

GREENPLAN

April 14, 2009

Information Services
New York Natural Heritage Program
625 Broadway, 5th Floor
Albany, NY 12233-4757

GREENPLAN INC.
Environmental Planners
302 Pells Road
Rhinebeck, NY 12572
845.876.5775
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www.greenplan.org

Re: *Natural Resource Inventory
Zoning, Subdivision and Comprehensive Plan Amendments, Town of Red Hook, Dutchess County*

Dear Sir or Madame:

I am writing as the consulting Town Planner for the Town of Red Hook. Our firm is presently gathering information on the Town's natural resources as part of the SEQR review of a comprehensive set of amendments to the Town's Zoning and Subdivision Laws, and minor amendments to the Comprehensive Plan. Please provide any information you can concerning known occurrences of endangered, threatened and/or special concern wildlife species, rare plant, animal or natural community occurrences, or other significant habitats within the Town and immediately surrounding area.

We would ask that the information provided to GREENPLAN be in both paper form and digital, if it is available. We use ArcView for our Geographic Information System (GIS) needs and would be interested in availability of data in ArcInfo Export or shapefile format. We would ask that the full set of fields be provided so that we can assess the resource and its importance.

Any information that is provided indicating sensitive element occurrences would remain the property of this consulting firm. Information on sensitive element occurrences would not be copied, filed at Town Hall, or publicly disclosed in any other manner. Non-sensitive element occurrences would be made publicly available only in accordance with NHP data request procedures.

If you have any questions, please contact me at the number above. Thank you for your assistance.

Very truly yours,



Michele Robinson Greig, PhD, AICP
Associate Planner

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April 14, 2009

United States Department of the Interior
Fish and Wildlife Services
3817 Luker Road
Cortland, NY 13045

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We would ask that the information provided to GREENPLAN be in both paper form and digital, if it is available. We use ArcView for our Geographic Information System (GIS) needs and would be interested in availability of data in ArcInfo Export or shapefile format. We would ask that the full set of fields be provided so that we can assess the resource and its importance.

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DOCUMENTATION for SHAPEFILES of ELEMENT OCCURRENCE LOCATIONS

NEW YORK NATURAL HERITAGE PROGRAM

Description: The shapefiles represent locations of element occurrences recorded in the New York Natural Heritage Program's Biodiversity Databases. Element occurrences are specific locations of rare plants, rare animals, rare or significant ecological communities*, and concentration areas of groups of animal species. The shapefiles also contain selected data fields associated with these occurrences.

*** Information relating to the identity and location of rare plants and animals is sensitive and should not be made available for public use. For records dealing with those species most subject to collection and disturbance if their identity and location are publicized, the field **SENSITIVE** (for data sensitive) in the attribute table has the value "Y". ***

A shapefile with **species** in its name (e.g. nynhp_species) contains records of occurrences of rare animals and rare plants last documented since 1980, and for which the locations are precisely or relatively precisely known.

A shapefile with **comms** in its name (e.g. nynhp_comms) contains records of occurrences of significant natural communities.

A shapefile with **potential** in its name (e.g. nynhp_potential) contains records of element occurrences either last documented before 1980 (historical records), and/or records for which precise or relatively precise locations are not known (e.g., records known only to the level of NY Breeding Bird Atlas survey block).

The shapefile contains shapes showing the spatial extents of element occurrences. The rare species or significant ecological community is located either throughout the area covered by the shape, or at some portion of that area. The shape associated with each element occurrence depends on how detailed the available information about the location of the element is, and on the method used to generate a spatial representation of the occurrence. More specific interpretations follow.

Circle:

The element occurrence is, or was, located somewhere within the circle:

The size of the circle corresponds directly with the uncertainty of the location of the occurrence. A precisely known location is represented with a very small circle; the larger the circle, the more uncertain the actual location of the occurrence. For occurrences represented by very large circles, the actual location is presumed to be, or have been, somewhere within the circle.

Rectangle:

The locations of most element occurrences represented with rectangles are known, but have not been precisely digitized. The rectangles are approximations of the element occurrence's known spatial extent, and are defined by the occurrence's northernmost, southernmost, easternmost and westernmost extents. The actual boundaries of the occurrence are within the rectangle.

Irregularly shaped polygon:

For ecological communities with irregular polygons, the polygons are always the known spatial extent of that community occurrence.

For animal and plant species with irregular polygons, the element occurrence occurs throughout the

area of the polygon, or it occurs somewhere within the area of the polygon.

