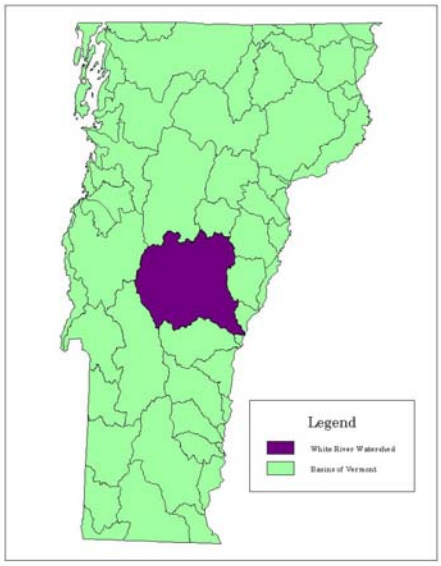
Helping local communities balance the long-term cultural, economic and environmental health of the watershed through active citizen participation.

2002 Annual Report

I. Partnership Overview

In 1996 the White River Partnership formed as a locally led, needs driven collaboration between citizens, communities, groups and organizations, and state and federal agencies. Our mission is to help local communities balance the long-term cultural, economic and environmental health of the watershed through *active citizen participation*. Our vision is that in the watershed, citizens, businesses and governments collaborate to make informed, responsible decisions that improve and protect the cultural, economic and environmental qualities of the watershed for present and future generations.



State of Vermont
White River Watershed

The Watershed

The White River Watershed is 454,000 acres covering all or part of 21 towns in central Vermont. Land ownership is 85% private, 5% municipal and state lands, and 10% National Forest. The 56-mile long White River is free flowing, the watershed is 84% forested, 7% in agricultural use, and only 5% developed. The White River Watershed is a Clean Water Action Plan National Showcase Watershed, an important river in the Connecticut River Atlantic Salmon Restoration Program, a Special Focus Area of the Conte National Fish and Wildlife Refuge, and a major tributary to an American Heritage River, the Connecticut River.

The river has been used for thousands of years as a travel way, first by Native American populations and later by European settlers. The narrow valleys were cleared for agricultural use and timber harvesting which work together today to create the scenic landscape enjoyed by tourists and residents alike.

The White River Watershed has fantastic human, cultural and natural resources, but faces many challenges on the journey to sustainable communities and natural resource use. Large-scale gravel mining was common until 1986. River morphologists have concluded that the White River and its tributaries are still experiencing instability due to decades-old gravel mining. Loss of riparian forest to transportation systems, agriculture and past forest management has left parts of the river in poor habitat condition. At the turn of the century the watershed was only 20% forested leaving lasting impacts. Sedimentation from eroding banks, elevated water temperatures and the loss of other riparian functions has reduced aquatic habitat quality for trout and Atlantic salmon in many reaches of the watershed.

A series of public forums in 1996 provided over 150 people an opportunity to talk about the issues that threaten the health of the watershed and the steps necessary to make change. Topping the list of citizen concerns were:

- Water Quality
- Riparian Habitat
- Streambank Erosion
- Public awareness of problems
- Public access to the river
- Point source & non-point source pollution
- Maintaining a working landscape (agriculture & forest)

The White River Partnership brings together the following partners to work on the issues identified in the public forums.

Our partners:	
Private citizens	Green Mountain National Forest
Two Rivers Ottaquechee Regional Planning Commission	Silvio Conte National Wildlife Refuge
Vermont Institute of Natural Science (VINS)	USFS, Northeastern Region State and Private Forestry
National Wildlife Federation	US Fish and Wildlife Service
Vermont Agency of Natural Resources	George D. Aiken Resource Conservation and Development
Trout Unlimited	Natural Resource Conservation Service
U.S. Environmental Protection Agency	The Towns of: Bethel, Sharon, Randolph, Rochester, Hancock, and Granville
Connecticut River Joint Commissions	

II. Partnership Goals

The Partnership has developed a five-year business plan to address the seven priority areas identified in the public forums (described above). Our watershed restoration efforts focus on the following five work areas:

- Locally Led Watershed Assessment: Combining the best of professional expertise with local knowledge and volunteer labor (where possible) we are measuring the health of the watershed through GIS analysis and watershed modeling, in-depth physical assessments, establishment of permanent cross sections, and watershed wide water quality monitoring.
- Stream Corridor Restoration: We are using natural channel design to restore stream function and process by completing two designed and constructed projects per year and a number of smaller stabilization projects with volunteer labor and numerous tree planting projects.
- Outreach and Education: We are working with partner organizations and individual schools to develop school programs and to create consistent water-quality monitoring protocols among schools.
- Economic Sustainability through the Community Collaborative: Businesses networking within the watershed to identify local markets and promote the watershed in a sustainable manner.
- Capacity Building: We are building a long lasting, independent organization that facilitates communication between government agencies and their citizens. In five years we will have six stream teams, 19 towns contributing to the Partnership and a contributing membership.

