United States Environmental Protection Agency

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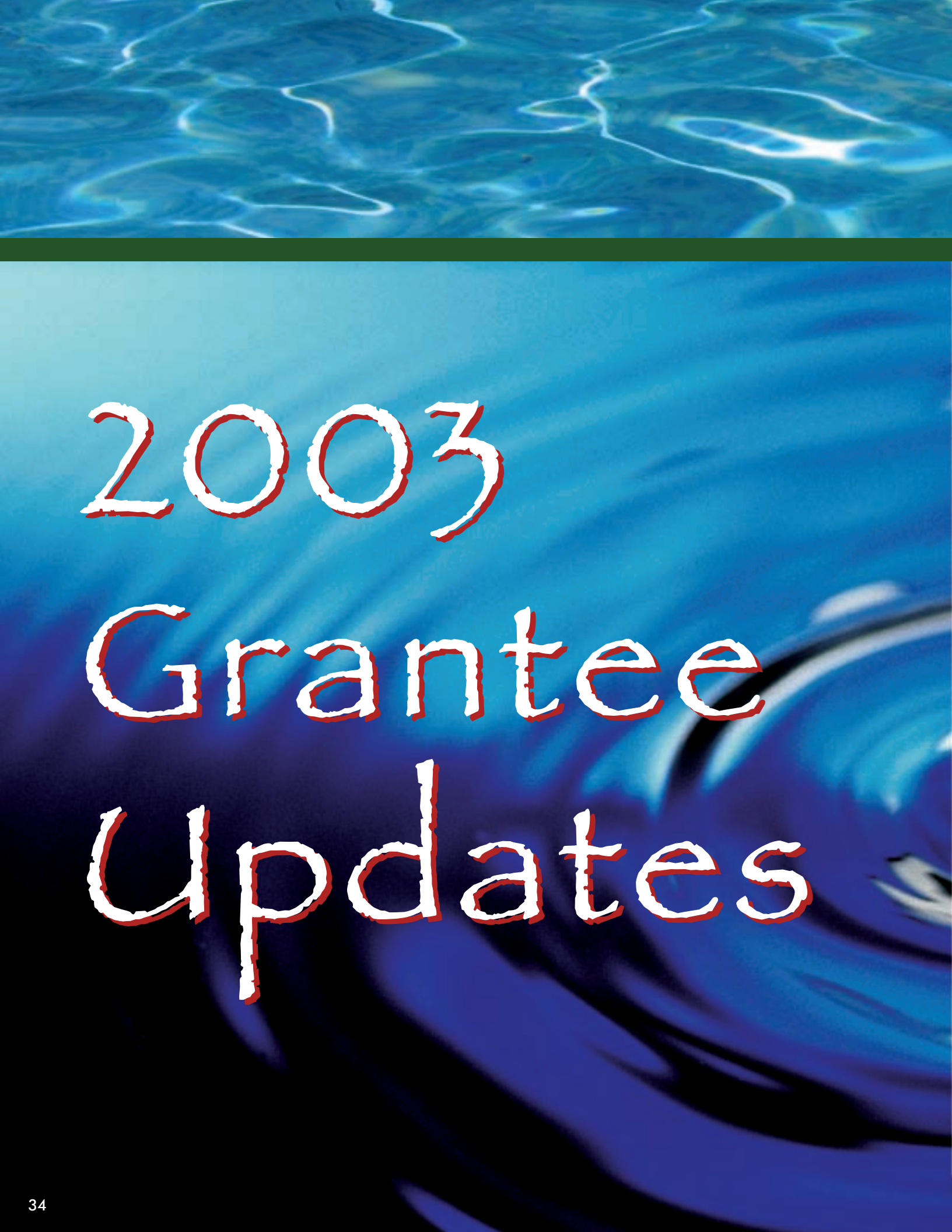
EPA'S TARGETED WATERSHED GRANTS 2005 ANNUAL REPORT

2003 Grantees

December 2005



2003 Grantee Updates

Bayou Bartholomew

AR

2003 Grantee **UPDATE**

MAJOR ENVIRONMENTAL CHALLENGES

- Excess sediments
- Loss of habitat for aquatic and terrestrial species
- Log jams affecting stream flow
- Agriculture, deforestation, and land clearing activities

The Bayou Bartholomew Alliance Captain.

