

# **Habitat Assessment Guidelines for the Town of New Paltz**

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## **Draft prepared by**

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## **Based on the 2006 Guidelines prepared for the Town of New Paltz by:**

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## **Message from the Planning Board Chair**

New Paltz is committed to maintaining rural character, protecting the environment, and preserving natural resources. We believe our goals are compatible with the goals of any land development projects within the Town and will result in projects more in keeping with the Town's Comprehensive Plan. To ensure smart growth, New Paltz promotes Habitat Assessment early in the process to establish the environmental constraints and guide the plan before the applicant invests significant time and money in design and engineering.

## **Purpose of Habitat Assessment**

These Guidelines are designed for use by applicants who are presenting proposed land development projects to the Town Planning Board (PB) or other reviewing agency. The PB recommends that an applicant conduct the Habitat Assessment prior to developing any detailed design or drawing for their project.

The purposes of a Habitat Assessment are to:

- 1) Provide information that will help the applicant, the Planning Board, and other reviewers and decision-makers adequately assess the existing environmental conditions and areas of ecological sensitivity of the site,
- 2) Help the applicant design the development project in ways that minimize and mitigate potential impacts of the project on important sensitive areas,
- 3) Help the applicant avoid costly reworking of the project design, and
- 4) Streamline the environmental review.

The Guidelines are also intended to foster a cooperative relationship between the Planning Board and project applicant starting at the earliest stages of project planning.

This proactive effort is intended to inform the configuration of development on a particular site, and may serve to reduce the costs of mitigation and remediation, as well as reducing the consequences of harm to important habitats and water resources. These consequences are part of the hidden costs of land development, which are often paid by Town residents and taxpayers long after project completion.

## **Habitat Assessment and the SEQR Process**

In the State Environmental Quality Review (SEQR) process, Parts 1 and 2 of the Environmental Assessment Form (EAF) must be filled out for each development proposal. The EAF contains questions about the presence of protected plants and animal species and on potential impacts the proposed project might have on those species. Most sites have never been surveyed by biologists, so the presence or absence of rare species or their habitats is unknown. A Habitat Assessment fills a need for information to answer these questions and helps fulfill the lead agency's responsibility to "take a hard look" at potential environmental impacts.

The PB may request a Habitat Assessment for projects classified as Type 1 or Unlisted Actions under SEQR, and for subdivisions resulting in 3 or more lots. The request will be made based on review of publicly available habitat information and priority habitat areas outlined in the procedure below. A Habitat Assessment should ideally be completed prior to initiating SEQR.

## **Procedure for Applying the Habitat Assessment Guidelines**

The Planning Board will use existing information to make a preliminary assessment of the ecological values of the site and the potential impacts of the project. On that basis, the Planning

Board will determine whether to request a Habitat Assessment, and the level of assessment to be conducted by the applicant. The Guidelines will be applied in conjunction with any applicable requirements under the Town of New Paltz Wetlands and Watercourse Protection Law, and before completion of the Erosion and Sediment Control Plan and the Stormwater Pollution Prevention Plan.

The Habitat Assessment must be carried out by a professional biologist or ecologist familiar with habitats and biota of the region and the life history needs of species of conservation concern. The field assessments described below may be carried out at any time of year as long as field conditions (e.g., deep snow, flooding, ice, recent fire) do not obscure the features necessary for identifying habitats.

The findings are to be submitted in a brief written report using the outline below. The annotations in the outline below constitute the Habitat Assessment Guidelines recommended by the Planning Board. Upon reviewing the applicant's Habitat Assessment report, the Planning Board will determine whether additional surveys must be conducted before the project review proceeds.

The Town's intent is that the Habitat Assessment and review by the Planning Board will take place at the "sketch map" stage of the project, and will precede any detailed planning, surveying, or engineer's services. This will help the applicant avoid the costs of expensive technical work that may only need to be redone on the basis of the assessment results. The final Habitat Assessment Report is to be completed and submitted with the rest of the formal application packet submitted to the Planning Board.

