

Backgrounder



Chesapeake Bay Program
A Watershed Partnership

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2003 Chesapeake Bay Small Watershed Grant Recipients

Chesapeake Bay Small Watershed Community Legacy Grants Initiative

The Chesapeake Bay Small Watershed Grants Program provides grants to organizations working on a local level to protect and improve watersheds in the Chesapeake Bay basin, while building citizen-based resource stewardship.

The 2003 grants program continues the Community Legacy Grants initiative begun in 2002. This initiative is intended to encourage the establishment of partnerships that will create a conservation legacy in communities throughout the Chesapeake Bay watershed.

Under the 2003 program, 75 projects from across the Bay watershed have been selected to receive \$2.75 million in funding. Primary support for these projects is provided by the U.S. Environmental Protection Agency; additional support for this year's program has been provided by the National Oceanic and Atmospheric Administration, the USDA Forest Service, the USDA Natural Resources Conservation Service, the Department of the Interior's Office of Surface Mining and the Keith Campbell Foundation for the Environment.

As envisioned under the *Chesapeake 2000* agreement, this legacy includes abundant, diverse populations of fish, wildlife and plants, fed by healthy streams and rivers, sustaining strong local and regional economies and our unique quality of life.

Through the Community Legacy Grants program, five grants of up to \$100,000 are being awarded to truly innovative projects which either restore vital fish and wildlife habitats, develop locally-supported watershed management plans or promote environmentally-sensitive development.

2003 Community Legacy Grants Recipients

Delmarva Coastal Wetland Restoration

Ducks Unlimited, Inc.

Cambridge, Maryland

Community Legacy Grant: \$ 100,000

Partner Contributions: \$ 125,000

Ducks Unlimited, Inc. will restore 400 acres of salt marsh previously degraded by extensive mosquito control ditching in Dorchester County. This project will increase both quantity and quality of tidal habitat available for various wetland-dependent birds, fish and other native aquatic species. A monitoring program will be implemented to evaluate the ecological response to the restoration activities. Project partners include Maryland Department of Natural Resources, Maryland Department of the Environment, U.S. Fish and Wildlife Service, Friends of Blackwater National Wildlife Refuge and Maryland Ornithological Society.



Kettle Creek Watershed Program

Trout Unlimited, Inc.

Loch Haven, Pennsylvania

Community Legacy Grant: \$ 100,000 Partner Contributions: \$ 287,200

Trout Unlimited, Inc., working with the Kettle Creek Watershed Association, will create and begin implementation of a comprehensive watershed conservation plan for Kettle Creek. Acid mine drainage (AMD) remediation work will be conducted on the lower part of the creek, resulting in complete recovery of 14.5 stream miles and 40 acres of contaminated forest and wetlands. A unique aerial mapping project will assist restoration of Kettle Creek's largest AMD site and serve as a model for AMD planning and assessment in other Chesapeake Bay watersheds. In addition, the project includes restoration of three miles of the creek's largest tributary, Cross Fork, using riparian forest buffer and stream channel restoration. A habitat improvement workshop will also be offered to 25 riparian landowners.

Low Impact Planning for Urban Watersheds

The District of Columbia Office of Planning

Washington, DC

Community Legacy Grant: \$ 100,000 Partner Contributions: \$ 240,000

The District of Columbia Office of Planning will develop a "low impact development" (LID) retrofit plan for approximately 60 acres along the east side of the Anacostia River. This project will serve as a model for how LID techniques can be retrofitted within a highly developed area to reduce the water quality and quantity impacts of storm water. Once final design and construction plans are prepared, monitoring stations will be set up and data will be collected to determine the reduction in pollutant loads resulting from the LID projects. The project will also include extensive outreach to the affected communities and property owners. Project partners include District of Columbia Office of Planning, District of Columbia Water and Sewer Authority, Low Impact Development Center and the Anacostia Watershed Society.

Middle Branch Urban Watershed Management Plan

Parks & People Foundation

Baltimore, Maryland

Community Legacy Grant: \$ 100,000 Partner Contributions: \$ 325,700

The Parks & People Foundation will develop a model urban watershed management plan for six urban neighborhoods that have a high percentage of impervious surfaces and a significant lack of urban forests. The planning process will explore the feasibility of various water quality restoration techniques to improve storm water management, focusing on the "greening" of vacant or abandoned sites. Thirteen miles of storm drains will be mapped and monitored with community stewards and approximately two acres of asphalt will be removed from city schoolyards and Bay-friendly landscaping planned and initiated. Project partners include Baltimore City Department of Public Works, Parks & People Foundation KidsGrow, Parks & People Foundation Community Forestry and the Institute of Ecosystem Studies.

West Branch Owego Creek Restoration

Tompkins County Soil and Water Conservation District

Speedsville, New York

Community Legacy Grant: \$ 100,000 Partner Contributions: \$ 198,000

The Tompkins County Soil and Water Conservation District will restore approximately 3,000 feet of the West Branch of Owego Creek using natural stream channel design techniques. Restoration activities will reduce erosion and sediment in the stream and improve in-stream habitat for fish and invertebrates. The project also includes the restoration of five acres of riparian habitat through USDA's Conservation Reserve Program, which fences livestock out of the stream and provides an alternative water supply. Education and outreach efforts to landowners will insure that the site will serve as an education/demonstration resource for the entire Upper Susquehanna River watershed. Project partners include U.S. Fish and Wildlife Service, NY State Department of Environmental Conservation, Natural Resources Conservation Service and Tioga County Soil and Water Conservation District.

2003 Chesapeake Bay Small Watershed Grant Recipients

Grants are listed by jurisdiction. Projects with activities in more than one state or the District of Columbia are listed under each jurisdiction.