PROJECT HIGHLIGHTS

The Bayou Bartholomew Alliance is addressing these issues through various improvement projects focused on protecting and preserving the area's vast diversity of aquatic life. Thus far, the alliance's accomplishments include:

- Removing 148 tons of trash from the bayou with the help of citizen volunteers
- Redesigning an old weir to demonstrate to landowners how weirs should be constructed to allow for fish and small watercraft passage, and to help maintain stream function
- Continuing to provide hardwood tree seedlings at no cost to landowners to restore riparian corridors
- Establishing a conservation easement program to protect existing riparian hardwood forests, allowing landowners the opportunity to preserve the forests while still obtaining some financial benefits
- Completing a carbon site feasibility analysis and an analysis of areas of high aquatic biodiversity
- Conducting workshops to educate landowners about methods to minimize impacts on water quality

Canoeing among the cypress trees.

"By taking a realistic approach, the Bayou Bartholomew Alliance has helped to educate landowners like myself on how to protect and improve this important ecosystem with methods in harmony with my agricultural and recreational objectives. There is definitely an improvement in the aesthetic appearance of the Bayou due to the Alliance's trash removal efforts. Continued improvements to the delicate fishery and bird habitats are certain to produce far reaching benefits as well."

– John McClendon large landowner along Bayou in Drew County

2003 Grantee
UPDATE

Charles River

MA

MAJOR ENVIRONMENTAL CHALLENGES

- High fecal coliform bacteria levels
- Water shortages
- Rapid development and urbanization

Cisterns help conserve water and reduce runoff.

PROJECT HIGHLIGHTS

The Charles River Watershed Association (CRWA) is committed to utilizing innovative approaches to reduce polluted discharges, increase recharge of rainwater, and restore fisheries. To help advance these restoration objectives, projects emphasize the use of flow trading, stormwater recharge, education, habitat, and research. To date, the association has:

- Installed fourteen 400-gallon, residential cistern-drywall water retention systems to allow homeowners to use stored rainwater for irrigation or other uses
- Conducted in-stream bacteriological monitoring, collected precipitation data, and implemented statistical computer models to predict water quality levels
- Continued to report water quality conditions by flying color-coded flags at boathouses during the summer recreational season
- Completed an economic analysis of flow trading in the basin and water banking model to determine subbasin water quantity deficits
- Developed a computer model of the Upper Charles River that simulates the water budget in terms of impervious areas, water consumption, drinking water withdraws, and other uses
- Helped launch stormwater mass media educational campaign

Blue flags fly over the Charles River when water quality is good.

"The Charles River Watershed Association has played a key role in improving the water quality of the Charles River for over two decades. We are seeing a cleaner Charles River every year."

– Ralph Boynton
Charles River Flagging Program volunteer

Christina Basin

PA, DE

2003 Grantee **UPDATE**

MAJOR ENVIRONMENTAL CHALLENGES

- Point and nonpoint source pollution
- Toxic chemicals
- Fish consumption advisories
- Habitat loss
- Excess sediment and nutrients

Pike Creek stream restoration project.

PROJECT HIGHLIGHTS

The Christina Basin Clean Water Partnership is making strides to reduce pollution through agricultural best management practices, stream bank restoration, stormwater management, and residential landscape and runoff control. To date, the partnership has:

- Developed site specific nonpoint source remediation and monitoring programs
- Completed one key stormwater retrofit project
- Completed two nutrient management plans to manage farm runoff
- Continued enlisting local property owners in residential landscape and runoff control efforts as part of its Smartyard™ Program
- Completed site selection for three stormwater retrofits, two contiguous stream restorations, and seven wetland and stream restoration projects

Rain gardens provide an attractive, environmentally friendly landscape.

"With the implementation push provided by the EPA's Watershed Grant Program, the partners and residents of the Christina Basin have a renewed commitment to achieve the water quality management goals established for the Christina Basin."

– Pamela V'Combe
Watershed Planner
Delaware River Basin Commission

2003 Grantee
UPDATE

Clark Fork-Pend Oreille

MT, ID, WA

MAJOR ENVIRONMENTAL CHALLENGES

- Degradation of riparian areas
- Excessive nutrients and algae growth
- Rapid population growth and urbanization

Macroinvertebrate sampling on Warren Creek.