The basic procedures for conducting and reviewing the Habitat Assessment are as follows:

1. Applicant uses checklist and consults the Ulster County Parcel Viewer and maps on the town website to identify whether habitats of conservation concern have been mapped in the vicinity of the project area, including:
  - wetlands, watercourses, or their town regulatory buffer areas
  - large meadow or shrubland (>10 acres)
  - large forest (>200 acres)
  - "Biologically Important Areas" for rare plants, rare animals, and significant natural communities
  - Ulster County habitat "cores" or New Paltz "Priority Biodiversity Areas"If the project disturbance area will be within 200 feet of one of these areas, the PB may recommend a habitat assessment be completed prior to initiation of SEQR. Applicants are encouraged to meet with the PB to discuss the sketch plan.
2. Preliminary meeting with the Planning Board.
  - applicant describes project location and general intentions
  - applicant provides sketch map of location and preliminary design
  - Planning Board determines whether a Habitat Assessment is needed to assess potential environmental impacts. If so, the Guidelines are introduced and the PB determines whether to add or waive any components from the assessment.
3. Applicant conducts the Habitat Assessment and submits the preliminary report to the

Planning Board. A revised sketch map of the project design may be submitted with the report.

4. Planning Board and Environmental Conservation Board reviews the assessment for completeness, conveys to others for peer review if needed (e.g., Wetlands Inspector), visits the project site, and requests additional information if necessary.
5. Planning Board advises the applicant on any preliminary changes to the project design that would help to protect habitats or water resources.
6. Applicant proceeds with detailed drawings, and other components of the project application packet, and submits the final Habitat Assessment Report along with other application materials.
7. Planning Board and other agencies will refer to the Habitat Assessment Report in the course of their further review of the proposed project.

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## Habitat Assessment Report Components

### 1. Title page

Name and address of project, report date, applicant, name and contact information for report preparer.

### 2. Introduction

General site description, project description; location map on a USGS topographic base map.

### 3. Methods

Sources of information include existing studies and maps, agency inquiries, aerial photographs, and field visits. Include the results of an inquiry to the NY Natural Heritage Program (<http://www.dec.ny.gov/animals/31181.html>) about records of rare species and rare natural communities on and near the site. Append the inquiry letter, map, and the NYNHP response.

### 4. Habitat Map

A sketch map (e.g., drawn on an aerial photo image) depicting the habitats and watercourses on and near the property along with roads, existing structures, and other features that would help the applicant and the town understand the spatial relationships of existing natural and cultural features.

### 5. Habitat Descriptions and Evaluation.

Describe the habitats or ecological communities on and near the site, using classifications in the *Ecological Communities of New York State* (Edinger et al. 2014), the *Biodiversity Assessment Manual for the Hudson River Estuary Corridor* (Stevens and Kiviat 2001), or other standard reference relevant to this region. Include intermittent and perennial streams, lakes, and ponds, as well as all upland and wetland communities or habitats. Offsite areas may be assessed using topographic maps, soils maps, aerial photographs, and other remote sensing resources.

For each habitat or community, list the dominant trees, shrubs, herbs, and mention any species that are unusual or may be indicative of special habitat conditions. Comprehensive plant lists are not required.

Include general assessments of habitat quality, to the extent possible given the seasonal or other field conditions at survey time. Measures of quality may include, but are not limited to:

- age (e.g., of forests),
- age or size of trees,
- size of habitat area (e.g., for forests or meadows),
- connectivity with other habitat areas on and off-site, including streams,
- abundance of downwood, standing snags, bedrock outcrops, loose rocks, organic debris, and other microhabitat features,

- levels of human disturbance (e.g., from recent or historic logging, ATV use, foot traffic),
- presence and abundance of non-native or invasive species,
- diversity of native plant species (a qualitative assessment is adequate),
- observable indicators of surface water,
- (for streams, ponds, wetlands) water depths, clarity/turbidity, substrates, flow at survey time, entrenchment, condition of streambanks, etc.; describe intermittent as well as perennial streams, and
- presence and quality of vegetated buffer zones adjacent to streams, wetlands, other aquatic habitats, and other sensitive habitat areas.

Explain the timing, duration, and limitations of the field surveys, and make recommendations for further surveys at other seasons or in other conditions if needed for an adequate assessment.

Some of the information outlined above can be presented in a simple tabular form such as in Table 1, below, but this should not substitute for the more detailed narrative descriptions of the habitats.