III. Accomplishments

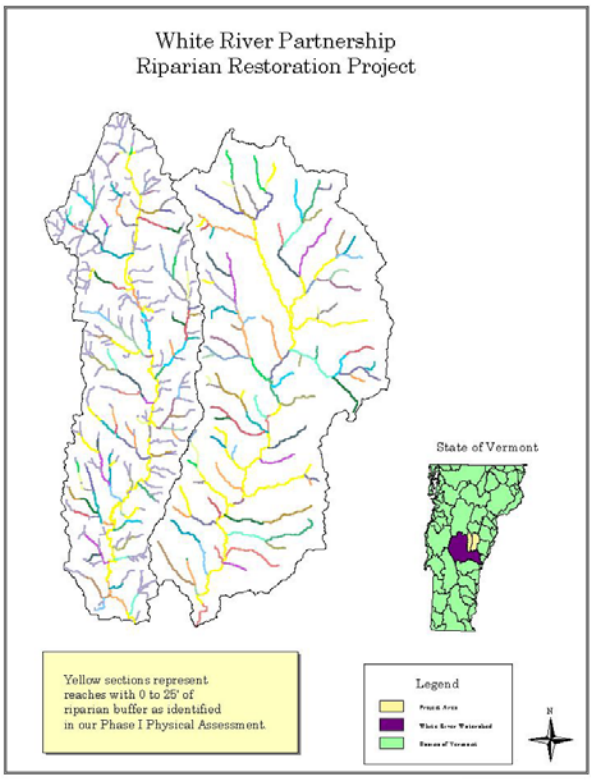
Locally Led Watershed Assessment:

Water Quality Monitoring

Thirty volunteers collected water quality data at 23 River Stations throughout the watershed on a weekly basis for the second year in a row. Volunteers sampled each Wednesday of the summer for *E. coli,* turbidity, and conductivity. Thermographs were stationed at each of the sites to record water temperature every hour. In addition to the WRP's thermographs, this year we coordinated with the State of Vermont department of Fish and Wildlife as well as with the U.S. Forest Service to increase the number of thermographs in the watershed to 38. *E. coli* data was shared with health officers throughout the watershed and was available to the public via the World Wide Web. We worked with two communities in the watershed who were concerned about high *e.coli* counts in their towns.

Thermographs were placed at our 23 River Stations throughout the watershed.

Assessment Intern
Becky Hooper, an Environmental Science major from Eckerd College in Florida was our first summer Assessment Intern. Becky coordinated the volunteer water quality monitoring program and also learned how to do cross sectional surveys at our monitoring stations throughout the watershed. These cross sections are an important piece of our growing understanding of the dynamic White River system and key to our long term monitoring program.



An example of how the Phase I data assists us with project selection.

Phase I Assessment
The Vermont Agency of Natural Resources, one of our most active partners, has developed a three phase river assessment process to help characterize the watersheds of the state and to assist with restoration project selection. The first phase of the assessment compiles existing geographic data and breaks the river into reaches based on valley slope and width, river sinuosity, tributary influence and geologic materials. The reaches provide the framework for the rest of the Phase I, II and III analysis. The Phase I assessment is a ten step process that, when complete, allows the user to identify reaches based on certain criteria. We have completed the entire ten step Phase I assessment on three sub-watersheds and steps 1-3 on the remaining three.

The Phase I data was used to identify river reaches with less than 25' of riparian buffer on either bank and soils with a low erodability rating. We will target these areas in the second round of our Riparian Restoration Project, focused on the Middle and First Branches. (See adjacent map.)

Phase II Field Assessment
Twenty-five volunteers were trained in a day and a half to use the Phase II physical assessment developed by the State of Vermont. They then committed to walking between one and four reaches of the First Branch or the middle area of the main stem, collecting field data on those reaches.

This information will be used to assist with restoration project selection as well as in the State's regional curve database.

Volunteer physical assessment training in May 2002.