PROJECT HIGHLIGHTS

The Tri-State Water Quality Council is focusing both on reducing nutrients that are causing excessive algae blooms and threatening to remobilize heavy metals contamination, and on addressing the effects of population growth on water quality. It is working with the Blackfoot Challenge, the Flathead Basin Commission, and the Watershed Restoration Coalition to improve livestock management practices, expand water quality monitoring efforts, and complete restoration work on key tributaries to the Clark Fork River and Pend Oreille Lake. Thus far, the council and its partners have:

- Installed six off-stream livestock watering tanks, miles of riparian fencing, and over 37,000 feet of pipeline to divert cattle away from stream and river corridors, thereby reducing sediment and nutrients
- Initiated streambank restoration measures to reduce erosion and sedimentation, restore riparian habitat, and improve stream channel morphology on over five miles of streams
- Implemented a land application system for dairy cow manure effluent at a major dairy farm to reduce phosphorous loading
- Expanded monitoring programs, analyzed and assessed trends in nutrients and algae growth, and developed a nutrient pollutant model

Stream restoration work on Warren Creek, a tributary to the Blackfoot River.

"From growth and urban issues to ranching and rural issues, this grant enabled our basin-wide organization to form a new partnership with three large, existing watershed groups in our main tributary rivers, to address both point and nonpoint sources with some 15 on-the-ground projects, to leverage a vast amount of matching funds, and to monitor our progress towards improving water quality."

– Diane Williams
Executive Director
Tri-State Water Quality Council
Sandpoint, Idaho

Cumberland Basin

TN, KY

2003 Grantee **UPDATE**

MAJOR ENVIRONMENTAL CHALLENGES

- Increased development and impervious surfaces
- Water shortages due to rapid stormwater runoff
- Excessive sediment and erosion

Collecting macroinvertebrates to measure stream quality.

PROJECT HIGHLIGHTS

The Cumberland River Compact's (CRC) Building Outside the Box (BOB) Project promotes sustainable building techniques and low impact development principles through partnerships and education. Developers are embracing the project to such a degree that impacts are expanding beyond the BOB sites to across the region. CRC achievements, thus far, are wide ranging.

- Now successfully launched, BOB boasts a list of participating professions that has grown from 30 to more than 110 members, including many private, public, and nonprofit organizations.
- Sustainable building workshops have been held for more than 60 homebuilders.
- The project has educated a host of professional associations about BOB Model Site Design principles focused on protecting water quality.
- The first certified low-impact house has been built and a multiple-family residence project completed.
- BOB development sites have increased from two to four and a second partnering developer with a 600-acre, 1,000-home development site has joined the project.
- A matching grant to carry out groundbreaking site runoff monitoring on BOB sites has been secured.

A BOB housing development incorporates low impact principles.

- The Southeast Watershed Assistance Network, an interactive website (www.watershed-assistance.net) to transfer success stories and lessons learned to watershed groups and developers in the southeast and across the nation, is up and running.

"We're excited and encouraged about the level of interest and commitment to water-friendly, low-impact housing from the development community."

– Margo Farnsworth
Executive Director
Cumberland River Compact

2003 Grantee
UPDATE

Dunkard Creek

PA, WV

MAJOR ENVIRONMENTAL CHALLENGES

- Acid mine drainage
- Toxic chemicals
- Habitat loss

Community outreach is an important part of the Dunkard project.

PROJECT HIGHLIGHTS

The Greene County Watershed Alliance is collaborating with Stream Restoration, Inc. to address the impacts from acid mine drainage using clean-up technologies, partnership building, and hands-on environmental education. To date, the alliance has:

- Cleaned up an illegal dumping site
- Formed a broad-based watershed organization called The Friends of Dunkard Creek that will bring together industry, environmentalists, scientists, government agencies, and local citizens to help solve the water quality problems
- Conducted numerous presentations to educate the public about the negative environmental impacts of acid mine drainage
- Created educational displays on acid mine drainage, passive wetland treatment systems, and water quality

Fishing is a popular recreational pursuit, but species are in decline because of acid mine drainage.

"The local chapter of the Rotary Club has donated to the Greene County Watershed Alliance a Memory Medallion that will be installed at the EPA project site. It will provide on microchip a historical description of the Dunkard Targeted Watersheds Grant project and will be accessible to the public with the use of a Personal Digital Assistant."

