of the habitat assessment.
- We may reject habitat assessments that are not conducted by qualified individuals. Therefore, we encourage the proponent to gain pre-approval of the NHESP for biologist to conduct the assessment.
- The habitat assessment must *describe the entire project site*, not just the portion of the project site within the proposed project "footprint."
- The habitat assessment must *consider the landscape context* of the project site, and identify and map off-site habitat features that may be of importance to the focus rare species.

## REPORTING REQUIREMENTS

1. Report addressing all four key elements: cover type map, habitat map, existing conditions narrative, and impact assessment.
2. All required photographic and mapping requirements.
3. Resumes for each biologist involved in an assessment should be submitted to the NHESP.
4. Other items specifically requested by the NHESP.
5. Copies of the assessment report
  - If you observe a state-listed species: 2 paper + 1 copy on CD
  - If you do not observe a state-listed species: 1 paper + 1 copy on CD

**Mail Report To:**  
Regulatory Review  
Natural Heritage &  
Endangered Species Program  
1 Rabbit Hill Road  
Westborough, MA 01581

**Please Note:** If the full report is less than 2MB, you may email an electronic copy to the appropriate review biologist or review assistant in lieu of sending a CD. Please be sure to include the NHESP Tracking Number in the email. A paper copy should still be mailed to the office.

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## REQUIRED KEY ELEMENTS OF HABITAT ASSESSMENT: WILDLIFE

### COVER TYPE MAP

Upland and wetland portions of the project site should be subdivided into land-use/land-cover types based upon dominant vegetation and existing development.

- The DEP Wetlands Classification as represented in the MassGIS DEP Wetlands coverage provides one suitable mapping system as does the Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al.). Hydrology of wetlands and ponds should be described, as should the hydroperiod of any vernal pools. Certified and potential Vernal Pools (see MassGIS) should be mapped, including all potential vernal pools observed in the field that do not appear on the MassGIS Potential Vernal Pools coverage.
- Upland areas should be classified into similar coarse cover types (e.g., northern hardwoods, central hardwoods, conifers, mixed forest, shrubland, grassland/meadow, etc...).

### HABITAT MAP

All portions of the project site should be classified based upon their *ability to provide habitat functions for the relevant species* (e.g., potential nesting, breeding, feeding, migratory, overwintering, estivating).

- Some portions of the site may have multiple habitat functions (e.g., feeding and overwintering) and should be mapped accordingly.
- Important *off-site habitat areas should also be mapped* (e.g., turtle nesting areas, vernal pools for turtle feeding, Ambystoma breeding), as these features may influence the on-site patterns of habitat use (e.g, potential migration corridors). The habitat map should be overlaid on an ortho-photo of the project site (e.g. 2001 MassGIS color orthos) with an indication of the scale.

### EXISTING CONDITIONS

- *Description of cover types* - Descriptions of dominant vegetation within each cover type, amount of each cover type, description of other important site features such as existing developed or disturbed areas (e.g., paved roads, gravel pits, areas of recent forest clearing).
- *Habitat analysis* - Methodology used to map habitat functions, literature citations, habitat descriptions and evaluation (e.g., discussion of variation in habitat quality), quantification of habitat features (e.g., how much feeding and nesting habitat occurs on site), consideration of landscape context of site relative to important off-site habitat features.
- *Representative Photographs* - Representative photographs must be provided for all representative habitat types and key habitat features (e.g. Blue-spotted Salamander breeding habitat, Grasshopper Sparrow grassland habitat, Blanding’s Turtle nesting habitat). Please indicate the photograph location and include the cardinal direction of view (e.g. photograph locus #1; looking northeast) or an arrow on a map of the site map.

### IMPACT ASSESSMENT

This section should include quantification of the impacts of the proposed project to state-listed species habitat, including impacts to each specific habitat function for the relevant species (e.g., potential nesting, breeding, feeding, migratory, overwintering, estivating). For example, what proportion of the nesting or feeding habitat will be altered by the proposed project, or will the project result in alterations to hydrology or water quality within state-listed species habitat? Will the project fully alter all of a particular habitat that supports a key function?

Potential impacts should be thoroughly evaluated and discussed. In addition, *recommendations should be provided* for protective measures and design changes that avoid and/or minimize project impacts to state-listed species and their habitats, and mitigate such impacts.

If any species is also listed pursuant to the U.S. Endangered Species Act (16 U.S.C.A. §§ 1531-1544), this section must reference and include guidance from the appropriate Recovery Plan.

**If any state listed rare species are observed, a Rare Animal or Plant Observation Form must be submitted to the NHESP within 45 days of the observation.**