Stream Corridor Restoration:

Tree Planting Projects

This year the WRP was able to plant over 5,000' of riparian buffer with trees and willow. Most of these plantings were done on restoration projects that we completed last year. 238 volunteers planted 2,348 trees and numerous willows at nine sites throughout the watershed. Our tree planting program has grown each year and has started to attract outside funding interest see the "Upper River Stewardship" project below.

The Randolph Rotary Club helped plant trees at last years' Randolph Recreation Park restoration project.

River Restoration

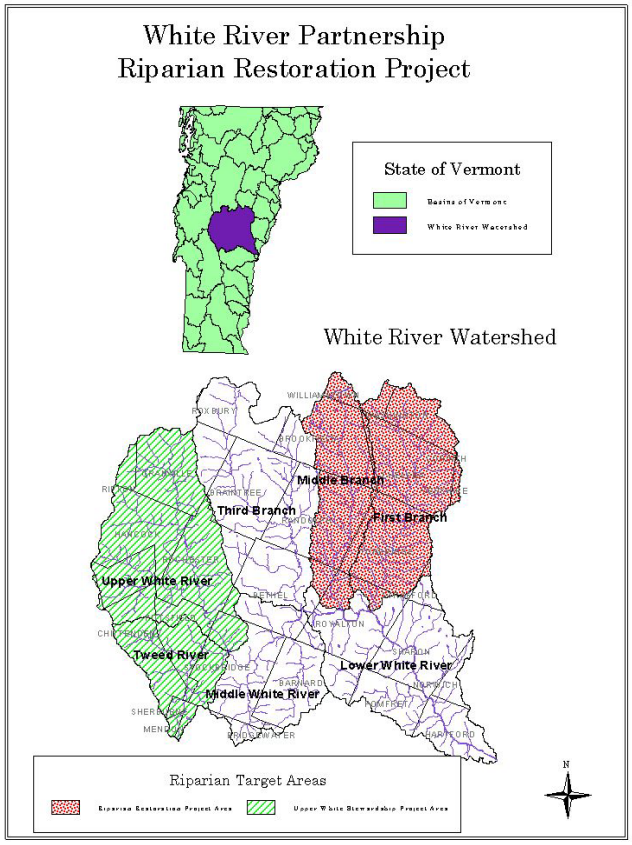
The Down Stream Team completed their first restoration project at the Welch's Hardware store in South Royalton. This project is at a very visible location near the village of South Royalton. The Upper Valley Community Land Trust is working with the team to secure public access to the site. The project was 200' of stream bank stabilization in a heavily used area of the river.

A small stabilization project on the Jail Branch jump-started the First Branch Stream team. A Chelsea Selectman called to inquire if we could assist with a serious head cut that was moving up through the village. Thirty feet of river was stabilized in the downtown area of Chelsea. We now have a thriving new stream team on the First Branch!

We start 'em young at the WRP!

2003 Restoration Projects

We knew that the four big restoration projects that we wanted to complete were going to take a lot of staff resources from the beginning, that's why we contracted with the National Wildlife Federation to coordinate two of them. What we did not anticipate, however, was that our partners would be drawn out of the watershed to other projects this year and be less available for survey and design work. Given the overwhelming load on all of our supporting partners, we feel good about having surveyed and started design work on the 13,400' of what will prove to be great restoration work in 2003.



Riparian Buffer Project

The Upper River Stewardship project is a fine example of partnerships at work. The WRP in conjunction with the National Wildlife Federation (NWF), has contacted over 130 landowners in the Upper White River sub-watershed to educate them on the benefits of riparian buffers and to deliver existing partner programs that are available to assist landowners with tree plantings. NWF raised money to help property owners, including farmers, with their portion of the cost share that is usually required for Natural Resource Conservation Service programs. Next spring WRP volunteers will begin planting trees on the over 30 properties that are interested. The original goal was to plant trees on three miles of riverbank. We believe that we will exceed this.

This project was selected by congress as one of the USFS Stewardship Contracting pilot projects allowing us to test "authorities" that typically direct Forest Service activity. We are looking to swap use of USFS lands for farmland taken out of production along riparian areas. Next year we plan to expand the buffer program to the First and Middle Branches of the watershed.

Outreach and Education:

Teacher's Workshop

Seven teachers from five watershed schools participated in the second teacher training for water quality monitoring. The teachers, from elementary, middle, and high schools, learn about the watershed, expand their knowledge of water quality protocols and learn about the WRP's 23 River Stations. We encourage the teachers to adopt a Station, building on the volunteer and professional data collected at these sites. Our goal is to have uniform water quality data collection methods throughout the watershed and have the individual schools upload their data to their station.

