

# CREATING A NATURAL RESOURCES INVENTORY



Hudson River Estuary Program

## Tools for Conservation in Your Community

### What is a natural resources inventory?

A **natural resources inventory (NRI)** compiles information on important, naturally occurring resources within a given locality (e.g., municipality, watershed, or region), such as forests, streams, wetlands, and rocky ridges. Cultural resources, such as historic, scenic, and recreational assets are often included in an NRI, as well. NRIs are comprised of maps, data, and a report that describes the resources and the project. The NRI may be integrated into a comprehensive, open space, or watershed plan, or be a stand-alone product.

By visualizing an area's resources—where they occur and how they relate to each other, their surroundings, and existing development—an NRI provides a strong foundation for informed land-use planning and decision-making. NRIs also serve as the basis for identifying conservation priorities and strategies like zoning updates, open space protection, or the need for more detailed studies such as wildlife habitat assessment.

### Determining the goals and scope of an NRI

Defining short- and long-term goals at the outset of an inventory will help to determine the appropriate approach and scope of the project. Community priorities, staff or volunteer time, technical capacity, and available budget are also important factors. Key questions to consider include:

- Why do you want to develop or update an NRI?
- How will the NRI be used?
- What are the community's needs and concerns?
- Are there specific priorities you want to address?

### What to include in an NRI

A basic NRI includes readily available data that can be used to describe and assess the current status of known natural resources. Once completed, the need for additional data or



Photo: Ingrid Haeckel

#### A Summary of Getting Started:

##### 1. Establish a work group

- Invite local boards, community groups, and residents to attend an initial planning meeting to brainstorm NRI goals and objectives
- Establish a work group to direct the project, elect a leader
- Determine technical capacity

##### 2. Determine the goals and scope of the project

- Review community needs and prioritize NRI goals
- Define the study area

##### 3. Review existing plans and documents for natural resources information (and recommendations)

- Review the comprehensive plan, waterfront revitalization plan, any regional conservation or watershed plans, and environmental impact statements where available

##### 4. Develop a draft outline and timeline

- Determine information needs to address project goals
- Identify all inventory components, assign responsibilities

##### 5. Develop a budget and scope of work

- Investigate costs of producing maps, printing, and consultant work (if desired) and potential funding sources
- If hiring a consultant, develop a scope of work and RFP

##### 6. Publicize the inventory and solicit public input

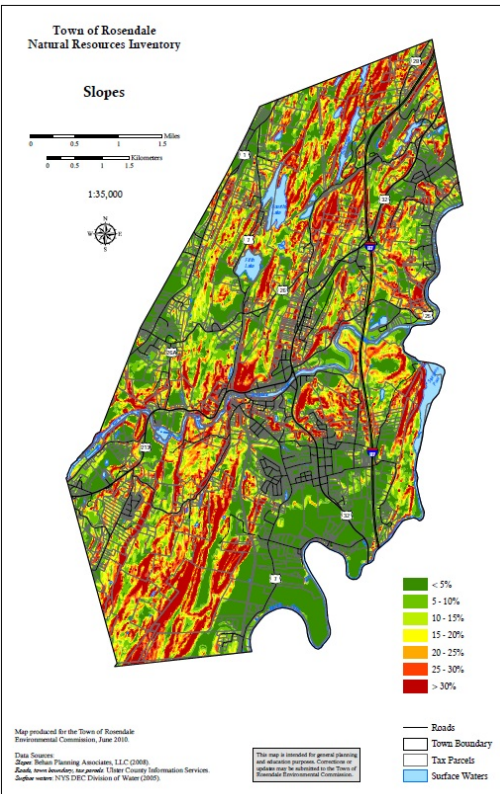
- Keep the community informed about the project
- Collect local knowledge about resources and priorities
- Solicit volunteers for specific tasks