District of Columbia

Bioretention Design Certification

University of Maryland College Park Foundation, Inc.

Chesapeake Bay Watershedwide

Small Watershed Grant: \$15,000

Partner Contributions: \$41,900

The University of Maryland will develop a training and certification program for the approximately 150 professionals who are involved in the design, construction and landscaping of bioretention facilities in the Chesapeake Bay watershed. The goal of the certification program is to ensure that these professionals have the capacity to design successful bioretention systems that will lead to meaningful improvements in water quality in the Chesapeake Bay region. Project partners include the University of Maryland at College Park and Prince George's County Department of Environmental Resources.

Low Impact Development

DC Greenworks

Washington, DC

Small Watershed Grant: \$35,000

Partner Contributions: \$53,260

DC Greenworks will install a "green roof" in downtown Washington, DC. This roof will serve as a demonstration of this innovative technology for developers, property managers, planners, city officials and environmental non-profits. With the assistance of volunteers, weather stations will be installed to measure precipitation rates, runoff rate, effluent sedimentation and roof and ambient temperatures. Project partners include GCA Casey Trees, Low Impact Development Center and DC Environmental Health Administration.

Maryland

Annapolis Rain Gardens

City of Annapolis

Annapolis, Md.

Small Watershed Grant: \$30,000

Partner Contributions: \$206,000

The City of Annapolis will design and install two rain gardens at the Newman Street playground and Truxtun Park. Each rain garden will handle and treat storm water from approximately an acre of upland area where runoff from sidewalks and roadways are currently running directly into storm drains and ultimately Spa Creek. Since both project areas are adjacent to recreation facilities, the City plans to install interpretive signs that will explain the relationship between runoff from urban areas and the water quality of the Chesapeake Bay. Project partners include Environmental Board, Tree Committee, Conservancy Board, Severn River Association, Recreation Board, GreenScape and Annapolis Elementary School.

Barren Island Restoration

National Aquarium in Baltimore

Barren Island, Md.

Small Watershed Grant: \$40,600

Partner Contributions: \$66,200

The National Aquarium in Baltimore will continue a successful marsh restoration project at Barren Island, part of Blackwater National Wildlife Refuge on Maryland's Eastern Shore. Ten acres have been added to the island by the U.S. Army Corps of Engineers through the placement of sand dredged from shipping channels in Chesapeake Bay. Community volunteers will plant salt marsh grasses on these reclaimed areas to create habitat for waterfowl and other wildlife. Project partners include U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, NOAA Restoration Center, Friends of Blackwater National Wildlife Refuge, Friends of Eastern Neck National Wildlife Refuge, University of Maryland Eastern Shore, Howard University, University of the District of Columbia, Maryland Conservation Corps and Salisbury Zoo.

Bioretention Design Certification

University of Maryland College Park Foundation, Inc.

Chesapeake Bay Watershedwide

Small Watershed Grant: \$15,000

Partner Contributions: \$41,900

The University of Maryland will develop a training and certification program for the approximately 150 professionals who are involved in the design, construction and landscaping of bioretention facilities in the Chesapeake Bay watershed. The goal of the certification program is to ensure that these professionals have the capacity to design successful bioretention systems that will lead to meaningful improvements in water quality in the Chesapeake Bay region. Project partners include the University of Maryland at College Park and Prince George's County Department of Environmental Resources.

Builders for the Bay Program

Homebuilders Association of Maryland/Building Industries Foundation

Maryland

Small Watershed Grant: \$40,000

Partner Contributions: \$82,250

The Home Builders Association of Maryland/Building Industries Foundation (HBAM/BIF) will assist a Maryland county (to be selected) in identifying code and ordinance changes that promote environmentally-sensitive development. HBAM/BIF will conduct a series of consensus-building meetings and provide specific recommendations about which codes and ordinances should be changed. In addition, it will produce a final consensus agreement that documents the planning process and provides a summary of the recommendations. Project

partners include the Center for Watershed Protection and the Alliance for the Chesapeake Bay.

Building Capacity for Watershed Organizations

The Center for Watershed Protection

Baltimore, Md.; Takoma Park, Md; Harrisburg, Pa.

Small Watershed Grant: \$40,000

Partner Contributions: \$129,000

The Center for Watershed Protection will form partnerships to help build the capacity of three small urban watershed organizations: Paxton Creek Watershed and Education Association, Friends of Sligo Creek and the Gwynns Falls Watershed Association. The Center will provide these groups with technical training and assistance. Final products will include the implementation of at least four on-the-ground restoration or storm water management projects, development of three watershed or subwatershed restoration plans and completed designs for another 15 retrofit or restoration projects. Additional project partners include Living Classrooms Foundation, City of Takoma Park, Maryland National Capital Parks and Planning Commission, Ecosite and Chesapeake Bay Trust.

Chesapeake Bay Ecology Demonstration Center

Blacks of the Chesapeake Foundation

Annapolis, Md.

Small Watershed Grant: \$25,000

Partner Contributions: \$112,000

The Blacks of the Chesapeake Foundation will create twelve conservation demonstration sites at their ten-acre Learning Center on College Creek in Annapolis, Maryland. The proposed demonstration sites will include riparian buffers, native species gardens and watershed stewardship sites. Project staff will also develop a hands-on environmental education program and restoration projects that will involve teachers, students and community groups. Project partners include Chesapeake Bay Trust, Anne Arundel County Board of Education, Maryland Department of Natural Resources, Anne Arundel County Executive Office, Anne Arundel Department of Public Works, Chesapeake Bay Foundation and U.S. Fish and Wildlife Service.

