

CHAPTER: 5

Analyze the Information

Collecting data is just one piece of the NRI process. Analyzing the information can give greater meaning to the inventory and help to determine if additional detailed inventory studies are necessary. Analysis may also help to set resource protection priorities and identify recommended land-use planning strategies (see [Chapter 6](#)). As the work group presents and discusses the inventory, consider these questions:

Which areas in the community have the most important resource values, and where do resource combinations occur?

One goal of an NRI project is to identify areas in the community where key resources are located. Identification of these resources can provide helpful information for land protection projects and land-use planning measures to assure long-term resource protection. This analysis may point out a need for updating the comprehensive plan and re-evaluating zoning, for example.

Computer-generated analysis using GIS can be helpful for identifying areas with overlapping resources. This analysis overlays several of the individual data layers from the inventory to assist with prioritization. For example, if the floodplains of a tidal creek overlap with rare plant habitat, bald eagle nesting sites, a kayak launch, and a valued scenic vista, this could be an important area to focus conservation efforts. Overlapping resources can be displayed on a composite GIS map, and the NRI report can be referenced for detailed information on the individual resources.

While overlapping resource analysis can help to analyze some priority areas with regard to protection strategies, the significance of single resource values shouldn't be overlooked. Key single resources may be accorded high priority for conservation or consideration in land-use planning based on the extent and value of that resource for the community. For example, a highly productive aquifer area that is important for future water supply may receive high priority.

Activities on adjacent land can have impacts on abutting natural resource areas. To adequately protect sensitive resources, consideration should also be given to the management or protection of the surrounding areas. Protecting the buffers associated with particular resources, or using best management practices in adjacent areas, can be equally important to protecting the resource itself. For example, stream buffer protection can help to maintain stream bank stability, filter pollutants and sediment from

runoff before it enters the stream, and provide shade and organic matter, supporting stream water quality and habitat value. GIS software can be used to map buffers for important resources and perform a number of related distance, acreage, and other measurement calculations.

GIS analysis can also be used to demonstrate the impacts of land-use regulation changes to protect natural resources. For example, if a community were to adopt a 100-foot stream buffer setback requirement for certain land uses, GIS could be used to query the NRI data to determine which areas would be impacted, and how much acreage those areas represented.

Why is the resource important to the community?

Which resources are important will vary from community to community, depending on perceived needs. For example, water resources may be a priority for one municipality, while in another municipality, agricultural land may top the list. Identifying the value of significant resources can help suggest an appropriate conservation strategy. Some resources, such as water supplies, are important to the health and safety of the community and may be appropriately protected through regulation. Others, such as recreational areas, may be more appropriately protected through public purchase or voluntary initiatives.

What are the threats to the continued availability of these important natural resources?

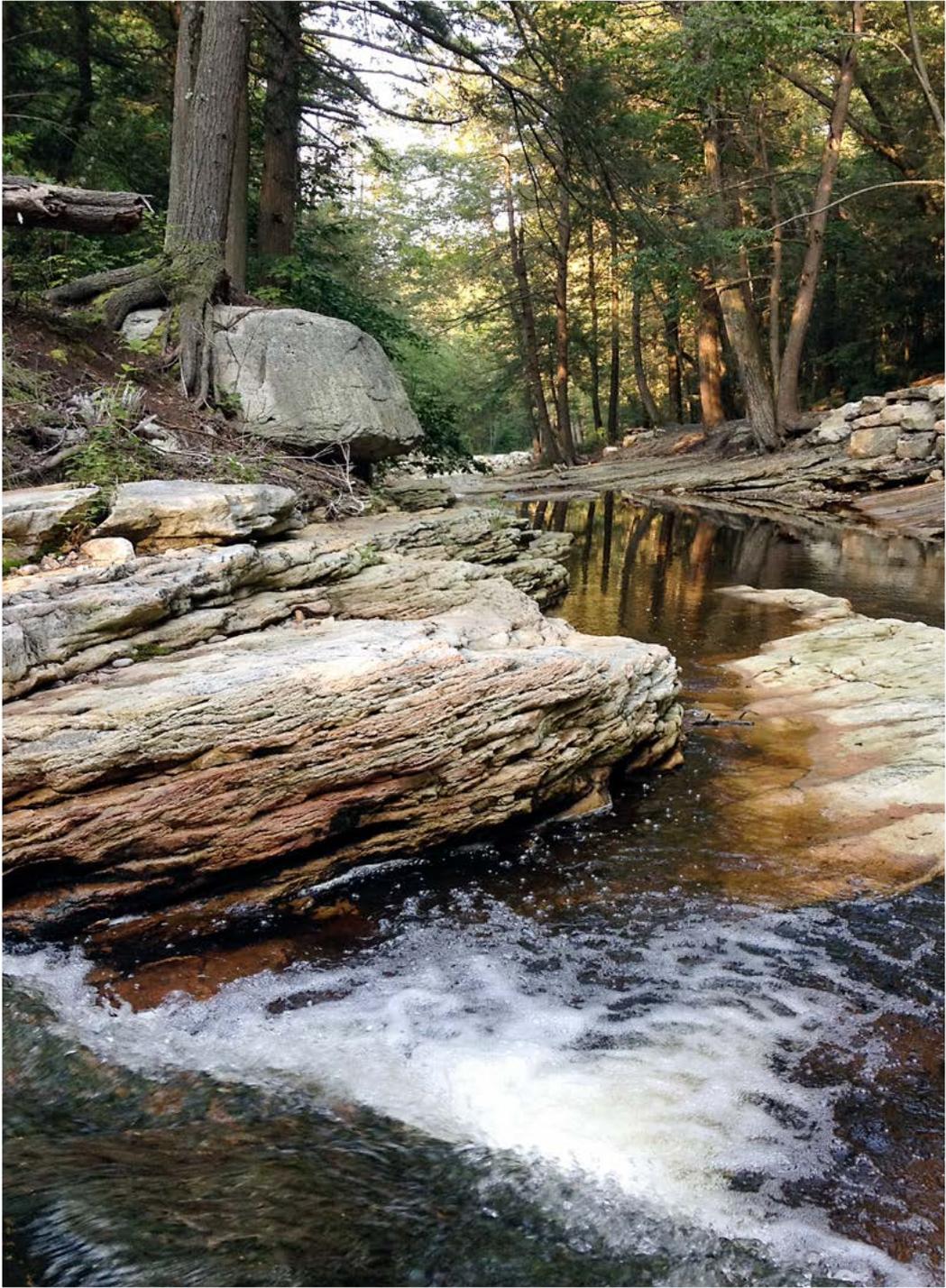
Determining threats to resource availability will involve an evaluation of the impact that current land-use regulations and land-use trends are having on the resource, as well as economic factors, climate change, etc. Consider whether land-use regulations are inhibiting or promoting the continuation of resource-dependent industries, such as farming or tourism. What would happen if the resource was lost?

Are there natural resources identified that are important to other communities or the region?

Natural resources don't respect political boundaries. Important resources such as streams or ridgelines frequently straddle several communities. Protection of these may require cooperative efforts with adjacent communities or local watershed groups.



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