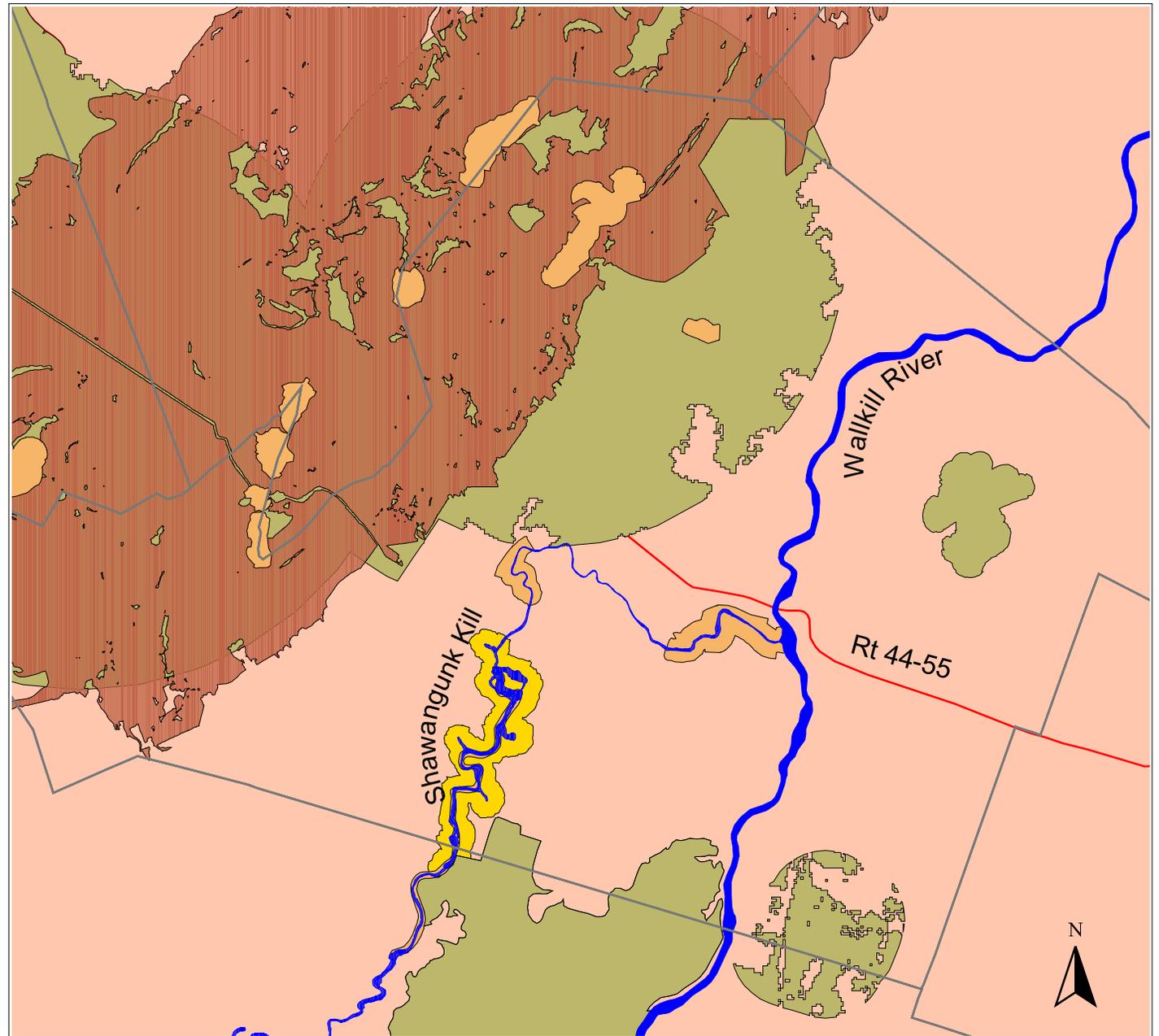


Town of Gardiner, Ulster County, NY

Major streams and areas important for the health of rare animals, rare plants, and significant ecosystems.