Chester River Wetlands Restoration

Chesapeake Wildlife Heritage

Centreville, Md. & Chester, Md.

Small Watershed Grant: \$40,000

Partner Contributions: \$25,500

Chesapeake Wildlife Heritage will educate 25 private landowners on wetland and upland buffer restoration opportunities within the Chester River watershed. A management plan will be designed for properties owned by the grantee and other private landowners. Implementation will include the planting of 30 acres of riparian buffers and the restoration of 140 acres of wetlands. Project partners include the Natural Resources Conservation Service and private landowners.

City of Bowie Low Impact Development Project

City of Bowie

Bowie, Md.

Small Watershed Grant: \$25,000

Partner Contributions: \$125,000

The City of Bowie will undertake a low impact development and sustainable design demonstration project within the Western Branch watershed. The project will illustrate responsible land use, habitat protection and resource conservation through sustainable design and construction and serve as an example to influence future development standards. Presentations and workshops on sustainable development practices will be conducted to involve students, community groups, government agencies and builders/developers. Project partners include Prince George’s County Department of Environmental Resources, U.S. Fish and Wildlife Service, Maryland Department of Natural Resources, Maryland National Capital Parks and Planning Commission and Maryland Energy Administration.

Evitts Creek Stream Restoration and Buffer Project

Allegany Soil Conservation District

Cumberland, Md.

Small Watershed Grant: \$10,000

Partner Contributions: \$10,000

The Allegany Soil Conservation District will implement a project to stabilize a severely eroding streambank and establish a riparian forest buffer along Evitts Creek. Students from Fort Hill and Allegany High Schools will participate in project implementation. Partners include Nemascolin Chapter of Trout Unlimited, Allegany Department of Public Works and Natural Resource Conservation Service.

Kent Island School Raingarden

Queen Anne’s County Beautification Committee

Kent Island, Md.

Small Watershed Grant: \$5,000

Partner Contributions: \$6,000

The Queen Anne’s County Beautification Committee will improve water quality by removing an existing gravel parking lot at the Kent Island Elementary School Complex and replace it with a native vegetation buffer that will help reduce and filter storm water runoff. The site will be used as a “living classroom” where elementary and middle school students can learn about storm water filtration and biodiversity of native vegetation buffers. Students will collect data from field experiments to document water quality improvements associated with riparian buffers. Project partners include Queen Anne’s County Department of Parks and Recreation.

Magothy River Watershed Survey

Anne Arundel County

Anne Arundel County, Md.

Small Watershed Grant: \$35,000

Partner Contributions: \$13,600

Anne Arundel County, in partnership with the Magothy River Association, will conduct a comprehensive survey of stream quality, riparian habitat, and tidal shoreline conditions in the Magothy River watershed. Staff from Maryland Department of Natural Resources will provide training to surveyors and assistance in conducting the field surveys. Data collected during the surveys will be used to help target future habitat restoration and land conservation activities.

Mesohaline SAV Restoration

University of Maryland Foundation

Maryland's Eastern Shore

Small Watershed Grant: \$50,000

Partner Contributions: \$109,800

The University of Maryland Center for Environmental Science's Horn Point Laboratory, in partnership with the Chesapeake Bay Foundation and Maryland Department of Natural Resources, will implement a community-based restoration program for submerged aquatic vegetation (SAV) in the "mesohaline" (moderately brackish) portions of the Chesapeake Bay. Specific restoration sites along Maryland's Eastern Shore will be identified through water quality testing and computer modeling. Community volunteers will help with all aspects of the project, including growing plants in greenhouses, assisting with the actual planting, and participating in post-restoration monitoring. These plantings will help test scientific theories regarding SAV restoration and refine the techniques used in SAV plantings.

Monocacy River Education

Community Commons, Inc.

Frederick County, Md.

Small Watershed Grant: \$46,000

Partner Contributions: \$21,370

Community Commons, Inc. will coordinate a watershed education and outreach campaign that will offer practical watershed conservation tools to homeowners and present a low impact development program to local government leaders and building professionals that will help guide future development in the watershed. Project partners include Frederick County Public Works, Frederick County Planning and Zoning, Maryland Forest Service, Maryland Department of Natural Resources, Lake Linganore Conservation Society, Hood College and Rodgers Consulting.

Natural Greenways in South County

South County Exchange

Anne Arundel County, Md.

Small Watershed Grant: \$25,000

Partner Contributions: \$42,000

South County Exchange will work with private landowners in southern Anne Arundel County to encourage participation in existing land conservation programs and to identify potential reforestation sites along the Patuxent River. Project partners include National Park Service, Anne Arundel County Land Use Office, U.S. Fish and Wildlife Service, Forestry Board, South County Coalition, Anne Arundel County Department of Recreation & Parks, and Maryland Environmental Trust.

Potential Acid Mine Drainage Abatement Projects

George's Creek Watershed Association

Allegany County, Md.

Small Watershed Grant: \$10,000

Partner Contributions: \$23,250

George's Creek in western Maryland has been adversely impacted by acid mine drainage (AMD) resulting from coal mining. The George's Creek Watershed Association, with the assistance of partners, will collect water quality and fish population and habitat data to evaluate the effectiveness of ongoing restoration projects at George's Creek. Data from these studies will help identify sites for future AMD abatement projects. Project partners include U.S. Office of Surface Mining, Maryland Bureau of Mines, and Maryland Department of Natural Resources.

South River Restoration Assessment and Training

South River Federation

Annapolis, Md. & Edgewater, Md.