**Table 1:** Example of summary data for habitats on and near the property.

Habitat Type	Approx. Area	Approx. Area to be Disturbed	Dominant Vegetation	Soils	Species of Conservation Concern (representative species)	General Quality (see narrative for details)
Oak-hickory forest	3 acres	½ acre	Oaks (red, white, black, chestnut), pignut hickory, sugar maple, maple-leaf viburnum, witch-hazel, wild sarsaparilla, Canada mayflower	Bath-Nassau complex; Hoosic gravelly loam	Northern goshawk, red-shouldered hawk, scarlet tanager, mole salamanders, box turtle	Good: part of a 50-acre medium-age forest; few invasive plants; soils in eastern half disturbed by selective logging 10 years ago
Shrubby oldfield	5 acres	2 acres	Grey dogwood, orchard grass, Kentucky bluegrass, goldenrods	Churchville silt loam	Golden-winged warbler, prairie warbler, wood turtle (for nesting)	Good: no evidence of recent disturbance; few non-native shrubs
Intermittent woodland pool	¼ acre	0 acres	Buttonbush, silky dogwood, stickights, lesser duckweed, green algae	Nassau-Rock outcrop complex	Jefferson salamander, marbled salamander, spotted salamander, wood frog, spotted turtle	High: native plant community; large trees at perimeter; large forest adjacent; no evidence of disturbance in or near pool
Perennial stream	average width: 6 ft.; pool depth 3-8 in.	0 acres	Submerged mosses; water starwort; sparse vegetation on bars and low banks (see text for details)	n/a	Wood turtle, Louisiana waterthrush, brook trout, Indiana bat	Good – water clear; channel shaded; substrate of cobbles & bedrock; little evidence of siltation; floodplain forested.

## 5. Species of Conservation Concern.

Considering the habitats present on and near the site, list and discuss the plants and animals of conservation concern that do or may use the site and nearby areas, and may be affected by the proposed project. For the purposes of this assessment, the Planning Board considers “species of conservation concern” include at a minimum those listed by the New York State

Department of Environmental Conservation (NYSDEC) as Endangered, Threatened, Rare, Special Concern, or Species of Greatest Conservation Need (SGCN). **Appendix C** of these Guidelines lists the species of conservation concern that are known to occur in the Town of New Paltz, and the general habitats they use to fulfill their life history needs. Use that table and your knowledge of habitats on and near the property to identify the species of concern that might occur there.

Consider habitat uses for breeding/nesting, nursery, foraging, seasonal migration, and overwintering habitat, as appropriate, for the species of concern. In some situations the discussion can treat groups of organisms (e.g., “forest interior breeding birds” or “fish of coldwater streams”), and need not discuss each species separately.

**6. Potential Impacts.**

Describe the proposed development project, and assess the potential impacts of the proposed project on biological and water resources. Consider the effects of habitat loss, fragmentation, and other degradation, the edge effects of human activities, the effects of impervious surfaces, increased runoff of surface water, and contamination of surface water or groundwater.

**7. Potential Mitigation.**

Discuss preliminary site design, engineering, infrastructure features, or other measures that could be employed to mitigate any adverse effects of the proposed project on biological or water resources. Because this assessment is carried out at an early stage of planning, this discussion is expected to be fairly general, and need not be accompanied by engineer’s drawings.

**8. References Cited.**

Complete citations (year, author, title, publisher) for any reports, manuals, or other documents referred to in your assessment narrative.

## Appendix A. Habitats of the Town of New Paltz

Habitats on any particular site in the Town of New Paltz may include but are not necessarily limited to the following types. Generic descriptions of these habitat types are in Edinger et al. 2014, Kiviat and Stevens 2001, and Cowardin et al. 1979. (See Appendix B for full citations.)

<b>STREAM, POND AND WETLAND HABITATS</b>	<b>NOTES</b>
Perennial stream	Flows year-round in a year of average precipitation
Intermittent stream	Dries up at some time in a year of average precipitation
Deep water	Water depth greater than 6.6 ft
Pond/lake edge wetland	Water depth less than 6.6 ft
Forested wetland	Forested swamp
Scrub-shrub wetland	Shrub swamp
Emergent wetland	
Aquatic bed	
Unconsolidated bottom (pond)	
Rock bottom (pond)	
Intermittent woodland pool	Vernal pool in a forested setting
Wet meadow	
Wet clay meadow	
Fen	Wet meadow or low-shrub wetland fed by calcium-rich groundwater seepage
Kettle shrub pool	
Circumneutral bog lake	
Acidic bog	
Spring or seep	
<b>UPLAND HABITATS</b>	
Upland meadow, hayfield, cropland	Active and inactive agricultural land and herbaceous oldfields
Upland shrubland	Shrubby oldfields and other shrub-dominated upland habitats
Orchard/plantation	Christmas tree farms, fruit orchards, tree plantations
Cool ravine	Very deep, very narrow ravine with steep rocky walls flanking a stream at bottom
Upland hardwood forest	≥ 75% hardwood cover in the overstory
Upland conifer forest	≥ 75% conifer cover in the overstory
Upland mixed forest	25-75% hardwood or conifer cover in the overstory
Floodplain forest	
Crest, ledge, and talus	
Cultural habitats	Manicured areas lacking structures or pavement For example, athletic fields, golf courses, campgrounds, large lawns, mowed park-like areas under trees
Waste ground	Abandoned soil or rock mines, active private dumps, unreclaimed landfills, post-industrial or –commercial sites, and other areas with stripped topsoil, little vegetation, but without paving or structures