LEGEND

-  Major Streams
- Selected High quality habitats**
 -  Chestnut oak forest
 -  Floodplain forest
 -  Rare animal
 -  Rare plant



Scale 1:100,000

Map Created 7 February 2006
by Karen L. Strong,
Hudson River Estuary Biodiversity
Outreach Coordinator,
NYS Department of Environmental
Conservation

Data Sources: Streams, NYS DEC;
Rare species and significant ecosystems,
NY Natural Heritage Program

3 0 3 Miles



New York State Department of Environmental Conservation

Hudson River Estuary Program, Region 3

21 South Putt Corners Road, New Paltz, New York 12561-1620

Phone: (845) 256-3016 • FAX: (845) 255-3649

Website: www.dec.state.ny.us



Denise M. Sheehan
Commissioner

To: Melissa Barry, Behan Planning Associates

From: Karen Strong, Hudson River Estuary Biodiversity Outreach Coordinator, NYS Department of Environmental Conservation

Re: Biological Resources in the Town of Gardiner

Date: January 2006

The following is a summary of natural resources and important habitats in the Town of Gardiner. Data from the NYS Department of Environmental Conservation, US Geological Survey, New York State Reptile and Amphibian Atlas, and the New York Natural Heritage Program was used to identify these areas. After examining the information, four main areas of ecological importance emerge: the Shawangunk Kill and Mara Kill, the Shawangunk Ridge, and Shawangunk Grasslands. Identifying these areas of high quality habitat may be useful for open space planning in the Town of Gardiner.

Major ecological features of Gardiner:

Most of the town is in Wallkill River watershed. There is an ongoing watershed planning effort by the Soil and Water Conservation Districts of Orange and Ulster Counties. The far western portion of town on the “peak” of the Shawangunk Ridge, is in the Rondout Creek Watershed. The Wallkill flows into the Rondout at Kingston. The Shawangunk Ridge is the dominant natural resource feature in town, however, there are other areas of note, which are described below.

Known Areas of high habitat quality:

Shawangunk Ridge

The Shawangunk Ridge is a unique geologic feature that runs along the western edge of Gardiner, extending through New Jersey and into Pennsylvania. This area harbors a great diversity of rare plants and animals, as well as a number of very high quality ecological communities, and the globally-rare dwarf pitch pine forest. As a linear, forested ridge it is also considered an important wildlife corridor.

Within Gardiner, significant ecological communities on the ridge include chestnut oak forest, pitch pine oak heath rocky summit, acidic talus slope woodland, hemlock northern hardwood forest as well as numerous rare species. Also found in the ridge area by the Wildlife Conservation Society were salamanders indicating a high quality vernal pool: Jefferson salamander (SSC), marbled salamander (SSC), and spotted salamander. A cerulean warbler (SSC) was also found indicating high quality streamside (riparian) areas.

For more information on the significant natural communities, visit www.acris.nynhp.org.

The Shawangunk Ridge Biodiversity Partnership has been collecting biological information on the ridge for more than a decade. Through their Green Assets program, maps of significant habitats west of the Wallkill were provided to the town in 2004. The partnership is the best resource for more information on

these habitats. Contact Cara Lee, The Nature Conservancy's Shawangunk Ridge Coordinator at (845)255-9051 for information.

Shawangunk Kill

The Shawangunk Kill is a tributary to the Wallkill River. The Shawangunk Kill itself is excellent habitat with good aquatic species diversity, including fish, molluscs, and plants. The stream's flow and water quality are relatively intact for this region, but water quality is declining in this largely agricultural landscape. As the landscape suburbanizes, water quality may degrade even further from impervious surface and stormwater impacts. In the riparian area of the Shawangunk Kill, there are 27 patches of remnant floodplain forest. These patches consist of two larger core areas that have the potential to be larger. Red-backed salamander and Eastern Bluebird have been documented near the kill. The invasive plant Japanese knotweed is a serious threat to the streamside habitats.

Mara Kill

The Mara Kill is a tributary to the Wallkill. Wood turtle has been documented from the stream, which indicates a healthy stream system. Wood frogs have also been found near the stream, which indicates the presence of vernal pools with a healthy forest buffer.

