

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 features within a given locality (e.g., municipality, watershed, or region), such as geology, soils, streams, wetlands, forests, and wildlife. Cultural resources such as scenic and recreational assets are often included, 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 reference.

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 NRI goals and scope

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



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A Summary of Getting Started:

1. Establish a committee

- Invite local boards, community groups, and residents to attend an initial planning meeting to brainstorm NRI goals and objectives
- Establish a committee to direct the project, choose 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. 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

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

- Review the comprehensive plan, open space plan, and any county/ regional open space plans or watershed plans

5. Develop a draft outline and timeline

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

6. Publicize the inventory and solicit public input

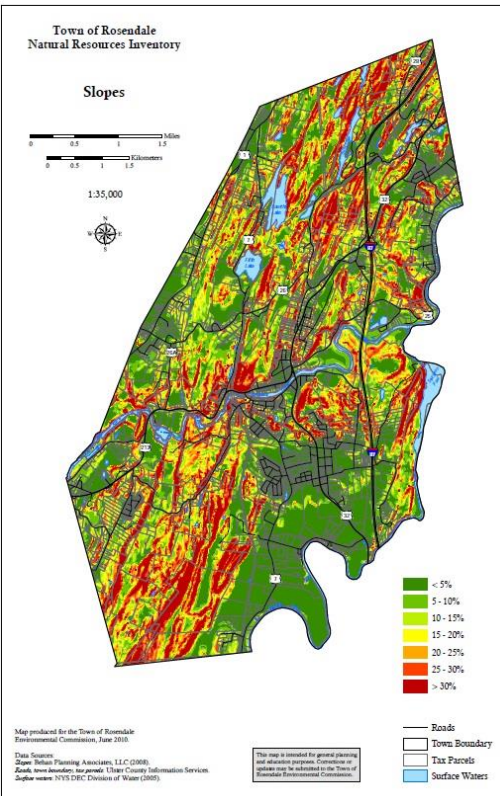
- Keep the community informed about the project
- Solicit local knowledge about resources and priorities
- Recruit volunteers for specific tasks

Resources for starting an inventory:

- *Creating a Natural Resources Inventory*
<https://www.dec.ny.gov/lands/120538.html>
- *Conserving Natural Areas and Wildlife in Your Community*
<https://www.dec.ny.gov/lands/120538.html>
- *Hudson Valley Natural Resource Mapper*
www.dec.ny.gov/lands/112137.html

detailed studies can be determined. The [Creating a Natural Resources Inventory](#) guidebook 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 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.



Putting the 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:

Physical Setting

- Topography and steep slopes
- Bedrock and surficial geology
- Soil survey units and attributes

Water Resources

- Aquifers and drinking water sources
- Watersheds, streams, waterbodies
- Special flood hazard areas
- Wetlands
- Water quality monitoring and assessment

Habitats and Wildlife

- Significant Biodiversity Areas
- Coastal and shoreline habitat
- Stream and riparian habitat
- Wetland habitat
- Forest and core forest habitat
- Grassland and shrubland
- Rare plant and animal species and significant natural communities

Climate

- Climate conditions and projections

Land Use

- Zoning and tax parcel maps
- Potential contaminant sources
- Land use and land cover, farmland
- Conservation and public lands

Cultural Resources (optional)

- Historic sites
- Scenic roads and views
- Recreation resources

Geographic Information Systems (GIS) is a type of mapping software used to organize, analyze, and display spatial information. GIS is widely used to create NRI maps such as this Town of Rosendale slopes map.

CONTACT INFORMATION

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Local Examples of Natural Resources Inventory Approaches

Hudson Valley communities have approached the NRI process in a variety of ways, drawing on local volunteers, student interns, land trust and university partnerships, county agencies, and professional consultants to assist in development of NRIs. The Town and Village of Cornwall in Orange County created an NRI with Estuary Program and county mapping assistance and used a subsequent grant to prioritize resources in an Open Space Inventory with assistance from Hudson Highlands Land Trust and a planning consultant. Students and staff at Vassar College assisted the City of Poughkeepsie in Dutchess County with creation of an NRI and web map, which are now integrated to SEQR reviews under a new Natural Resources law. The Columbia County Environmental Management Council partnered with Columbia Land Conservancy to develop a county NRI and deliver training to municipal officials, and the county planning department created a companion online NRI Data Viewer. Rensselaer Land Trust inventoried resources for a County Conservation Plan and has since assisted several municipalities with integrating county data to local NRI projects.