## **Shawangunk Ridge Habitats**

Listed below are major ecological communities found within the Shawangunk Ridge area. Communities are grouped under six broad headings that correspond to the **conservation target areas** on the overlay maps produced by the Shawangunk Ridge Biodiversity Partnership. Those maps are available at New Paltz Town Hall.

### **1. Conservation Target Area: Hemlock-Northern hardwoods forest**

Appalachian oak-hickory  
Appalachian oak-pine  
beech-maple mesic forest  
hemlock-northern hardwood forest  
highbush blueberry bog thicket  
northern hardwood  
vernal pool

### **2. Conservation Target Area: Chestnut oak forest**

ice cave talus  
vernal pool

### **3. Conservation Target Area: Lakes, rivers and wetlands**

floodplain forest  
hemlock-hardwood swamp  
natural lake  
red maple-hardwood swamp  
sedge meadow/emergent marsh  
shrub swamp  
vernal pool  
perennial and intermittent streams

### **4. Conservation Target Area: Pitch pine-oak-heath rocky summit**

heath rocky summit  
highbush blueberry bog thicket  
ice cave talus  
pitch pine-heath rocky summit  
red maple-hardwood-heath  
scrub oak rocky summit  
vernal pool

### **5. Conservation Target Area: Dwarf pine ridge**

dwarf pine ridge  
dwarf shrub bog  
highbush blueberry bog thicket  
ice cave talus  
pitch pine-blueberry peat swamp  
sparse dwarf pine ridge  
sparse pitch pine-oak-heath rocky summit  
vernal pool

### **6. Conservation Target Area: Cliff and talus**

cliff  
acidic talus slope woodland  
exposed bedrock/talus communities

## **Appendix B. Resources for a Habitat Assessment**

- McGowan, K.J. and K. Corwin (eds). 2008. The Second Atlas of Breeding Birds in New York State. Cornell University Press, Ithaca, NY. Breeding bird occurrence data is also available at <http://www.dec.ny.gov/cfm/xtapps/bba/>
- Calhoun, A and M.Klemens. 2002. Best development practices: Conserving pool-breeding amphibians in residential and commercial developments in the northeastern United States. MCA Tech. Paper No. 5, Wildlife Conservation Society, Bronx, NY.
- Cowardin, L.M., V. Carter, et al. 1979. Wetland and deepwater habitats of the United States. Office of Biological Services, US Fish and Wildlife Service, Washington, DC.
- Edinger, G J., D.J. Evans, S. Gebauer, T.G. Howard, D.M. Hunt, and A.M. Olivero (eds). 2014. Ecological communities of New York State. Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. New York Natural Heritage Program, Albany.
- Environmental Law Institute. 2003. Conservation thresholds for land use planners. Environmental Law Institute, Washington, DC. ([www.elistore.org](http://www.elistore.org))
- Howard, Timothy, et.al. 2001. Rare species and significant ecological communities of the significant biodiversity areas within the Hudson River watershed. Cornell University and the New York State Department of Environmental Conservation.
- Kiviat, E. and G. Stevens. 2001. Biodiversity assessment manual for the Hudson River estuary corridor. New York State Department of Environmental Conservation, Albany. 508 p.
- NYS Department of Environmental Conservation. (no date) New York State Amphibian and Reptile Atlas Project, 1990-1999. Data and species accounts available at <http://www.dec.ny.gov/animals/7140.html>

**Appendix C: Species of Conservation Concern in the Town and Village of New Paltz, NY**  
(available at [http://www.townofnewpaltz.org/sites/newpaltzny/files/file/file/species\\_table\\_new\\_paltz\\_2016\\_fi nal.pdf](http://www.townofnewpaltz.org/sites/newpaltzny/files/file/file/species_table_new_paltz_2016_fi nal.pdf))