These streams and the Wallkill River are important natural features in Gardiner, but the health and quality of all depend on the condition of the area bordering the river. These adjacent lands, also known as riparian areas, provide important benefits to a variety of plants and animals, as well as people. Riparian areas provide habitat for aquatic and terrestrial flora and fauna; they stabilize stream banks thereby preventing erosion and siltation; they improve water quality by serving as a natural filtration system; they absorb excess water during times of melting and high precipitation to reduce the risk of flooding; and they afford us with recreational opportunities and scenic vistas. It is important for the lands along a river's corridor to remain natural and intact wherever possible so that the system can continue to function properly and provide those services we rely on.

High Quality Grasslands

The Shawangunk Grasslands National Wildlife Refuge is in the Town of Shawangunk. However, high quality grassland bird habitat extends beyond the boundaries of the refuge and into the southern part of Gardiner between the Wallkill River and Shawangunk Kill. The areas has been identified as important habitat for several species of birds that are dependent on grassy areas, such as those provided at the refuge and surrounding pastures. Those species are short-eared owl (SE), Northern harrier (ST), Henslow's sparrow (ST), and upland sandpiper (ST) In winter, these areas have been identified as a concentration area for hawks and owls.

Other high quality grassland areas can be found in town east of the Wallkill river. Higher quality grasslands can be identified by the presence of bobolink*, Henslow's sparrow, American Kestrel, and prairie warbler.* Starred species have been found in Gardiner.

Other areas:

Data from the New York Amphibian and Reptile Atlas and the Wildlife Conservation Society indicate that wetlands are an important habitat with the presence of the bog turtle and spotted turtle. High quality streams are indicated by the wood turtle, high quality vernal pools are indicated by the wood frog. The eastern box turtle can also be found in Gardiner.

Information Sources used:

New York Amphibian and Reptile Atlas

The New York Reptile and Amphibian Atlas was a statewide survey conducted from 1990-1999. The Atlas project relied on volunteers to submit records of reptiles and amphibians. Species information was included in descriptions of other areas where it added information about habitat quality. For more information about the Atlas, visit <http://www.dec.state.ny.us/website/dfwmr/wildlife/herp/index.html>.

New York Natural Heritage Program

The New York Natural Heritage Program is a joint program of the Nature Conservancy and NYS DEC. They are also part of a continent-wide network of natural heritage programs called NatureServe. NY Natural Heritage works throughout New York State to identify rare plants and animals as well as significant ecological communities, which might be rare or of exceptionally high quality when compared to other examples in the state. Inventory by Heritage biologists is ongoing statewide. For more information about this program, visit www.nynhp.org.

Wildlife Conservation Society

The Wildlife Conservation Society's Metropolitan Conservation Alliance surveyed Gardiner's wildlife in 2002. A report for the area is expected in fall 2006. You may contact the Alliance at 25 Prospect Street, Suite 205, Ridgefield, CT 06877, 203/894-1863 and on the web at www.wcs.org/mca

