



The Common Waters Fund: a Forest-to-Faucet Approach for the Delaware River

By Stephanie Pendergrass
Research Fellow, Pinchot Institute for Conservation

The upper portion of the Delaware River watershed covers approximately 4,500 square miles of northeast Pennsylvania, western New Jersey, and southern New York. Forests cover the vast majority of the watershed and three-quarters of the forestland is privately owned. The geography of the region is made up of rolling hills cut from a huge plateau by hundreds of small streams that coalesce into larger rivers and eventually flow into the Delaware River itself. These characteristics provide ideal conditions for the provision of high quality drinking water. According to the USDA Forest Service, the upper Delaware River (above the Delaware Water Gap) contains some of the most important watersheds for producing drinking water in the northeastern



United States (Barnes et. al. 2009). These forested watersheds produce source water supplies for nearly four million people along the river—15 million people if water exported from the watershed is included. They also provide critical flow regulation services by slowing and filtering storm water runoff, lessening the intensity of flood and drought events.

The watershed’s continued ability to provide clean drinking water and flow regulation services is not guaranteed, however. The majority of forests in the Upper Basin lack permanent protection and are experiencing high development pressure. The fastest growing counties in each of the three respective states are located in the Upper Basin: Pike County, Pennsylva-

nia; Orange County, New York; and Sussex, New Jersey. Accordingly, the Forests, Water and People assessment ranked the Upper Delaware River watershed near the top in the amount of unprotected forestland facing high development pressure (Barnes et. al. 2009), and the Philadelphia Water Department has listed increased development pressure and forest loss in the Upper Basin as the top threats to their water supply. High rates of parcelization and ownership turnover, due in part to an aging landowner population, add another level of complexity to the issue of forest loss.

At the same time, these forests are also not as healthy, diverse, or valuable as they could be. (Although they have *(continued on page 2)*)

INSIDE

- 🕒 Innovation in Improving Water Management: The Water Fund Approachpage 4
- 🕒 Pennsylvania’s Forests: How They are Changing and Why We Should Carepage 6
- 🕒 Inside the Institute: Forest Conservation and Climate Changepage 8

recovered somewhat from the intensive harvesting that accompanied colonization and industrialization prior to 1900, they are still under stress from a variety of new problems, such as exotic insects, invasive plants, disease, deer overpopulation, and poor management decisions. These forests need intervention to improve their economic and ecological value, diversity, and resilience to natural disturbances, and to safeguard their ability to provide clean drinking water into the future.

For many of today's non-industrial forest landowners, however, active management of their land is not a priority. Others have difficulty making the up-front financial investments necessary to improve the value and condition of their forest. Federal and state cost-share programs do not meet the level of demand for financial assistance, particularly in the Upper Delaware Basin. Weak markets for the available forest products coupled with the long time frame needed to yield

“These forested
watersheds produce
source water supplies
for nearly four million
people along the river—
15 million people if
water exported from the
watershed is included.”

financial benefits from timber management further complicate efforts to make a living as a forest owner. This combination of inadequate or unsustainable management, insufficient resources for private landowners, and weak markets for forest products does not stimulate the amount of active management needed to protect the forests' economic and ecological value over the long term.

Because about three-quarters of the forestland in the Upper Basin is privately owned, any strategy to protect these forests or improve their management must focus on private landowners. The issues described above—forest loss and impaired health—are closely associated with private forest ownership. Long-term investment in and protection of these forest resources on private land is critical to maintaining water quality and regulating water quantity throughout the Delaware River Basin. This can be accomplished through a combination of permanent acquisitions, easements, and other strategies aimed at improving forest health and keeping private forest ownership viable in the face of economic pressure.

To make these strategic investments in forests and water quality in the Upper Delaware River Basin, the Pinchot Institute has led the formation of the Common Waters Fund (www.commonwatersfund.org). The



**PINCHOT
INSTITUTE**
FOR CONSERVATION

The mission of the Pinchot Institute is to advance conservation and sustainable natural resource management by developing innovative, practical, and broadly-supported solutions to conservation challenges and opportunities. We accomplish this through nonpartisan research, education, and technical assistance on key issues influencing the future of conservation and sustainable natural resource management.

BOARD OF DIRECTORS

Carol M. Collier, *Chair*, West Trenton, NJ
Nels C. Johnson, *Vice Chair*, Harrisburg, PA
Ross W. Gorte, *Secretary*, Washington, DC
Julie V. Gorte, *Treasurer*, Arlington, VA
Joyce K. Berry, Fort Collins, CO
Dale Bosworth, Missoula, MT
George H. Bohlinger III, Washington, DC
Hanna Cortner, Flagstaff, AZ
Jackson F. Eno, Hartford, CT
J. Robert Hicks, Jr., Richmond, VA
Lawrence T. Hoyle, Jr., Philadelphia, PA
Malcom McAlpin, Hawley, PA
Joseph Mancias, Jr., Alexandria, VA
Nicholas H. Niles, Hawley, PA
Jeremy Pinchot, New York, NY
Larry A. Quinn, Fairfax Station, VA
V. Alaric Sample, Washington, DC
Thomas B. Williams, Arlington, VA

PRO BONO COUNSEL

John Austin, Esq., Washington, DC

EMERITUS

John C. Barber, Warsaw, VA
Hugh C. Miller, Richmond, VA
Thomas Schenarts, Kennett Square, PA