The shapefiles contain selected data fields. For definitions of data fields, see below.

Usage Notes:

1. These shapefiles are a static version of a database that is updated continuously. It does not contain Heritage records added after the date it was created. For current records the New York State Natural Heritage Program must be contacted.
2. More than one shape may occur at a single location: one polygon on the screen may actually be multiple overlapping occurrences of different species or communities.
3. Some occurrences are represented by very small polygons. ***Unless you are zoomed in close enough, the polygon may not be visible.*** Drag a selection box to select all polygons in an area.
4. Long text fields from the Natural Heritage Program=s biodiversity databases may be truncated.

Completion Date: April, 2009

Projection and Map Units: NYTM in meters, NAD 83 (NYTM -- New York Transverse Mercator -- equals UTM Zone 18 between longitudes 72° and 78°; east and west of UTM Zone 18, NYTM is an extension of Zone 18).

Scale of source data: 1:24,000, 1:12,000, or 5-meter-accuracy GPS

Source: Based on information and maps from field surveys, museum specimens, and project reports, the location and boundaries of an element occurrence are determined as precisely as the available information allows. These locations and boundaries are mapped in one of three ways: 1) Locations and boundaries are recorded in the field with GPS; 2) Locations and boundaries are screen digitized using digital 1:12,000 orthophoto quarter quads or digital 1:24,000 topo map images; 3) Locations and boundaries of element occurrences are drawn on paper copies of USGS 1:24000 or 1:25000 topographic quadrangles; then the boundaries and/or centrum coordinates are tablet digitized from the copies of USGS quads overlaid on registered 1:24000 NYS DOT planimetric quadrangle maps. 4) Locations and boundaries of element occurrences are drawn on paper copies of USGS 1:24000 or 1:25000 topographic quadrangles; a mylar grid overlaid on the USGS quadrangle map is then used to either calculate the latitude and longitude of a centrum point, which is buffered to produce a circle, or to calculate the latitude of the northernmost and southernmost extents and the longitude of the easternmost and westernmost extents, which are used to produce a rectangle. All boundaries and centrum locations are stored in an ArcView shapefile. Values for fields documenting location, biology, and management of the occurrence are entered into the Natural Heritage Program=s database, Biotics. These fields are attached to the shapefile to populate the attribute table. Records from specific areas, and selected fields, are selected from this shapefile for distribution.

Fields in Data Table

Sensitive: (Data sensitive): While no NY Natural Heritage data should be made available for general public use, this field indicates whether the precise location of the element occurrence is

especially sensitive and greater care should be taken to restrict its public distribution. If the value is **Y = Yes, the element is one of those considered most subject to collection and disturbance if its identity and location are publicized, and so the data are especially sensitive.**

Scien_name (Scientific name): For plants and animals, the New York State scientific name of the element. For ecological communities*, the New York State name of the community type. (Element can be a plant species, an animal species, an ecological community, or a concentration area for a group of species.)

Commonname: (Common name): For plants and animals, the New York State common name of the element. For ecological communities, the New York State name of the community type.

Last_date: The date of the most recent observation of the element occurrence, as documented in the Natural Heritage databases. The format is most often YYYY-MM-DD.

Location: The name, or names, of the site where the element occurrence is, or was, located.

Elem_Group: Vertebrate Animal, Invertebrate Animal, Vascular Plant, Nonvascular Plant (moss), Community, or Animal Assemblage. (Animal assemblages are multi-species animal concentration areas, such as bat hibernacula and waterfowl concentration areas).

NY_listed (NY State protected status): Level of state legal protection: Endangered, Threatened, Special Concern (animals only), Protected Wildlife (animals only), Game (animals only), Rare (plants only), or Unlisted by NYS.

US_listed (Federal listing status): Level of federal protection under the Endangered Species Act: Endangered, Threatened, or Candidate.

For next two fields, see also Explanation of Rarity Ranks at the end of this document.

S_rank: The Heritage state rarity rank of the species or community.

G_rank: The Heritage global rarity rank of the species or community.

Comments: For **species**, comments about the number of individuals observed, their condition, and the condition of the habitat. For ecological **communities**, comments regarding the reasons for the occurrence's significance and the relative quality of the occurrence, particularly in regards to area, condition, and landscape context. The first 254 characters of the comments are in the first column **Comments**; if necessary, the second 254 characters are in the second column **Comments2**.