Finding more information

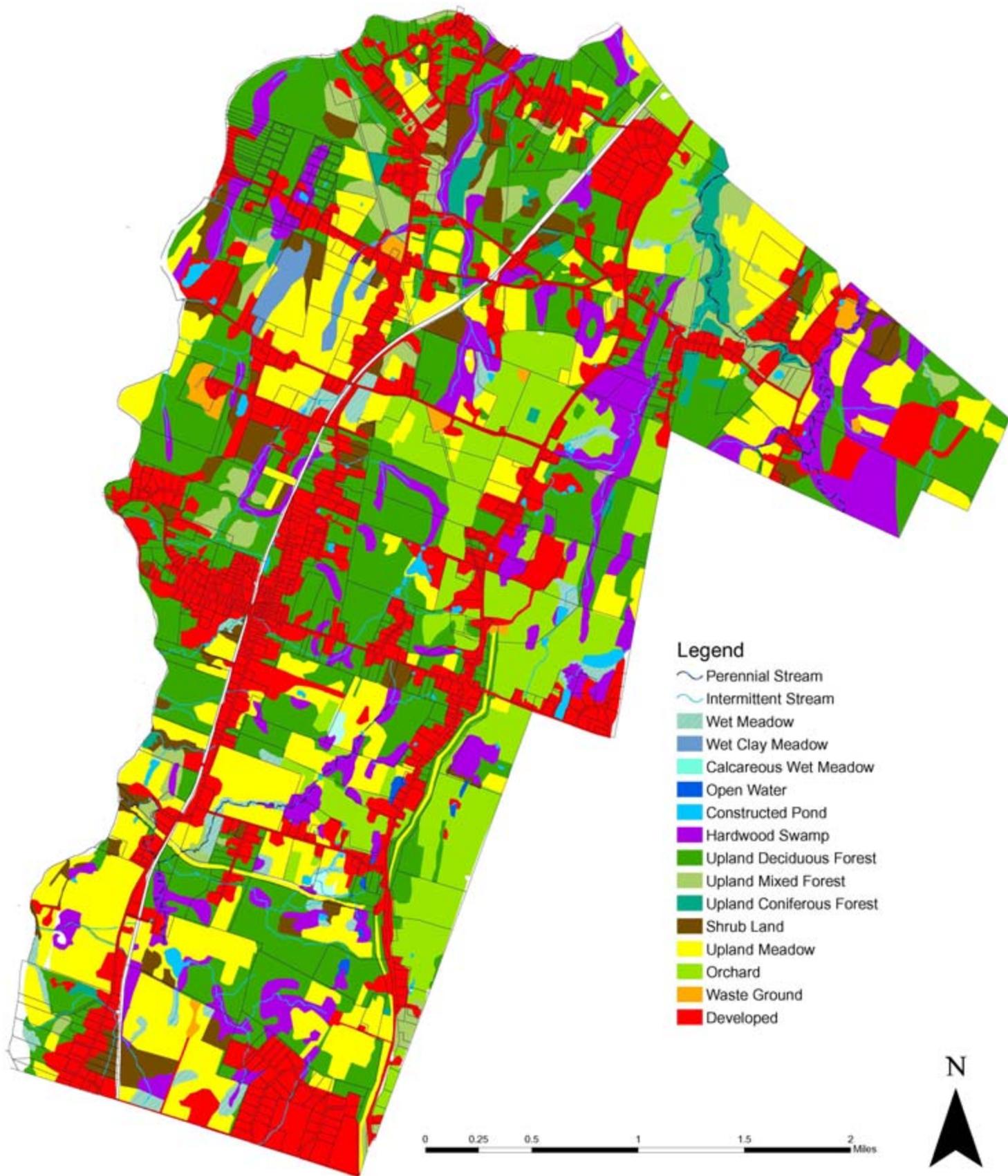
Contact Cara Lee of the Shawangunk Ridge Biodiversity Partnership: 255-9051

Volunteers from the Town of Gardiner worked with one of DEC's partners, Hudsonia, Ltd., to identify ecologically significant habitats east of the Wallkill River. The Wallkill Valley Task Force in Ulster County did a similar study to look for potentially significant sites along the Wallkill River. Contact Laura Heady at Hudsonia (845/758-0600) for a report and more information.

Breeding Bird Atlas data can be useful. Check the species lists for blocks 5661B, 5661C, and 5661D for the valley and 5661A, 5661D, and 5661B for the ridge.

<http://www.dec.state.ny.us/website/dfwmr/wildlife/bba/>

Local people are another invaluable resource for habitat and species information.



Legend

- ~ Perennial Stream
- ~ Intermittent Stream
- Wet Meadow
- Wet Clay Meadow
- Calcareous Wet Meadow
- Open Water
- Constructed Pond
- Hardwood Swamp
- Upland Deciduous Forest
- Upland Mixed Forest
- Upland Coniferous Forest
- Shrub Land
- Upland Meadow
- Orchard
- Waste Ground
- Developed

0 0.25 0.5 1 1.5 2 Miles



Gardiner

DRAFT HABITAT MAP

February, 2006

Study Area:
Gardiner, New York – East of Wallkill River
USGS Topographic Quadrangles: Gardiner and Clintondale

Biodiversity Training by Hudsonia Ltd.
Funding by Hudson River Estuary Program

Data Sources:
Habitat data prepared by Gardiner Biodiversity Team of Gardiner ECC
Digital Orthoimagery, Spring 2001, New York State GIS Clearinghouse

This draft map is a work in progress and should not be relied upon for specific data.
It may currently be helpful for planning purposes.