#### RESOURCES FOR STARTING AN INVENTORY:

- *Creating a Natural Resources Inventory*  
[www.dec.ny.gov/lands/100925.html](http://www.dec.ny.gov/lands/100925.html)
- *Conserving Natural Areas and Wildlife in Your Community*  
[www.dec.ny.gov/lands/50083.html](http://www.dec.ny.gov/lands/50083.html)
- *Hudson Valley Natural Resource Mapper*  
<http://www.dec.ny.gov/lands/112137.html>

more detailed studies can be determined. [Creating a Natural Resources Inventory: A Guide for Communities in the Hudson River Estuary Watershed](#) suggests components to include in a basic NRI and provides information about publicly available data sources. The guidebook also presents options for conducting detailed studies to supplement existing data and enhance the NRI. Additional data sets often exist at the local level; always inquire with municipal and county agencies about available information at the start of an NRI project.

The Hudson River Estuary Program can provide data and assistance to communities developing NRIs or related plans in the estuary watershed. For more information, see the Contact Information section below.



Geographic Information Systems (GIS) is a computer-based tool that enables users to collect, manage, analyze, and display spatial information. GIS is commonly used for NRI maps such as this Rosendale slopes map.

**CONTACT INFORMATION**

**Ingrid Haeckel**  
 Conservation and Land Use Specialist  
 845-256-3829 | [ingrid.haeckel@dec.ny.gov](mailto:ingrid.haeckel@dec.ny.gov)

**Laura Heady**  
 Conservation and Land Use Coordinator  
 845-256-3061 | [laura.HEADY@dec.ny.gov](mailto:laura.HEADY@dec.ny.gov)

**New York State Department of Environmental Conservation**  
 21 South Putt Corners Road,  
 New Paltz, NY 12561

[www.dec.ny.gov/lands/5094.html](http://www.dec.ny.gov/lands/5094.html)

**Putting an NRI to work**

The results of an NRI should be available for use by municipal officials, county planning agencies, interested community and watershed groups, developers, and residents. Some applications of an NRI include:

- Public education
- Environmental review of development proposals
- Identification of conservation priorities
- Comprehensive plan update
- Zoning and subdivision regulation updates
- Watershed assessment and planning
- Open space planning and acquisition
- Critical environmental area (CEA) designation

**SUGGESTED NRI COMPONENTS:**

- Geology and Soils**
  - Bedrock and surficial geology
  - Soil survey units and attributes
  - Elevations and slope
- Water Resources**
  - Groundwater and aquifers
  - Watersheds, streams, waterbodies
  - Floodplains
  - Wetlands
  - Water quality indicators
- Habitats and Wildlife**
  - Significant Biodiversity Areas
  - Coastal and shoreline habitat
  - Stream and riparian habitat
  - Wetland habitat
  - Forests
  - Grasslands and shrublands
  - Rare plant and animal species and significant natural communities
  - Unfragmented habitat blocks
- Climate**
  - Climate conditions and projections
- Cultural Resources**
  - Historic resources
  - Scenic resources
  - Recreation resources
- Land Use**
  - Zoning and tax maps
  - Land use and land cover, farmland
  - Conservation and public lands

**Local Examples of Natural Resources Inventory Approaches**

Hudson Valley communities and citizen groups have approached the NRI process in a variety of different ways. For example, in the Town of Rosendale in Ulster County, volunteers on the environmental commission completed much of the work on the town’s NRI, which includes 21 maps and a report. The Town of Pleasant Valley in Dutchess County included an inventory as part of its Open Space and Farmland Plan, which was funded in part by a grant and was conducted by hired consultants with leadership from a town-appointed open space committee. Inventories that span multiple municipalities are often completed for regional plans. The Rensselaer Plateau Alliance included an inventory of ecological resources as part of its regional conservation plan, which sets a collaborative agenda for the 11 municipalities on the Plateau. The information contained in an NRI can also contribute to a watershed assessment or characterization report, which eventually becomes part of a watershed plan. The *Wappinger Creek Natural Resources Management Plan* includes a comprehensive inventory of natural resources in the 13 municipalities in the creek’s watershed.