– Terri Davin
Greene County Watershed Alliance

Great Miami River

OH

2003 Grantee

UPDATE

MAJOR ENVIRONMENTAL CHALLENGES

- Excess sediments and nutrients
- Alterations to the channel shape
- Loss of streamside vegetation
- Degradation of habitat for aquatic life
- Urban stormwater runoff
- Flood control

Site of Hidden Hills wetlands enhancement project.

PROJECT HIGHLIGHTS

The Miami Conservancy District (MCD) is restoring valuable water resources by implementing a sound watershed management approach devoted to projects focused on reducing nutrients and sediments through performance-based cost sharing and innovative conservation practices, reducing urban stormwater runoff, and providing incentives for communities to implement conservation-minded development. Through a unique network of diverse partnerships, the district has:

- Completed water quality data collection plans for seven project sites
- Identified project sites and established agreements with participating landowners
- Finalized project designs and construction plans
- Developed and conducted education and outreach programs to educate local communities about water resource protection efforts

Landowners discuss wetlands conservation practices.

"The Hidden Hills project will restore and expand a wetland that will reduce pollutants to the Hebble Creek and Mad River, and function as wildlife habitat, flood detention, and an outdoor classroom."

– Pete Bales
City of Fairborn
Parks and Recreation
Superintendent

2003 Grantee
UPDATE

Greater Blue Earth River

MN, IA

MAJOR ENVIRONMENTAL CHALLENGES

- Excess nutrients and sediment
- Algae blooms
- Loss of wetland habitat and aquatic life
- Lost recreational opportunities

Rain gardens reduce runoff and provide aesthetic benefits.

PROJECT HIGHLIGHTS

The Three Rivers Resource Conservation and Development Council is actively demonstrating effective ways to improve water quality within the basin as well as downstream through partnership-based projects focused on conservation cost-share, wetland restoration, and public education. To date, the council has:

- Awarded 107 cost-share contracts for conservation practices
- Implemented 180 on-the-ground conservation practices
- Encouraged third crop rotation to minimize erosion through participation at County Fairs with a project called "Conservation on Wheels"
- Worked with various partners to restore 139 acres of wetlands to help improve habitat and other valuable functions
- Collaborated with the University of Minnesota, Minnesota Pollution Control Agency, and Martin County to monitor restoration sites and conduct a comparative watershed analysis of corn soybean rotation vs. same with Best Management Practices
- Conducted its first, of several, nutrient trials
- Conducted 36 educational presentations for approximately 1,200 people on erosion control and rain gardens
- Constructed four rain gardens, which will help reduce runoff and improve filtration
- Established a thriving network of citizen stream monitoring volunteers

"The Targeted Watershed Grants Program brought partners of the Greater Blue Earth Watershed closer together. This occurred through the application process and even more so with implementing the workplan. Unification and partnerships are major components of what watershed management is all about."

– Lauren Klement
Greater Blue Earth River Targeted Watersheds Grant Coordinator

Hanalei Bay

HI

2003 Grantee **UPDATE**

MAJOR ENVIRONMENTAL CHALLENGES

- Landslides
- Fragile coral reef ecosystem
- Excess sediments and nutrients
- Feral pig landscape damage
- Loss of habitat and aquatic life
- High levels of fecal coliform indicating bacteria
- Agriculture and ranching activities
- Groundwater contamination by sewage

Scientific diver removes coral larval panels in Hanalei Bay each summer to estimate coral recruitment rates.

PROJECT HIGHLIGHTS

The Watershed Hui is committed to restoring the health of their watershed through a community-based approach geared towards improving wastewater treatment of individual septic systems and a centralized wastewater facility. Additional projects are aimed at extensive public involvement, research, and education. With the help of many diverse stakeholders, the Hui has:

- Solicited community input on a prioritized list of cesspools to be upgraded to septic systems
- Finalized site engineering of replacement septic systems and initiated construction on key sites
- Continued to work with government agencies, local organizations, and university scientists to assess non-point sources of pollution on a watershed basis
- Worked with commercial firms to design various centralized wastewater treatment options
- Solicited community input and achieved consensus for long-term solutions, including the use of constructed wetlands as a method of treatment

Hydrologist Matt Rosener measures streamflow in a small tributary of the Hanalei River.

