A LOCAL | BY NEW HAMPSHIRE STORY | JUDY **TUMOSA** 

estled in the Upper Valley of the Connecticut River of New Hampshire, the town of Bath is located within the watershed of three rivers: the Connecticut, the Ammonoosuc and the Wild Ammonoosuc. We enjoy scenic views of the White Mountains, well-managed farm and forest land, and habitats that provide the opportunity to see wildlife every day. Having the outdoors so accessible is the very reason most residents choose to live here.

Bath residents consider the area's natural resources to be an essential part of their livelihood, and they have a history of protecting them. The town's Master Plan aims to preserve the town's rural character by protecting natural resources and wildlife habitat throughout the town. The Bath Planning Board upholds zoning and subdivision regulations that safeguard our waters, farms and forests. The Conservation Commission manages a Town Forest Tree Farm that is open to every citizen for hunting, hiking and wildlife appreciation. Local landowners follow good management when caring for their land, and several have given conservation easements to the town. Ammonoosuc River Local Advisory Committee (LAC) member Rick Walling puts it like this, "Bath is a beautiful place to live, and we are fortunate to have such caring and appreciative townsfolk."

## **Keeping It Local**

To understand and further protect these healthy habitats, area residents recently decided to develop a Natural Resources Inventory, or NRI. This is a document that identifies and describes important naturally occurring resources within a community, watershed or region. An NRI gives communities a strong foundation for informed decision-making about land conservation and local planning and zoning.

Since we didn't have funds to hire a consultant, and *we* wanted to decide what was important, ten townspeople volunteered for the NRI committee. They included members of the Conservation Commission and Planning Board, the Ammonoosuc River LAC and Connecticut River Joint Commissions Riverbend subcommittee, plus landowners, farmers and interns from Woodsville High School and Southern New Hampshire University (SNHU).

"My family has been farming in Bath for many years, and we see wildlife all the time," said local farmer Kathy Troy. "Being on the NRI committee, I can share what I know about how important farmland is to wildlife and learn how to manage the habitat at the same time. I also can participate in local decisions that may affect me."

As we dug into the project, we found that we didn't have to do it alone. Tools like *Natural Resources Inventories: A Guide for New Hampshire Communities and Conservation Groups* from UNH Cooperative Extension helped us understand the process. We received training and materials from the Taking Action for Wildlife Community Assistance Program. We used Wildlife Action Plan maps and found information and lots of help on the website *takingactionforwildlife.org*.

We decided to use the Wildlife Action Plan (WAP) as the basis for our NRI because the information was current, readily available and supported our desire to protect wildlife species of concern. Most people assumed that an inventory meant counting all the wildlife species, but since it provided a bird's eye view of the town, the WAP allowed us to plan without accessing any landowners' property.

## **Tracking Trout**

As part of gathering data for the inventory, volunteers spent an exciting three days in July helping fisheries biologists search high-elevation streams for the presence of Eastern brook trout. Team members were surprised to discover that each of the twelve streams supported healthy wild brook trout, even when water levels were very low.

"People tend to dismiss these little brooks as unimportant, when in reality they can be essential, stable reservoirs of habitat during the summer months," said fisheries biologist Dianne Timmins.

Each stream yielded a slightly different habitat, with its own complement of fish species. "It was great to see the variety of fish living in the streams that we drive by every day," said

While gathering data from twelve different streams for the Natural Resource Inventory, biologists discovered that these streams supported healthy wild brook trout populations.



Natural Resource Inventory (NRI) is a compilation of data on all natural resources - water, wetlands, soils, wildlife habitat and ways humans interact with those, such as trails and scenic areas. It's easy to create a basic NRI, as it is a collection of readily available maps that can be created by towns, regional planning commissions or online at GRANITView, the state's free online mapping program, at granitview.unh.edu.

Towns can then add local data, such as trails, prime hunting and fishing areas, wildlife or habitat data, and scenic views. This helps highlight what is most important to conserve. By identifying their key natural areas, towns can preserve their natural resources and local charm as they guide growth and economic development.