LIAISONS

Daniel Devlin, Pennsylvania Bureau of Forestry,
Harrisburg, PA
Robin Thompson, USDA Forest Service,
Washington, DC

STAFF

V. Alaric Sample, *President*
Alex Andrus, *Communications Coordinator*
Maria Bendana, *Research Fellow*
Edgar B. Brannon, *Senior Fellow*
Blake Carpenter, *Assistant Director of Finance
and Administration*
Antony S. Cheng, *Senior Fellow*

James Finley, *Senior Fellow*

Patrice A. Harou, *Senior Fellow*
Brian A. Kittler, *Project Director*
Dennis C. LeMaster, *Senior Fellow*
Catherine M. Mater, *Senior Fellow*
Char Miller, *Senior Fellow*
Stephanie Pendergrass, *Research Fellow*
Peter C. Pinchot, *Senior Fellow*
William C. Price, *Program Director*
Amy E. Rogers, *Project Director*
Jeff M. Sirmon, *Senior Fellow*
James B. Snow, Esq., *Senior Fellow*
Eric C. Sprague, *Program Director*
Harold K. Steen, *Senior Fellow*
Shannon Sutherland, *Development
Coordinator*
Jennifer J. Yeager, *Chief Financial Officer*

For staff biographies please visit
www.pinchot.org/about_pic/staff

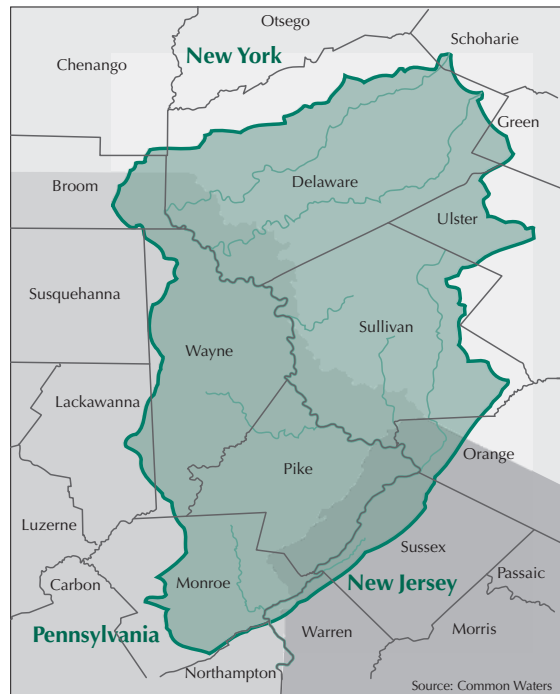
overall goal of the Fund is to protect water quality through conservation and management of forest resources, particularly on private lands, in the Upper Delaware River Basin. The initial pilot program is funded by a generous grant from the U.S. Endowment for Forestry and Communities, but the Fund hopes to attract other investors and leverage additional funding in the coming months and years. Geographic areas have been prioritized based on their relative contributions to water quality to ensure that funds are spent in the most important places for drinking water. Significant weight is given to parcels' Ability to Produce Clean Water score from the Forests, Water, and People Analysis (Barnes et. al. 2009).

The Common Waters Fund was publicly launched in February and currently supports development of forest stewardship plans, implementation of sustainable forest management practices, and land trust costs associated with establishing easements. Landowners receiving funds for plans or management practices will make a commitment to keep their land as forest for 10 years, or return their funds along with a penalty fee if they change the land use. County conservation districts and local forest associations will serve as local hubs of the program, where landowners can get information and application assistance. They will also serve as the primary on-the-ground partners to confirm the need for practices, provide technical assis-

tance when needed, and verify the completion of projects prior to payment.

Once the Upper Basin incentive program is up and running, the downstream outreach and fundraising efforts will begin in earnest. This will involve educating water users about the connection between forests and their drinking water and efforts to encourage donations and investment in source water protection. Because the Delaware River is in relatively good shape, the task of convincing people to invest in the *maintenance* of current conditions to prevent future decline is a bit more difficult than most other examples of source water protection funds. Proponents of existing water funds often know exactly how much it will cost to restore or protect the function of ecosystems that provide their water, because they have experienced the costly effects on their water supplies of deforestation, catastrophic wildfire, or other issues. Hydrological modeling work, literature reviews, and other supporting research will help demonstrate the need for investment to maintain the current high quality of the Delaware River and

Upper and Middle Delaware River Basin



The upper and middle Delaware River Basin drains approximately 4,500 square miles.

avoid future increased treatment costs or worsened flood events. A business plan will lay out the projected costs and benefits of different strategies and levels of conservation and explore various financing options.

It is hoped that the Common Waters Fund will not only continue into the future beyond the pilot grant, but will expand to address a wider range of issues that are important to protecting sources of drinking water. Sustained funding will allow testing of innovative approaches alongside proven methods for protecting forests over the long term. For more information about the Common Waters Fund, please contact Stephanie Pendergrass at spendergrass@pinchot.org or visit www.commonwatersfund.org.

Barnes, Martina, Todd, Albert, Whitney Lilja, Rebecca and Paul Barten. 2009. *Forests, Water and People: Drinking water supply and forest lands in the Northeast and Midwest United States*. United States Department of Agriculture Forest Service, Northeastern Area State and Private Forestry.