Small Watershed Grant: \$35,000

Partner Contributions: \$25,875.68

The South River Federation will conduct stream assessments and inventory storm water retrofit opportunities in 21 urbanized subwatersheds within the larger South River watershed. A community watershed restoration plan will be created that will include an extensive inventory of retrofit opportunities. A demonstration bioretention facility will be constructed and educational outreach events will be held for businesses and homeowners. Project partners include the Center for Watershed Protection, Anne Arundel County and Chesapeake Bay Trust.

Stony Run Stream Restoration

Jones Falls Watershed Association

Baltimore, Md.

Small Watershed Grant: \$35,000

Partner Contributions: \$50,000

The Jones Falls Watershed Association will restore more than 1,000 feet of Stony Run Stream using natural stream restoration techniques. Students and local residents will help restore a natural stream channel and floodplain, including twelve acres of forested stream buffer. Through this restoration work, the association hopes to communicate to community residents the value of stream health. Project partners include Baltimore City and the Alliance for the Chesapeake Bay.

Susquehanna Watershed Leadership Initiative

Izaak Walton League of America

Susquehanna River Watershed

Small Watershed Grant: \$40,000

Partner Contributions: \$80,000

The Izaak Walton League of America will continue a series of workshops designed to build the capacity of local communities to conduct watershed restoration and stewardship activities. Workshops on habitat enhancement and wetlands ecology will help citizens groups and municipalities restore 1,000–1,200 linear feet of stream bank and three to five acres of riparian buffers. Project partners include Pennsylvania Organization for Watersheds and Rivers, Lackawana County Conservation District, Upper Susquehanna Coalition, Susquehanna River Basin Commission, Alliance for the Chesapeake Bay and U.S. Fish and Wildlife Service.

Turner Station Restoration & Education

Living Classrooms Foundation

Baltimore, Md.

Small Watershed Grant: \$34,700

Partner Contributions: \$11,220

The Living Classrooms Foundation will combine several different restoration projects with community education programs in the historic Baltimore County neighborhood of Turner Station. This project will restore three acres of land around the Fleming Center by re-grading and planting 3,100 feet of shoreline, planting about 800 trees and other buffer plants, and placing about 200 bags of oysters at the Ft. Carroll oyster sanctuary. Project partners include Maryland Department of the Environment, Baltimore County Forestry Board, Turner Station Heritage Foundation, Dundalk Elementary School, Dundalk Middle School, Logan Elementary School and Baltimore County Department of Recreation and Parks.

Urban and Suburban Restoration and Outreach

Potomac Conservancy

Potomac Watershed

Small Watershed Grant: \$10,000

Partner Contributions: \$123,520

The Potomac Conservancy will engage 1,000 students in restoration activities within the Potomac Gorge watershed and the northern Shenandoah Valley. Six demonstration rain gardens and other school-yard restoration projects will be installed to foster community education and reduce impervious surface areas. Project partners include Maryland National Capital Parks and Planning Commission, Global Ecology Studies, Claude Moore Park-Loudoun County Parks, Loudoun County Department of Parks and Recreation, Virginia Department of Forestry, Arlington County Department of Parks and Recreation, Potomac Watershed Partnership, Chesapeake Bay Trust and Virginia Department of Conservation and Recreation.

Urban Storm Water Alternatives

City of Rockville

Rockville, Md.

Small Watershed Grant: \$30,800

Partner Contributions: \$42,000

The City of Rockville, in cooperation with the College Gardens Civic Association, will use innovative technologies for management of urban storm water runoff. Techniques to be considered include rain gardens, rain barrels, dry wells, infiltration swales, green roofs, storm water retrofits, and fertilizer and pesticide management. Appropriate technologies will be implemented at demonstration sites within the College Gardens community. Community volunteers will assist with installation and monitoring activities. An incentive program will encourage low impact storm water management on residential and commercial properties.

Use of Compost to Control Fine Particles

Alliance for Community Education

Annapolis, Md.

Small Watershed Grant: \$40,000

Partner Contributions: \$37,680

The Alliance for Community Education will conduct the first rigorous scientific test of an innovative new compost berm technology which shows great promise at preventing sediment run-off from construction sites. Project partners include Severn River Land Trust, Anne Arundel Soil Conservation District, Ecosite, Brightwater, Greater Clay St. CDC, Center for the Chesapeake Story, Annapolis Tree Committee, Severn River Association and Chesapeake Bay Trust.

Watershed Restoration Institute

River Network

Maryland, Pennsylvania and Virginia

Small Watershed Grant: \$25,000

Partner Contributions: \$155,000

River Network, in cooperation with the Center for Watershed Protection and others, will initiate a Watershed Restoration Institute to train and equip representatives from watershed organizations, local government agencies and consulting firms throughout Pennsylvania, Maryland and Virginia in an intensive, week-long program. The institute will include both field and classroom exercises that provide participants with the skills and tools to assess, design and implement effective restoration programs in their watersheds.

New York

Bioretention Design Certification Program

University of Maryland College Park Foundation, Inc.

Chesapeake Bay Watershed

Small Watershed Grant: \$15,000

Partner Contributions: \$41,900

The University of Maryland will develop a training and certification program for the approximately 150 professionals who are involved in the design, construction and landscaping

of bioretention facilities in the Chesapeake Bay watershed. The goal of the certification program is to ensure that these professionals have the capacity to design successful bioretention systems that will lead to meaningful improvements in water quality in the Chesapeake Bay region. Project partners include the University of Maryland at College Park and Prince George's County Department of Environmental Resources.