Locatn_Use (Location Use): For animals, typically migratory animals, which use different areas at different times of year, the location use class indicates the specific season or behavior associated with this location; e.g., Breeding, Nonbreeding for birds; Hibernaculum, Maternity Colony, or Bachelor Colony for bats.

Site_desc (Site description): A description of the general area and habitat where the element occurrence is found. The first 254 characters of the description are in the first column **Sitedesc1**; if necessary, the second 254 characters are in the second column **Sitedesc2**; if necessary, the third 254 characters are in the third column **Sitedesc3**.

Directions: Directions to the element occurrence. If the precise location is known, detailed directions are entered. If the precise location is not known, information to the greatest level of locational detail available is entered. The first 254 characters of the directions are in the first column **Directions**; if necessary, the second 254 characters are in the second column **Directns2**.

Mgmt_com (Management Comments): Comments on any management needed to ensure continued existence of the element occurrence, as identified by the original field biologist and/or transcriber of the record. **These comments are not official recommendations by NYS DEC, nor do they carry any regulatory authority.**

Threats: Current and potential threats or disturbances to the element occurrence.

County: The name(s) of the counties in which the element occurrence is, or was, located.

Town: The name(s) of the towns in which the species or community is, or was, located.

Mangd_area (Managed Area): Lands managed for conservation (federal, state, local, private) on which the species or community occurs or occurred.

Eo_id: The unique identifier for the element occurrence.

* Natural community occurrences in this shapefile are all ranked as being of excellent or good quality, and therefore are considered significant from a statewide perspective. By meeting specific, documented criteria, the NY Natural Heritage Program considers these occurrences to have high ecological and conservation value. Conserving high quality examples of ecological community types in an area will also conserve the species, rare and common, using those communities as habitat. For descriptions of each of the ecological community types, please refer to the draft Second Edition of Ecological Communities of New York State (2002), at <http://www.dec.ny.gov/animals/29384.html> and click on DRAFT--Ecological Communities of New York State.

An ecological community is an assemblage of interacting plant and animal populations that share a common environment; the particular assemblage of plant and animal species occurs across the landscape in areas with similar environmental conditions. Freshwater wetland, estuarine, and upland ecological communities are classified according to their dominant vegetation and their physical setting; aquatic, marine, and cave ecological communities are classified according to their physical setting and their dominant flora and fauna. Examples of community types include deep emergent marsh, red maple-hardwood swamp, dwarf shrub bog, hemlock-northern hardwood forest, and tidal creek.

NY Natural Heritage tracks locations of ecological communities because they serve as habitat for a wide range of plants and animals, both rare and common; and because those community occurrences in good condition provide ecological value and services.

EXPLANATION OF RARITY RANKS used by NEW YORK NATURAL HERITAGE

HERITAGE GLOBAL AND STATE RARITY RANKS: Each species or community has a global and state rank as determined by the NY Natural Heritage Program. These ranks carry no legal weight. The global rank reflects the rarity of the species or community throughout the world; the state rank reflects the rarity within New York State.

STATE RANK:

- S1 = Critically imperiled in New York State. Typically 5 or fewer occurrences, very few remaining individuals, acres, or miles of stream, or some factor of its biology making it especially vulnerable in New York State.
- S2 = Imperiled in New York State. Typically 6 to 20 occurrences, few remaining individuals, acres, or miles of stream, or factors demonstrably making it very vulnerable in New York State.
- S3 = Uncommon in New York State. Typically 21 to 100 occurrences, or limited acreage or miles of stream in New York.
- S4 = Apparently secure in New York State.
- S5 = Demonstrably secure in New York State.
- SH = Historically known from New York State, but not seen in the past 25 years.
- SX = Apparently extirpated from New York State.

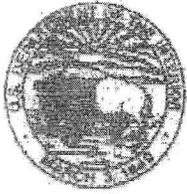
GLOBAL RANK :

- G1 = Critically imperiled globally because of extreme rarity (5 or fewer occurrences), or very few remaining acres or miles of stream) or especially vulnerable to extinction because of some factor of its biology.
- G2 = Imperiled globally because of rarity (6 - 20 occurrences, or few remaining acres, or miles of stream) or very vulnerable to extinction throughout its range because of other factors.
- G3 = Either rare and local throughout its range (21 to 100 occurrences), or found locally (even abundantly at some of its locations) in a restricted range (e.g. a physiographic region), or vulnerable to extinction throughout its range because of other factors.
- G4 = Apparently secure globally, though it may be quite rare in parts of its range, especially at the periphery.
- G5 = Demonstrably secure globally, though it may be quite rare.
- GH = Historically known, with the expectation that it might be rediscovered. GX = Species believed to be extinct.