"The work the Hui is doing with the money from EPA is helping us learn about the problems in the water. Fixing these will result in more fish for our families."

– Jeff Chandler fisherman and Hui member and Chair of Hui Ho'omalu I Ka'Aina, a local community stewardship group

2003 Grantee
UPDATE

Lower Columbia Estuary

OR, WA

"In our collaboration with the Lower Columbia River Estuary Partnership, Targeted Watersheds funding has been critical to accomplish significant restoration work in the Columbia River estuary. It has been thrilling to see the water flowing on the land, the fish returning to the tidal channels, and the return of native wetland vegetation (and many other species of wildlife) to sites that have been disconnected from the river and the estuary for over 100 years. We cannot wait to see what the future holds for these habitat areas."

– Ian Sinks
Stewardship Coordinator, Columbia Land Trust

MAJOR ENVIRONMENTAL CHALLENGES

- Threatened and endangered species
- Loss of wetlands and habitat
- Rapid development
- Runoff of toxic and conventional pollutants
- Excess sediments

Volunteers with the Scappoose Bay Watershed Council use trap nets to assess fish populations in Scappoose, Oregon.

PROJECT HIGHLIGHTS

The Lower Columbia River Estuary Partnership is protecting and restoring the river and its critical ecosystems through collaborative projects emphasizing on-the-ground restoration, monitoring, and education. To date, the partnership has:

- Leveraged funding for restoration and protection of more than 2,000 acres
- Leveraged $3.8 million dollars in cost-share funds to complete four restoration projects
- Completed restoration on 1,265 acres
- Completed all phases of a multi-site project, including the reconnection of 555 acres of floodplain, removal of four tidegates, and two culverts
- Conserved 173 acres of land and developed a cattle grazing management plan for 300 additional acres

Ian Sinks of the Columbia Land Trust leads a stakeholder tour of the Grays River Conservation and Restoration project in Washington.

- Removed invasive plants and planted native species on 22 acres of wildlife refuge
- Established a long-term restoration site maintenance agreement with new partners

Manistee River

MI

2003 Grantee **UPDATE**

MAJOR ENVIRONMENTAL CHALLENGES

- Extensive logging
- Loss of vegetation
- Extreme erosion
- Excess sediments
- Loss of habitat for aquatic species
- Potential extinction of threatened or endangered species

Streambank restoration projects will improve water quality and habitat.

PROJECT HIGHLIGHTS

The Little River Band of Ottawa Indians is focusing on reducing pollution problems attributable to extensive logging, and on revitalizing impaired streambanks and road-stream crossings to improve water quality. To date, they have:

- Completed three stream bank restoration projects
- Completed one road crossing to reduce streambank erosion
- Improved river access and minimized erosion to two sites by building trails and steps in high traffic areas
- Concluded preliminary water quality investigations to improve sturgeon habitat and channel conditions
- Continued efforts to monitor water quality
- Promoted watershed health through numerous presentations addressing water quality issues and public involvement

Assessing the fish species helps measure water quality improvements.

"It is through this continued evolution of understanding that we strive to facilitate lasting solutions which will ensure that the next seven generations of our people proceed, complete with our inherent cultural identity intact; an identity which humbly defines us as a small yet intrinsic element to the great scheme of life that was placed here to flourish along the Manistee."

– Jimmie Mitchell
Tribal Natural Resources Commissioner

2003 Grantee
UPDATE

Meduxnekeag River

ME

MAJOR ENVIRONMENTAL CHALLENGES

- Soil erosion from agriculture and livestock activities
- Instream impairments
- Loss of fishery habitat, spawning, and nursery areas
- High levels of E. coli bacteria from improper sewage connections

Aerial view of the watershed.

PROJECT HIGHLIGHTS

The Houlton Band of Maliseet Indians are using an innovative combination of winter cover crops, mulching practices, and storm drain management to improve water quality. Progress so far includes:

- Assisting 20 growers to plant winter cover crops and apply mulch on 1,809 acres, saving an estimated 542 tons of soil
- Conducting a seminar, attended by 24 farmers, about mulching practices in potato growing
- Conducting a seminar, attended by 13 farmers, to demonstrate the use of innovative winter cover crops and mulching practices
- Initiating work on Winter Cover Study by compiling input from six growers
- Identifying and removing a sewer line connected to a storm drain with high levels of bacteria to prevent water contamination

The TWG project is helping minimize sediment buildup by working with farmers on conservation practices.

