



# New Hampshire's Freshwater

PARTNERING TO PROTECT OUR LAKES AND RIVERS

Whether glistening in the summer sun or locked in winter's icy grip, our rivers, lakes and streams are a defining feature of New Hampshire's natural beauty. Our freshwaters are essential habitat for thousands of plant and wildlife species, and are critical to the life cycles of countless more ... including our own.

## THE FLOW OF PROGRESS

The combination of gravity and water made rivers an abundant and convenient source of power for the mills that fueled New Hampshire's progress from isolated settlements to prosperous communities. Over the course of two centuries, dams were built across New Hampshire's rivers for many reasons. There are more than 4,800 dams in New Hampshire today, some of which continue to provide power without contributing to global warming, create recreational opportunities, and protect low-lying communities from flooding. But many others are old and obsolete.

## THREATS TO NEW HAMPSHIRE'S FRESHWATERS

Some old dams act as barriers, blocking fish that move within freshwater habitats (like Eastern brook trout) and fish that migrate between rivers and the sea (like Atlantic salmon, American shad, and river herring). Dams can also block the movement of mussels, turtles, salamanders and many other species.

And dams can also disrupt natural flow regimes, the seasonal rhythms of high and low waters to which many plants, animals and



Places like the Ashuelot River are sources of beauty and essential to a wide array of life. Our rivers, streams and lakes face a myriad of threats -- including pollution and fragmentation. The Nature Conservancy is uniquely positioned to work with partners and develop lasting solutions. Photo © Eric Aldrich / TNC.

natural communities have evolved. Some of our rarest habitats require periodic flooding. Small, scattered floodplain forests alongside rivers are enriched with sediments that support uncommon tree species like silver maple and a myriad of rare plants. When dams prevent these seasonal high-water events, other tree and plant species will replace native plants in floodplain forests.

And there are other threats to our freshwater systems. Poorly placed culverts, for example, can block fish and other organisms from one stretch of a stream to another.

Barriers like this can isolate populations of fish, mussels, salamanders and other species, increasing risks of harm to their numbers. Water withdrawals and diversions can also affect natural flows and the species that depend on those flows.

## A VISION OF HOPE ... IN NEW HAMPSHIRE AND BEYOND

New Hampshire's rivers are now far cleaner and healthier than they were only a generation ago. Rivers are being rediscovered by cities



The Conservancy is working with partner agencies and organizations in four states to restore healthy flows and remove barriers to fish passage along the Connecticut River and its tributaries. Photo © Jerry and Marcy Monkman, ecophotography.com.

and towns, serving as a new engine for economic and social vibrancy. To conserve our freshwaters is to safeguard not only nature, but our own well-being. The Nature Conservancy is committed to a vision of hope for conserving our freshwater resources, while also protecting their utility for power and safeguarding communities from potential flooding.

The Conservancy's *Campaign for a Sustainable Planet* contains one of the most ambitious goals ever for conserving freshwaters throughout the world, including here in New Hampshire. Here's a glimpse at what we're doing in the Granite State:

**Removing Obsolete Dams** - The Conservancy is partnering with agencies and other organizations to identify old and obsolete dams and remove them. This multi-faceted approach is looking for dams, which, if removed, will restore high-quality habitat and still ensure safety and property.

**Restoring Healthy Flows** – The

U.S. Army Corps of Engineers – empowered by Congress to manage the nation's waterways – and The Nature Conservancy are working together on an innovative project to examine and restore healthy river flows. This Sustainable Rivers Project has identified the Connecticut and Ashuelot Rivers in southwestern New Hampshire as two of 11 U.S. rivers as demonstration sites. Better understanding of flows and relatively minor management adjustments can make enormous improvements to a river's natural system. In a partnership with the U.S. Geological Survey, the Conservancy is working to understand the extent and health of floodplain forests ... and ultimately restore these rare natural communities.

**Restoring Connectivity** – Because culverts can also act as barriers to stream systems, the Conservancy is working with state agencies and local communities to assess road-stream crossings with ones that reconnect miles of high-quality habitat. One notable collaboration is in the Ashuelot River, where the


Conservancy and volunteers have looked closely at culverts and dams throughout the watershed. Now, the Conservancy and partners are preparing restoration plans in this ecologically important watershed. Improvements to stream connectivity are a major goal of the Eastern Brook Trout Joint Venture, of which the Conservancy is a cooperator.

#### HOW YOU CAN HELP

Because of the life-sustaining qualities of fresh water – for people and nature -- and the enormous threats posed to aquatic ecosystems, we can not afford to wait. Through capacity, expertise and real-world field experience, The Nature Conservancy is uniquely positioned to form meaningful and productive partnerships with agencies and communities.

Over the next three years, The Nature Conservancy will raise **\$160,000** for these projects in New Hampshire. Please join our efforts to protect and restore freshwater for life here in New Hampshire and throughout the world.

CAMPAIGN *for a*  
SUSTAINABLE  
PLANET

The Nature Conservancy 

Protecting nature. Preserving life.™

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