Range ranks, e.g. S1S2, indicate not enough information is available to distinguish between two ranks.

? = a question exists about the rank. Q = a question exists whether or not the species or variety is a good taxonomic entity.

T-ranks (T1 - T5) are defined the same as G-ranks (G1 - G5), but the T-rank refers only to the rarity of the subspecies or variety.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New York Field Office

3817 Laker Road

Cortland, NY 13045

Phone: (607) 753-9334 Fax: (607) 753-9699

<http://www.fws.gov/northeast/nyfo>



Project Number: 90369

To: Michele Robinson Greig

Date: Apr 22, 2009

Regarding: Zoning, subdivision, and comprehensive plan amendments

Town/County: Town of Red Hook / Dutchess County

We have received your request for information regarding occurrences of Federally-listed threatened and endangered species within the vicinity of the above-referenced project/property. Due to increasing workload and reduction of staff, we are no longer able to reply to endangered species list requests in a timely manner. In an effort to streamline project reviews, we are shifting the majority of species list requests to our website at <http://www.fws.gov/northeast/nyfo/es/section7.htm>. Please go to our website and print the appropriate portions of our county list of endangered, threatened, proposed, and candidate species, and the official list request response. Step-by-step instructions are found on our website.

As a reminder, Section 9 of the Endangered Species Act (ESA) (87 Stat. 884, as amended, 16 U.S.C. 1531 *et seq.*) prohibits unauthorized taking* of listed species and applies to Federal and non-Federal activities. Additionally, endangered species and their habitats are protected by Section 7(a)(2) of the ESA, which requires Federal agencies, in consultation with the U.S. Fish and Wildlife Service (Service), to ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. An assessment of the potential direct, indirect, and cumulative impacts is required for all Federal actions that may affect listed species. For projects not authorized, funded, or carried out by a Federal agency, consultation with the Service pursuant to Section 7(a)(2) of the ESA is not required. However, no person is authorized to "take"* any listed species without appropriate authorizations from the Service. Therefore, we provide technical assistance to individuals and agencies to assist with project planning to avoid the potential for "take," or when appropriate, to provide assistance with their application for an incidental take permit pursuant to Section 10(a)(1)(B) of the ESA.

Project construction or implementation should not commence until all requirements of the ESA have been fulfilled. If you have any questions or require further assistance regarding threatened or endangered species, please contact the Endangered Species Program at (607) 753-9334. Please refer to the above document control number in any future correspondence.

Endangered Species Biologist: Robyn A. Niver

*Under the Act and regulations, it is illegal for any person subject to the jurisdiction of the United States to take (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect; or to attempt any of these), import or export, ship in interstate or foreign commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any endangered fish or wildlife species and most threatened fish and wildlife species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. "Harm" includes any act which actually kills or injures fish or wildlife, and case law has clarified that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife.



Dutchess County

Federally Listed Endangered and Threatened Species and Candidate Species

This list represents the best available information regarding known or likely County occurrences of Federally-listed and candidate species and is subject to change as new information becomes available.

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>
Atlantic Sturgeon ²	<i>Acipenser oxyrinchus oxyrinchus</i>	C
Bald eagle ¹	<i>Haliaeetus leucocephalus</i>	D
Bog turtle	<i>Clemmys [=Glyptemys] muhlenbergii</i>	T
Dwarf wedgemussel (Housatonic River drainage)	<i>Alasmidonta heterodon</i>	E
Indiana bat (S)	<i>Myotis sodalis</i>	E
New England cottontail	<i>Sylvilagus transitionalis</i>	C
Shortnose sturgeon ²	<i>Acipenser brevirostrum</i>	E

Status Codes: E=Endangered, T=Threatened, P=Proposed, C=Candidate, D=Delisted.

W=Winter S=Summer

¹ The bald eagle was delisted on August 8, 2007. While there are no ESA requirements for bald eagles after this date, the eagles continue to receive protection under the Bald and Golden Eagle Protection Act (BGEPA). Please follow the Service's May 2007 Bald Eagle Management Guidelines to determine whether you can avoid impacts under the BGEPA for your projects. If you have any questions, please contact the endangered species branch in our office.

² Primarily occurs in Hudson River. Principal responsibility for this species is vested with the National Oceanic and Atmospheric Administration/Fisheries.

Information current as of: 2/9/110

[Print Species List](#)