"This conservation practice (mulching) is the most 'makes sense' program we've done in years. I've even applied it on my own—on a farm next to the river but outside the project area."

– Danny Corey
Farmer

2003 Grantee
UPDATE

Narragansett Bay

RI, MA

MAJOR ENVIRONMENTAL CHALLENGES

- Land and coastal development
- Toxic metals and bacterial pollution
- Hypoxic conditions due to nutrient overloading
- Fishery declines
- Loss of shellfish and other aquatic organisms

Fish ladder at Bradford Dam will help restore migratory fish runs. (Wood-Pawcatck Watershed Association)

PROJECT HIGHLIGHTS

The Partnership of Narragansett Bay is reducing sediment and nutrient loadings to improve water quality by focusing projects on fish run sustainability and restoration as well as on research and education. To date, achievements include:

- Funding a mariculture facility that has produced 26,000 seedlings planted over four acres at two sites, seedlings that will support eelgrass restoration without additional pressure on natural eelgrass beds
- Securing additional mariculture funding from project partners
- Donating numerous plants to support an elementary school's eelgrass program
- Completing a fish passage feasibility study to support anadromous fish and ecosystem restoration
- Conducting pre-project monitoring to evaluate numerous treatment technologies for reducing excess pathogens and nutrients
- Engaging project partners and volunteers in site monitoring activities

Eelgrass seedlings counted and ready for transplant. (Univ. of Rhode Island Coastal Institute and Graduate School of Oceanography)

"Hundreds of years of industrial development have virtually destroyed migratory fish runs on the river. The Targeted Watersheds Grant is helping watershed communities to repair this damage by providing funding to restore native shad and herring runs to the lower Pawtuxet River. The project will benefit the entire bay ecosystem, as well as Rhode Island's commercial and recreational fisheries."

– Tom Ardito
Rhode Island Department of Environmental Management

2003 Grantee
UPDATE

Raritan River

NJ

MAJOR ENVIRONMENTAL CHALLENGES

- Aquifers highly vulnerable to drought
- Rapid development and urbanization
- Reduced ground water recharge
- Loss of wetlands and riparian areas
- Increased pollutant loadings and stormwater flows
- High fecal coliform bacteria levels

Project partners celebrate a successful restoration at Mulhockaway Creek.

PROJECT HIGHLIGHTS

The Stony Brook-Millstone Watershed Association, in partnership with the New Jersey Water Supply Authority, is carrying out a comprehensive watershed management plan to address these environmental problems. Projects are focused on restoration, protection, and pollution prevention. Accomplishments so far include:

- Partnering with 23 municipalities to implement new land ordinances to protect and preserve natural resources
- Working with nine local businesses, 10 golf courses, and 20 residents through an innovative River Friendly pollution prevention program to address water conservation through public involvement
- Restoring stream corridors with vegetated buffers to improve water quality and provide wildlife habitat
- Continued biological monitoring to assess stream quality
- Conducting outreach activities to educate the public and local officials about ways to improve water quality

A restored streambank.

"Thank you so much for your guidance in helping the Township achieve an important environmental protection milestone through the enactment of the [stream corridor] ordinance protecting environmentally sensitive areas."

– Bob Wagner
Mayor
Hillsborough Township

Rathbun Lake

IA

2003 Grantee

UPDATE

MAJOR ENVIRONMENTAL CHALLENGES

- Excess sediments and nutrients
- Erosion along stream banks and shoreline
- Algal blooms
- Excess pesticides and herbicide atrazine
- Failing septic systems

Forage and livestock workshop.

PROJECT HIGHLIGHTS

The Rathbun Lake and Water Alliance is reducing water quality impairment through collaborative projects focused on agricultural best management practices, on-the-ground restoration activities, innovative technology, and education. The alliance and its partners have to date:

- Developed and applied Geographic Information System (GIS) technology to identify priority land that is the source for more than 70 percent of the sediment and phosphorous entering Rathbun lake from the watershed
- Assisted more than 200 farmers to evaluate and plan best management practices, well over half of whom are applying conservation practices to nearly 6,500 acres of land, including terraces, grade stabilization structures, and water and sediment control basins
- Conducted farm demonstrations, field days and workshops for more than 300 farmers on alternative uses for priority land, and on forage and livestock production as an economically viable alternative to row crop agriculture

The construction of a terrace will reduce sediment and phosphorus runoff.