Counter clockwise from top left: This Wildlife Action Plan map formed the basis for the Bath Natural Resource Inventory; wild brook trout from a Bath stream; information about major wetlands is part of the NRI; the Swiftwater Covered Bridge over the Wild Ammonoosuc River in Bath was originally built in 1849. Above: Fish and Game biologists and volunteers measure brook trout sampled in Burton Brook.



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The New Hampshire Wildlife Action Plan, completed in 2006 with the help of many partners, is the state's framework for fish and wildlife conservation. Since its publication, many partners, communities and landowners have worked to implement its strategies.

One resulting initiative is Taking Action for Wildlife, a joint effort by Fish and Game and UNH Cooperative Extension to help communities, conservation groups and landowners conserve wildlife and habitats in New Hampshire. The Taking Action for Wildlife Community Assistance Program has provided over 30 communities with hands-on help and resources to guide conservation commissions and other local organizations prioritize conservation projects with a focus on wildlife habitat. Some, like Bath, have written their own Natural Resources Inventories; others have created land conservation plans, updated Master Plans or organized outreach campaigns aimed at landowners with important wildlife habitat on their property.

To get started, visit takingactionforwildlife.org or contact Amanda Stone at amanda.stone@unh.edu or 603-364-5324.

Conservation Commission Chair Bruce Barnum. "It gives us a new appreciation for healthy aquatic ecosystems and how important they are to Bath."

SNHU student intern Emma Lundberg participated and used this work as the basis for her senior thesis, *Bath, New Hampshire: Eastern Brook Trout Report & Recommendations for Conservation.* Her report has been added to the NRI and will be used to offer advice to interested landowners on keeping the streams healthy and protected.

"The streams where we find the majority of wild brook trout populations are not necessarily protected at the state level, so there is a real need for all of us interested in protecting fish habitat and water quality to become active at the town level," added fisheries biologist Ben Nugent. "Some of the biggest challenges are to remove perched culverts, which do not allow fish passage, and establish forested riparian buffers."

## **Putting It All Together**

To compile the NRI, committee members studied Wildlife Action Plan maps, learned about the wildlife habitat types and added the wetlands and brook trout studies. We studied Natural Resource Inventories compiled by other communities and used our own expertise to write different sections of the report. Woodsville High School intern Sam Clifford lent her graphic arts skills to the project, taking photographs and designing the cover and layout.

We got the word out about our efforts through the local newspaper, church newsletter and the *Bath Town Report*, as well as holding a public meeting hosted by the UNH Cooperative Extension county forester. A presentation at the Bath town meeting earned praise from Executive Councilor Ray Burton and a round of applause from town residents.

The information in our Natural Resources Inventory will be used by many other partners. It opened a dialogue with the Ammonoosuc River LAC to support their efforts to maintain good health for the river into which many of the Bath streams flow. The Eastern brook trout information will fill a void in the statewide database on brook trout presence or absence, as this had been the first opportunity to collect information in this watershed. Nationally, this work is part of the Eastern Brook Trout Joint Venture efforts to protect, enhance and restore wild brook trout habitat and fishable populations throughout their native range, also an objective of both the National Fish Habitat Action Plan and New Hampshire's Wildlife Action Plan.

It took us, with many partners, a year and a half and over 400 hours to complete the NRI. We understand the town better because we did it ourselves. And, the work is not done. We will use the wildlife habitat information to update the management plan for the Bath Town Forest and to complete inventories for vernal pools, invasive species and culvert crossings that might impede free passage for brook trout. We now can better determine how development projects might impact natural resources and offer environmentally friendly alternatives where possible. We can also offer willing landowners advice on improving wildlife habitat.

As we fish in the rivers, harvest timber in the woods and watch birds feed their fledglings in the backyards of Bath, we now know much more about what makes a healthy environment in our town and how to keep it that way. It is satisfying to have completed such an important document and exciting to know that there is much more to explore and protect in our town, and that we will do it together as a community. We encourage other towns to write their own Natural Resource Inventories; you can see ours at *TakingActionforWildlife.org* under "Community Stories."

Judy Tumosa is the Watershed Education Specialist for Fish and Game. She volunteered her time for Bath as the NRI committee chair.