Teachers get their feet wet looking for benthic macro invetebrates.

Green Up Day

Over 320 WRP volunteers collected trash in conjunction with Vermont's statewide Green Up Day in May. With all existing stream teams participating, the WRP was able to win $600 of free radio time at a local station. Advertisement production was included and spawned the creation of "Watershed Woman"; a great advertising success and kickoff for our watershed wide membership campaign.

The Upper River Stream Team and the Rochester School show off their spoils.

World Wide Web Presence
Our web page (www.whiteriverpartnership.org) is up and running with membership information, water quality data and information about the Partnership in general. Please visit us!

Recreational Pole and Paddle Club
The "Thalwaggers" Pole and Paddle club was established as the official water based recreation team of the WRP. Weekly paddle clinics were held in South Royalton as well as numerous weekend paddles throughout the year. The Thalwaggers have proven to be a great way to recruit new volunteers to the Partnership.

Making a Statement in the Watershed
We have developed a professional display and we use it throughout the watershed at events like the Tunbridge World's Fair. We also placed this educational sign at the Randolph Recreation park restoration project, where many watershed residents recreate. Finally, we held a stream team mixer to introduce folks from throughout the watershed and to start construction of "The Fish," our papier-maché fish float that will be available to all stream teams for parades and events.

Second Annual Membership Meeting
Over 50 people came out to celebrate the Partnership's successful year at our Second Annual Membership Meeting. The meeting is a time for volunteers throughout watershed to get together, share stories and have a wonderful meal. It's a way to say "Thanks for all of your hard work!"

"Buck Thorn" an exotic invasive plant, was a special guest at the party.

Treasurer of the Board, Richard Kolehmainen, his wife Beth and Ashar Nelson enjoy socializing.

The Vermont Institute of Natural Science Owl and Hawk program was the highlight of the evening.

The meeting was at the end of October and raptors provided the entertainment, so it made sense to celebrate Halloween at the same time. Guests were encouraged to come in costume with "watershed" as the theme.

WRP Jack O' lantern!

Economic Sustainability through the Community Collaborative:

Watershed map in full use

The watershed map developed by the community collaborative last year was put to good use this year with only a few of the 5,500 copies remaining. Residents, businesses and visitors are using the map to learn more about their watershed and get involved with the Partnership.

International journalists visit WRP

The WRP was highlighted in a State Department sponsored international journalists tour of communities working toward sustainability. The Bowl Mill in Hancock, Vermont, operating continuously since 1857, was a key stop in our watershed. As was a stay at the now famous Liberty Hill Farm, in Rochester. Liberty Hill Farm is a real working Vermont dairy farm that welcomes guests year round.

Northern Forest Gateway Communities Workshop

The WRP was asked to present our work at the Northern Forest Gateway Communities workshop in Waitsfield, VT. These workshops are held regionally for communities that are on the edge of significant natural areas, like National Parks and National Forests. The goal of the workshop is to assist communities that are struggling to maintain quality of life in the face of development. The Conservation Fund and the Conservation Study Institute housed at the Marsh-Billings-Rockefeller National Park in Woodstock, Vermont, would like to use the WRP model in an educational video they are producing.

Capacity Building:

Serving the communities of the watershed

Each year more towns in the watershed become familiar with the Partnership and work closely with us in their community. This past year, we worked with the towns of Rochester, Granville, Hancock, Sharon, South Royalton, Chelsea, Randolph, Hartford and Bethel. Projects included water quality monitoring, stream bank restoration, and putting Supplemental Environmental Program funds (state fines) to work in their communities. These towns have also made modest commitments to financially support the Partnership.

Stream Teams

Stream Teams are the heart and soul of the WRP. Five fully functioning stream teams are operating throughout the watershed, only the Middle Branch team remains to be started. Stream Teams work in their communities to assess stream corridor conditions, make contact with private landowners, identify restoration and protection projects and rally partners and volunteers. Each stream team has a different flavor and focuses on its own priorities. These range from planting trees, to restoration projects, to outreach events with landowners and other citizens. This year we added the First Branch Stream Team and the In-Between Stream Team, bringing over 20 new, very active volunteers into the Partnership and spreading our influence to five sixths of the watershed.

Contributing Members

Our base of membership support continues to grow, not only through the hundreds of volunteers who work for the Partnership, but also through our paid membership. We have just completed a watershed wide mailing to all property owners that has already brought us many new members.