Citizen Engagement and Monitoring Program

Alliance for the Chesapeake Bay

Upper Susquehanna Watershed; Central Rappahannock Watershed

Small Watershed Grant: \$35,000

Partner Contributions: \$75,295

The Alliance for the Chesapeake Bay will develop and test pilot two citizen engagement activities within two different watersheds, the Upper Susquehanna and the Central Rappahannock. The project will involve community volunteers in ecological monitoring of amphibian populations and invasive species to assess the overall ecological health of their watersheds. Project partners include Friends of the Rappahannock, Upper Susquehanna Coalition and Towson University GIS Center.

Documenting Farm Best Management Practices

Tioga County Soil and Water Conservation District

Susquehanna River Watershed

Small Watershed Grant: \$38,600

Partner Contributions: \$6,400

The Tioga County Soil and Water Conservation District will use a Geographic Information System to document the best management practices that have been implemented on farms within the New York portion of the Susquehanna River watershed. Effort will assist with prioritizing landowner outreach and facilitate more effective watershed planning at the local level. Project partners include Upper Susquehanna Coalition and Soil and Water Conservation Districts for Broome, Chenango, Cortland, Madison, Otsego, Steuben and Tioga Counties.

Susquehanna Watershed Leadership Initiative

Izaak Walton League of America

Susquehanna River Watershed

Small Watershed Grant: \$40,000

Partner Contributions: \$80,000

The Izaak Walton League of America will continue a series of workshops designed to build the capacity of local communities to conduct watershed restoration and stewardship activities. Workshops on habitat enhancement and wetlands ecology will help citizen groups and municipalities restore 1,000–1,200 linear feet of stream bank and three to five acres of riparian buffers. Project partners include Pennsylvania Organization for Watersheds and Rivers, Lackawana County Conservation District, Upper Susquehanna Coalition, Susquehanna River Basin Commission, Alliance for the Chesapeake Bay and U.S. Fish and Wildlife Service.

Pennsylvania Amish Farmland Conservation and Education

Octoraro Watershed Association

Lancaster County, Pa.; Chester County, Pa.

Small Watershed Grant: \$25,000

Partner Contributions: \$49,500

The Octoraro Watershed Association will continue farmland conservation efforts within the Octoraro watershed, with a particular focus on Amish communities. Through this program, farmers will learn about best management practices that can improve water quality and wildlife habitat. Project partners include Chester Water Authority, Lancaster Farmland Trust, Brandywine Conservancy, Lancaster County Agricultural Preserve Board, Chester County Agricultural Preserve Board, Lancaster County Conservation District, Chester County Conservation District and Ducks Unlimited.

Bioretention Design Certification Program

University of Maryland College Park Foundation, Inc.

Chesapeake Bay Watershedwide

Small Watershed Grant: \$15,000

Partner Contributions: \$41,900

The University of Maryland will develop a training and certification program for the approximately 150 professionals who are involved in the design, construction and landscaping of bioretention facilities in the Chesapeake Bay watershed. The goal of the certification program is to ensure that these professionals have the capacity to design successful bioretention systems that will lead to meaningful improvements in water quality in the Chesapeake Bay region. Project partners include the University of Maryland at College Park and Prince George's County Department of Environmental Resources.

Building Capacity for Watershed Organizations

The Center for Watershed Protection

Baltimore, Md.; Takoma Park, Md.; Harrisburg, Pa.

Small Watershed Grant: \$40,000

Partner Contributions: \$129,000

The Center for Watershed Protection will form partnerships to help build the capacity of three small urban watershed organizations: Paxton Creek Watershed and Education Association, Friends of Sligo Creek, and the Gwynns Falls Watershed Association. The Center will provide these groups with technical training and assistance. Final products will include the implementation of at least four on-the-ground restoration or storm water management projects, development of three watershed or subwatershed restoration plans, and completed designs for another 15 retrofit or restoration projects. Additional project partners include Living Classrooms Foundation, City of Takoma Park, Maryland National Capital Parks and Planning Commission, Ecosite and Chesapeake Bay Trust.

Citizen Engagement and Monitoring Program

Alliance for the Chesapeake Bay

Upper Susquehanna Watershed; Central Rappahannock Watershed

Small Watershed Grant: \$35,000

Partner Contributions: \$75,295

The Alliance for the Chesapeake Bay will develop and test pilot two citizen engagement activities within two different watersheds, the Upper Susquehanna and the Central Rappahannock. The project will involve community volunteers in ecological monitoring of amphibian populations and invasive species to assess the overall ecological health of their watersheds. Project partners include Friends of the Rappahannock, Upper Susquehanna Coalition and Towson University GIS Center.

Citizen Monitoring of Dam Removal

Pennsylvania Organization for Watersheds and Rivers

Newville, Pa.; Silver Spring Township, Pa.; Dover Township, Pa.

Small Watershed Grant: \$35,000

Partner Contributions: \$22,900

The Pennsylvania Organization for Watersheds and Rivers will expand its pre- and post-dam removal citizen monitoring program to train volunteers in evaluating post-removal sites for follow-up restoration activities. Three different watershed groups will be trained in assessment methods and a guidebook will be published outlining the techniques. This project will help to integrate community watershed organizations into dam removal efforts and also lead to better methods for improving riparian restoration following dam removal. Project partners include Alliance for Aquatic Resource Monitoring, Alliance for the Chesapeake Bay, Conodoguinet Creek Watershed Association, Pennsylvania Fish & Boat Commission and American Rivers.

Conservation-Based Beef Production Project

Western Pennsylvania Conservancy

Clearville, Pa.