- Leveraged more than $4 million from project partners to provide technical and cost share assistance to farmers to apply best management practices for priority land
- Leveraged an additional $4 million from project partners to restore 1,700 acres of wetland areas that will benefit water quality

"Since we bought our farm in 1998, we've wanted to do something about the sediment runoff. We don't want our farm at the bottom of the lake . . . stewardship of the land is important. With this [Rathbun Lake Special Project] funding, we can now afford to do something about it. We are very appreciative of the efforts of this Alliance."

– Charlene Vote, Monroe County farmer, Rathbun Lake Watershed

2003 Grantee
UPDATE

Rio Puerco

NM

MAJOR ENVIRONMENTAL CHALLENGES

- Excess sediment loss and high erosion rates
- Degraded rangeland
- Multi-year drought
- Altered stream channels and stream instability
- Dirt roads that capture and channel runoff

Jute bag structures help stop erosion and the advance of headcuts.

PROJECT HIGHLIGHTS

The Rio Puerco Management Committee is actively addressing these issues through a community-based strategy emphasizing stream restoration, erosion control technology, monitoring, and education. Youth crews were assisted by the New Mexico Youth Conservation Corps and supported by Navajo Chapters. Their accomplishments include:

- Building 25 picket weirs and baffles, as well as 900 "one-rock dams" and other structures to reduce erosion
- Covering 2,600 square feet of ground with lopped branches to check sediments
- Building jute bag structures to stop the advance of headcuts, which entails sewing jute erosion control matting into a long bag filled with wood chips and native soil, then seeding the bags with deep-rooted plant species to hold the slope in place
- Holding two rangeland health workshops and a herding clinic with multiple stake holders to highlight methods to improve grazing lands
- Conducting numerous onsite educational demonstrations for school children and rural residents about the importance of using soil cover to slow erosion
- Demonstrating the effectiveness of goat grazing to control sagebrush and salt cedar

The Rangeland Health Kiosk is used with youth crews to demonstrate the importance of maintaining soil cover to slow erosion.

"Beyond assessing the land's current state, planning a strategy for recovery becomes a priority. In cases where arroyos are removing tons of topsoil, stabilizing the water cycle has to be the priority."

– Grady Grissom
Rancher

2003 Grantee
UPDATE

Upper South Platte

CO

MAJOR ENVIRONMENTAL CHALLENGES

- Vulnerability to forest fires
- Deforestation
- Excess sediments and erosion
- Severe flooding
- Habitat loss

Pete Gallagher of Fin-Up Habitat Consultants and Jeff Spohn, Biologist for the Colorado Division of Wildlife, supervise placement of trees in Eleven Mile Canyon along the South Platte River. The trees provide habitat for trout and improve water quality by stabilizing streambanks.

PROJECT HIGHLIGHTS

The Coalition for the Upper South Platte (CUSP) is still battling the environmental devastation caused by the 2002 Hayman fire. By far, their greatest achievement has been galvanizing numerous volunteers for on-the-ground restoration work. With the help of many, the coalition has:

- Restored a total of 6.5 miles of river on three sites
- Coordinated more than 10,000 hours of volunteer efforts in raking, seeding, and mulching more than 120 acres of burned lands, and in planting more than 2,500 trees and shrubs
- Treated more than 225 acres of property vulnerable to fire

A contractor harvests trees from the Hayman fire area for use in restoring rivers throughout the watershed as part of CUSP's Trees for Trout program

"Our volunteer program is absolutely phenomenal, and I am especially proud of it. Since 2002, we have had almost 60,000 volunteer hours doing on-the-ground work."