IV. Challenges and Change

In the past, we have struggled to get our restoration projects onto a one-year track, from project identification, survey, design, permitting and construction. This year we were unable to get any of our larger projects completed during the construction season. The primary reason for this is our dependence upon partners who have statewide commitments. These folks have given a lot of time in the last few years to the White River Watershed and the Partnership but they were drawn away from the watershed this year. By the time we realized the impact this was having on our ability to complete the years' projects, it was too late.

In the past we have depended upon our "Technical Team" to implement all steps necessary for restoration project completion. We now realize this is not realistic and have identified the survey portion of projects as the "weakest link". We are starting to identify interested survey companies in the watershed that could be trained to conduct geomorphic stream surveys. We plan to begin this process this fall and start again early in the spring.

Staff turnover in the past year has affected our ability to focus on the work program and achieve consistency in our efforts. In April, our Outreach Coordinator of a year and a half left us to attend graduate school and her replacement did not last three months, leaving at the end of July 2002. We are currently in the hiring process for the second time this year.

V. Future Actions and Opportunities

Locally Led Watershed Assessment:

- Working with the State of Vermont, Agency of Natural Resources, and a private GIS consultant, we will complete our Phase I Watershed Assessment, started last winter and in use throughout much of the watershed;
- Two sub-watersheds will begin the Phase II Physical Assessment in the Summer of 2003;
- An intern will be hired to oversee the continuation of the Water Quality Monitoring program and cross section data collection for the 2003 field season;
- Project selection will continue to be informed through the assessment.

Stream Corridor Restoration:

- A minimum of four designed and constructed river restoration projects will be completed during the field season. The Partnership is looking to increase our capacity in this area and will contract with local survey crews to this end;
- 3,000 trees will be planted along three miles of stream bank;
- At least two smaller restoration projects will be completed during the 2003 field season.

Outreach and Education:

- The Teacher's Workshop will continue with other schools in the watershed;
- The Down Stream Team will rally the community around restoration of the Broad Brook.

Economic Sustainability through the Community Collaborative:

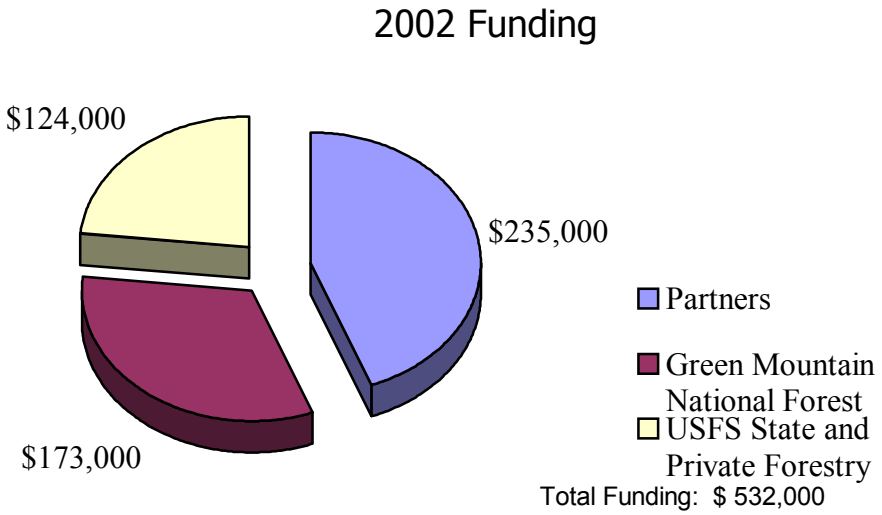
- The Community Collaborative will renew their efforts to link all of the businesses in the watershed by building a resource binder that will include information on all of the products and services available in the watershed;

- The Forestry Work Group will gain structure and a vision for the future.

Capacity Building:

- The Middle Branch Stream Team will be formed this Winter;
- Six more towns will be asked to contribute to the water quality monitoring efforts of the Partnership;
- We will expand our efforts to gain new funding sources for our work.

VI. Partnership Funding/Investment in the Watershed



Watershed-wide Expenditures

Partnership Goal	Funding
Locally Led Watershed Assessment	$100,000
Stream Corridor Restoration	$250,000
Outreach and Education	$50,000
Economic Sustainability	$50,000
Capacity Building	$82,000
Total	$532,000.00

*****These are anticipated expenditures and partner contributions. Actual final grant agreements have not been issued. *****

VII. Partnership Contacts

For more information contact: Amy Sheldon, (802) 767-4600 or wrpamy@together.net; Steve Roy, (802) 747-6739 or sroy@fs.fed.us.