Small Watershed Grant: \$48,500

Partner Contributions: \$240,000

The Western Pennsylvania Conservancy will create a model "conservation beef" co-operative that will market beef from farms that have implemented conservation practices that benefit water quality. Project will increase awareness of and create an economic incentive for agricultural best management practices among the agricultural community in the three subject watersheds. Project partners include USDA Farm Service Agency, Southern Alleghenies Resource Conservation & Development, Bedford County Conservation District, Penn State Extension Service, Pennsylvania Department of Environmental Protection and Pennsylvania Department of Conservation and Natural Resources.

Iron Stone Mill Dam Removal

Trout Unlimited

Lancaster, Pa.

Small Watershed Grant: \$50,000

Partner Contributions: \$50,000

Trout Unlimited, in partnership with the Pennsylvania Fish and Boat Commission, will complete the design work needed to remove an abandoned dam on the Conestoga River in Lancaster, Pennsylvania. Removal of this dam will open 24 miles of river to anadromous fish, including American shad, blue back herring and alewife.

Land Use Fragmentation Study

Pennsylvania Environmental Council

Luzerne County, Pa.; Wyoming County, Pa.

Small Watershed Grant: \$25,000

Partner Contributions: \$25,000

Farmers, private forest landowners, and conservationists are increasingly concerned about subdivision of forest and farmland parcels and the negative effects of this subdivision on traditional working farms and forests. This study will analyze land use data in two Pennsylvania counties, tracking land use changes over time and developing a standard method that can be used to assess land use fragmentation throughout the state. Project partners include Pennsylvania Department of Environmental Protection's Bureau of Forestry, Wyoming County Agricultural Preservation Board and Planning Commission and Luzerne County Planning Commission.

Muncy Creek Watershed Outreach

Muncy Creek Watershed Association, Inc.

Sullivan, Pa.; Lycoming Pa.

Small Watershed Grant: \$5,000

Partner Contributions: \$8,000

The Muncy Creek Watershed Association will publish and distribute two additional newsletters, expand their educational outreach program through presentations to civic groups and schools, and continue to collect baseline data on watershed conditions. Project partners include Endless Mountains Resource Conservation Trust and Sullivan and Lycoming County Conservation District.

Municipal Storm Water Management

Pennsylvania Environmental Council

Juniata Watershed, Pa.

Small Watershed Grant: \$25,000

Partner Contributions: \$22,665.47

The Pennsylvania Environmental Council will educate and train municipal officials in the Juniata Watershed about the importance of storm water management and its relevance to municipal activities. Three two-day courses will be made available to all 200 municipal political subdivisions in the watershed. After the training, the officials will receive follow-up technical assistance to help them implement concepts learned in the course. Project partners include Juniata Clean Water

Partnership, Western Pennsylvania Watershed Program, Mifflin County Conservation District and Juniata College.

Spring Creek Buffer Restoration

Spring Creek Watershed Community

Centre County, Pa.

Small Watershed Grant: \$50,000

Partner Contributions: \$84,585.99

Spring Creek Watershed Community will develop and implement a riparian conservation program in order to reduce non-point source pollution in the Spring Creek watershed. Outreach efforts include three workshops and the mailing of 500 educational packets. A demonstration site will be created to educate local landowners about the value of riparian buffers. Project partners include ClearWater Conservancy, Spring Creek Chapter of Trout Unlimited, Centre Region Parks and Recreation, State College Borough Water Authority, Penn State University, and Centre County Conservation District.

Stream Stewardship Program

Chesapeake Bay Foundation

Susquehanna River Basin, Pa.

Small Watershed Grant: \$35,000

Partner Contributions: \$50,600

The Chesapeake Bay Foundation will work with developers in the Harrisburg area to restore and establish 20 acres of wetlands and forested riparian buffer. By focusing on urban and suburban areas, the Stream Stewardship Program is designed to fill a void left by existing agricultural buffer programs. Educational materials will be produced that emphasize the value of riparian buffers; these materials will be shared with developers, planners, engineers and landscape architects through three workshops.

Susquehanna Greenway Partnership Plan

SEDA Council of Governments

Susquehanna River Corridor, Pa.

Small Watershed Grant: \$35,000

Partner Contributions: \$700,000

SEDA-Council of Governments, in cooperation with numerous county, state and federal partners, will complete its initial planning phase and begin implementation of the Susquehanna Greenway Plan, a comprehensive plan to link the natural and historic sites along the Susquehanna River in Pennsylvania. This phase of the project includes construction and implementation of at least one demonstration project as well as continued education and outreach.

Susquehanna Watershed Leadership Initiative

Izaak Walton League of America

Susquehanna River Watershed

Small Watershed Grant: \$40,000

Partner Contributions: \$80,000

The Izaak Walton League of America will continue a series of workshops designed to build the capacity of local communities to conduct watershed restoration and stewardship activities.

Workshops on habitat enhancement and wetlands ecology will help citizen groups and municipalities restore 1,000–1,200 linear feet of stream bank and three to five acres of riparian buffers. Project partners include Pennsylvania Organization for Watersheds and Rivers, Lackawana County Conservation District, Upper Susquehanna Coalition, Susquehanna River Basin Commission, Alliance for the Chesapeake Bay and U.S. Fish and Wildlife Service.

Trout Run Watershed Assessment

Rush Township

Centre County, Pa.

Small Watershed Grant: \$35,000

Partner Contributions: \$9,239

Rush Township in Centre County, Pennsylvania, will conduct a comprehensive assessment of abandoned mine lands and acid mine drainage (AMD) discharges within the Trout Run watershed. Preliminary assessments indicate that this watershed includes 10 miles of unimpacted streams and 6.4 miles of AMD-impaired stream. Sites identified through the comprehensive inventory will be prioritized for remediation activities. Project partners include Boy Scout Troop 48 of Osceola Mills, Moshannon Creek Watershed Coalition, Pennsylvania Department of Environmental Protection, Clearfield County Conservation District and Centre County Conservation District and New Miles of Blue Stream.