– Carol Ekarius
Executive Director
Coalition for the Upper South Platte

2003 Grantee
UPDATE

Upper Susquehanna River

NY, PA

MAJOR ENVIRONMENTAL CHALLENGES

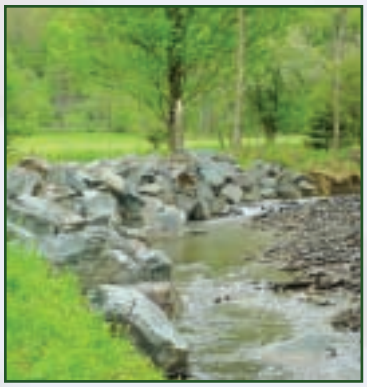
- Steep topography and land use conversion
- Flooding
- Excess sediments and nutrients

Chesapeake Bay Foundation's Farm Stewardship Program site. Funds provided by USC helped plant trees and shrubs in this riparian forest buffer and protect them with tree shelters.

PROJECT HIGHLIGHTS

The Upper Susquehanna Coalition (USC) is implementing a results-oriented approach to protect wetlands and reduce flooding through projects focused on restoration, stewardship, and education. To date, the coalition has:

- Buffered 10 miles of streams, including 82.4 acres of stream-side buffers and 38.3 acres of wetlands
- Continued to restore two wetland complexes totaling more than 30 acres
- Completed road surveys on 65 percent of the project site area to map eroding ditches, which are significant sources of sediment
- Used Geographic Information Systems (GIS) to help locate high priority restoration sites



USC paid for credits to install rip-rap for two stream stabalization projects on Choconut Creek.

"I've been managing grants for 30 years and the Targeted Watershed Initiative has been one of the best for gaining recognition and leveraging additional funds."

– Jim Curatolo
USC Watershed Coordinator

Upper Tennessee River

VA, TN, NC

2003 Grantee **UPDATE**

MAJOR ENVIRONMENTAL CHALLENGES

- Excess sediments, nutrients, toxic chemicals, and bacteria
- Agriculture, mining, and logging activities
- Rapid urbanization
- Loss of aquatic species
- Loss of endangered or threatened species

Upper Tennessee River Roundtable volunteers teach children and their parents about the Save Our Streams method of water quality monitoring in Washington County, Virginia. Children search for bugs that are indicators of stream health.

PROJECT HIGHLIGHTS

Taking an innovative watershed management approach, the Upper Tennessee Roundtable is committed to reducing pollution to enrich the river's vast resource capacity. Projects focus on restoration, technology, conservation, and education. Accomplishments include:

- Removing 9,780 cubic yards of sawdust near an impacted creek and applying it to strip mined land as a soil amendment
- Co-sponsoring six conferences on low-impact development
- Conducting two conferences about environmental emergency response
- Conducting a rain barrel workshop attended by 36 teachers who made 16 rain barrels to aid in stormwater management at schools and homes
- Fencing cattle out of stream and installing water system on a farm to implement a controlled grazing system
- Promoting use of rain gardens to control storm water runoff
- Restoring wetlands and streambanks in a priority region

A stormwater model developed by the Blue Ridge RC&D helps manage runoff from a nearby parking lot. Thanks to TWG funding, this model design is being exported by the Upper Tennessee River Roundtable.

"So far, one of the best outcomes of the EPA Targeted Watersheds Grant is that the Upper Tennessee River Roundtable is expanding and strengthening partnerships. Because of the involvement of citizens, watershed coalitions and agencies, we've been able to meet or exceed some of our objectives."

– George Price
Upper Tennessee River Roundtable Chair

2003 Grantee
UPDATE

Upper White River

MO, AR

MAJOR ENVIRONMENTAL CHALLENGES

- Rapid urbanization and development
- Excess sediments and nutrients
- Agriculture activities
- Faulty septic systems

Volunteers learn how to monitor water quality on the Kings River.

PROJECT HIGHLIGHTS

As it continues to face some of the highest developmental pressures in the region, the Upper White River Basin Foundation is working diligently to reduce pollution. To tackle threats, the foundation is taking a bi-state watershed management approach emphasizing strategic planning, scientific expertise, monitoring, and education. To date, the foundation has:

- Completed several components of a watershed management plan, including a comprehensive watershed assessment
- Held watershed summits to discuss water quality issues
- Distributed follow-up reports to summarize the proceedings of the summits
- Continued to monitor water quality

Floating down the scenic Kings River.

"Our greatest resource, and the single most important factor in the continued economic success in the Ozarks, is the abundant sources of clean water. Whether it's our leading industries of agriculture and tourism, or the continued phenomenal population growth, it all depends on clean water."

– Steve Stewart
Executive Director
Upper White River Basin Foundation