

Meredith Natural Resources Inventory (NRI) Phase II

I. Introduction

In 2003 – 2005 the first phase of the Meredith Natural Resources Inventory (NRI) took place. This project was commissioned as a result of the 2002 Meredith Community Plan, which recognized the need to conduct a **resource inventory** in order to inform a subsequent Open Space Plan for the town. The NRI was largely map-based, and used available geographic information systems (GIS) data to highlight where the best water, soil, forest, and wildlife resources existed in Meredith. Some roadside surveys were conducted, although no off-road fieldwork was completed during Phase I. The findings of this two-year project can be found at <http://meredithnh.org/nri.php>

In the Phase I project a total of 10 *Co-Occurrence Areas* (CA's) were identified that contained a concentration of high quality natural resources such as drinking water supplies, wetlands, good growing soils, and wildlife habitat. The following list identifies each of these areas:

ID	NAME	Phase I Acres
1	Hawkins Brook	554.2
2	Bartlett Brook	95.8
3	Page Brook / Page Pond	664.4
4	Hatch Brook	457.8
5	Forest Pond/Dolloff Brook	479.0
6	Blake Brook/Lake Wicwas	831.9
7	Meredith Center/Chemung	1190.3
8	Spectacle Pond	85.9
9	Leavitt Mountain	380.5
10	Pemigewasset Lake	447.3
TOTAL		5187.021

Table 2. Phase I Co-Occurrence Areas

Since the NRI Phase I project was largely map-based, what was needed was a field investigation that verified the approximate boundary, condition and quality of each co-occurrence area. The roadside surveys indicated that some of the CA's, notably Hawkins Brook, may have been compromised by impacts from development. Among other CA's it was unclear whether or not any wildlife corridors existed between them, or if each CA was effectively isolated. Field surveys would provide ground-truthed data on water quality, vegetation cover, wildlife habitat, rare and endangered species, and wetland extent. Since many of the co-occurrence areas included prime wetlands, the Meredith Planning Department also requested that a field verification of prime wetland boundaries be a part of the Phase II process.

The 2006-2007 NRI Phase II Project arose directly from the findings of the NRI Phase I Project, wherein recommendations B, D, and E outlined the steps to answer three follow-up questions:

- 1) Based on field evidence, what is the reasonable extent of each co-occurrence area?
- 2) What is the condition of the wildlife habitat in each co-occurrence area and are they connected to other important wildlife habitat areas outside of the CA's?
- 3) What is the exact extent of each of the seven prime wetlands and do any changes need to be made to their designation?

The following report presents the findings of this three-part project. The first section describes the office and field methods used to derive the results as well as a brief description of the town's natural resources as summarized in the Phase I report. The second section presents the findings of each of the above three inquiries, including a) a series of two-page synopses of each co-occurrence area; b) an assessment of the wildlife habitats of Meredith; and c) the results of the field-based prime wetland mapping. The final section summarizes the project findings and provides a set of recommendations for conservation action. It also identifies additional targeted surveys that would enhance the current knowledge of wildlife and natural communities in Meredith.

The maps that are included in the report are presented in the order of the findings pertinent to them, for instance, each of the co-occurrence summaries contain an aerial photograph of the CA that shows wetlands, streams, and wildlife observations. An overall map of wildlife observations, as well as a map of important bird areas (IBA's) is contained in the wildlife habitat assessment section. A separate map is included in the wildlife section that shows rare & endangered species and exemplary natural communities that were discovered during the field survey. Finally, a town-wide prime wetland map as well as individual prime wetland maps for each of six prime wetlands (excluding Hawkins Brook) is found in the last section on findings.

Tables, charts, and photographs (figures) are included in the report as listed above, although some of these have also been inserted on large format (34" x 44") maps that are separate from this report. The latter large format maps include one showing wildlife observations, rare & endangered species and exemplary natural communities, and prime wetlands with 150-foot buffers.