Upper Alder Run Watershed Assessment

Graham Township

Clearfield County, Pa.

Small Watershed Grant: \$35,000

Partner Contributions: \$21,447

Graham Township in Clearfield County, Pennsylvania, will conduct a scientific assessment of the sources and causes of water quality degradation within Upper Alder Run. From this survey, the Township will develop a restoration plan that should reduce or eliminate non-point source pollution along 6.5 miles of Alder Run. Remediation designs will be created for at least three of the top priority sites. Project partners include Skelly and Loy, Inc., Analytical Laboratory Services, Inc. and West Branch Sportsman's Club.

Watershed Restoration Institute

River Network

Maryland, Pennsylvania and Virginia

Small Watershed Grant: \$25,000

Partner Contributions: \$155,000

River Network, in cooperation with the Center for Watershed Protection and others, will initiate a Watershed Restoration Institute to train and equip representatives from watershed organizations, local government agencies and consulting firms throughout Pennsylvania, Maryland and Virginia in an intensive, weeklong program. The institute will include both field and classroom exercises that provide participants with the skills and tools to assess, design and implement effective restoration programs in their watersheds.

Virginia

Acorns to Acres

Chesapeake Bay Foundation

Warsaw, Va.

Small Watershed Grant: \$17,000

Partner Contributions: \$17,000

The Chesapeake Bay Foundation and its partners will demonstrate a new method for planting riparian forest buffers using a specially modified mechanized seed planter. Community volunteers and students will collect acorns, which will then be planted with the new equipment along ten acres of streambank. If the new approach is successful it may significantly reduce the time and expense of more traditional approaches. Project partners include Potomac Watershed Partnership, U.S. Fish and Wildlife Service, Virginia Department of Forestry and Northern Neck Soil and Water Conservation District.

Bioretention Design Certification Program

University of Maryland College Park Foundation, Inc.

Chesapeake Bay Watershedwide

Small Watershed Grant: \$15,000

Partner Contributions: \$41,900

The University of Maryland will develop a training and certification program for the approximately 150 professionals who are involved in the design, construction and landscaping of bioretention facilities in the Chesapeake Bay watershed. The goal of the certification program is to ensure that these professionals have the capacity to design successful bioretention systems that will lead to meaningful improvements in water quality in the Chesapeake Bay region. Project partners include the University of Maryland at College Park and Prince George's County Department of Environmental Resources.

Blacks Run Restoration

Friends of Blacks Run Greenway

Harrisonburg, Pa.

Small Watershed Grant: \$50,000

Partner Contributions: \$77,100

The Friends of Blacks Run Greenway will restore 175 feet of habitat along Blacks Run in Harrisonburg, Virginia. A one-third acre gravel parking lot will be replaced with a more permeable surface, the adjoining 175 feet streambank will be restored, and storm water-filtering vegetation planted. A bioretention basin will also be installed in order to improve water quality by slowing water flow, reducing erosion, reducing storm water runoff and allowing contaminants to settle out of the storm water. Project partners include Harrisonburg Redevelopment & Housing Authority, Greener Harrisonburg, City of Harrisonburg, Cargill Corporation, James Madison University, Virginia Department of Forestry and Valley Engineering Survey and Planning.

Cherrystone Inlet Watershed Management Plan

Eastern Shore Soil and Water Conservation District

Accomac, Va.

Small Watershed Grant: \$35,000

Partner Contributions: \$14,900

The Eastern Shore Soil and Water Conservation District, in cooperation with the Virginia Institute of Marine Science, will develop and implement a watershed management plan for the Cherrystone Inlet watershed. Staff will prepare an environmental inventory that includes data on land use, land cover, wetlands, forest riparian buffers and water quality. Community stakeholders will review information from the inventory to draft the management plan. Once finalized, two implementation workshops will disseminate information and convey available tools to landowners, developers and contractors.

Central Rappahannock River Spawning Habitat Restoration

Friends of the Rappahannock

Stafford County, Va.

Small Watershed Grant: \$10,000

Partner Contributions: \$13,000

The Friends of the Rappahannock will establish a submerged aquatic vegetation (SAV) restoration program to establish and maintain high-quality spawning habitat for anadromous fish in the lower reaches of two tributaries to the Rappahannock River. This effort is being undertaken in anticipation of the removal of Embury Dam in 2005 that has served as a barrier to migratory shad, herring and alewife. Project partners include Virginia Department of Game and Inland Fisheries, Chesapeake Bay Foundation, Stafford County Planning Department, Rappahannock Senior Environmental Corps and Stafford County schools.

Citizen Engagement and Monitoring Program

Alliance for the Chesapeake Bay

Upper Susquehanna Watershed; Central Rappahannock Watershed

Small Watershed Grant: \$35,000

Partner Contributions: \$75,295

The Alliance for the Chesapeake Bay will develop and test pilot two citizen engagement activities within two different watersheds, the Upper Susquehanna and the Central Rappahannock. The project will involve community volunteers in ecological monitoring of amphibian populations and invasive species to assess the overall ecological health of their watersheds. Project partners include Friends of the Rappahannock, Upper Susquehanna Coalition and Towson University GIS Center.

Community Watershed Organizing

RappFLOW

Rappahannock County, Va.

Small Watershed Grant: \$7,200

Partner Contributions: \$9,548

RappFLOW will engage local government agencies and citizens groups in a series of hands-on workshops, field projects, and panel discussions to encourage community participation in local watershed management. Project partners include Rappahannock County government, Piedmont Research Institute, Friends of the Rappahannock, Virginia Department of Conservation and Recreation, Virginia Cooperative Extension Service and Culpeper Soil and Water Conservation District.

Daniels Run Restoration

EcoStewards Alliance

Fairfax, Va.

Small Watershed Grant: \$30,000

Partner Contributions: \$70,400

EcoStewards Alliance will restore over 500 feet of riparian habitat on property belonging to Daniels Run Elementary School in Fairfax, Virginia. Eroding streambanks along Daniels Run will be stabilized using native vegetation, existing riparian buffers will be augmented by new plantings, and demonstration “BayScaping” sites will be created on the school property. Through complementary educational efforts, 775 students, 31 teachers and 91 staff members and parents will learn BayScaping techniques and watershed sciences. Project partners include City of Fairfax, Northern Virginia Soil and Water Conservation District and George Mason University.

Four Mile Run Water Stewardship Teams Program

Arlingtonians for a Clean Environment

Arlington, Va.

Small Watershed Grant: \$35,000

Partner Contributions: \$22,200

Arlingtonians for a Clean Environment will establish 20 Water Stewardship Teams that will help empower local residents in their efforts to achieve measurable reductions in water pollutants, storm water volume, and water consumption. Community members with experience in watershed programs will be recruited as volunteers to lead the teams; team members will track their own individual environmental performance. Plans will be made to apply this approach in the entire Four Mile Run watershed. Project partners include Arlington County, City of Alexandria, City of Falls Church and Northern Virginia Conservation Trust.

Foxwells Wetland Restoration Project

Northern Neck Soil and Water Conservation District

Foxwells, Va.

Small Watershed Grant: \$25,700

Partner Contributions: \$24,925

The Northern Neck Soil and Water Conservation District will restore 5,400 square feet of tidal marsh at Foxwells, Virginia.

The project will also include a hands-on workshop to educate 30 volunteers in wetland restoration techniques, plant identification, and wetland functions. The restored wetland will help improve water quality and increase wetland habitat for waterfowl and other aquatic species. Project partners include Virginia Department of Transportation, Master Gardeners, Native Plant Society, Audubon Society, Cub Scouts and Tabb's Creek Association.

James River Spiny mussel Conservation

The Nature Conservancy - Virginia

Albemarle, Va.; Fluvanna, Va.; Nelson, Va.

Small Watershed Grant: \$40,000

Partner Contributions: \$30,000

In partnership with local organizations, The Nature Conservancy's Virginia Chapter will provide technical assistance and financial support to landowners who wish to restore and conserve habitat for the endangered James spiny mussel. Four miles of riparian forest buffers will be planted in areas with remaining mussel populations and at potential reintroduction sites. The buffers will help improve water quality which will, in turn, promote mussel recovery. Project partners include Thomas Jefferson Soil and Water Conservation District, Albemarle County Department of Engineering, U.S. Fish and Wildlife Service, Rivanna Conservation Society and Friends of the Hardware.

James River Tributary Strategy

Monacan Soil and Water Conservation District

Middle James River Watershed, Va.

Small Watershed Grant: \$20,000

Partner Contributions: \$26,600

The Monacan Soil and Water Conservation District, along with other partners in the Piedmont Region James River Tributary Strategy Steering Committee, will undertake two water quality improvement demonstration projects to facilitate broader implementation of the techniques throughout the watershed. Project will also include workshops for local government officials and citizens to share information about how they can help support and implement the Tributary Strategy for reducing nutrient and sediment loads.

James River Watershed Restoration Project

James River Association

James River Watershed, Va.

Small Watershed Grant: \$50,000

Partner Contributions: \$155,000

The James River Association will provide technical assistance to local landowners in restoring 150 acres of wetlands and ten miles of riparian buffer. An additional sixty acres of native warm season grass buffers will be planted around the restored wetlands. Local landowners will be encouraged to enroll in state and federal conservation programs to help protect the Chesapeake Bay watershed. Project partners include Ducks Unlimited and Virginia Department of Game and Inland Fisheries.

Lake Anna Watershed Management Plan Implementation

Lake Anna Civic Association

Lake Anna, Va.

Small Watershed Grant: \$25,000
Partner Contributions: \$106,502

The Lake Anna Civic Association (LACA) will complete a comprehensive survey of current and proposed land uses in the Lake Anna watershed to help local governments in their land use decision-making. LACA will also work to involve local citizens groups in state and private conservation programs. Project partners include Virginia Department of Environmental Quality, Dominion Power, Louisa County, Spotsylvania County, Virginia Department of Conservation and Recreation, Virginia Save our Streams, the local Soil and Water Conservation Districts and Virginia Department of Mines, Minerals & Energy.

Loudoun Strategic Watershed Management Plan

County of Loudoun Environmental and Historic Resources Program

Loudoun County, Va.

Small Watershed Grant: \$35,000
Partner Contributions: \$24,995

The County of Loudoun Environmental and Historic Resources Program will coordinate the development of a Strategic Watershed Management Plan for the county by bringing together local government agencies and citizens groups to inventory and analyze existing watershed conditions and conservation activities. This planning effort will result in a work plan and implementation schedule for county-wide watershed restoration. Project partners include five Loudoun County agencies, Audubon Naturalist Society, Virginia Department of Conservation and Recreation and Goose Creek Association.

Manual for Low Impact Site Design

Northern Shenandoah Valley Regional Commission

Northern Shenandoah Valley, Va.

Small Watershed Grant: \$35,000
Partner Contributions: \$125,000

The Northern Shenandoah Valley Regional Commission will create a manual for Low Impact Development (LID) site design in urban karst topography, to be used as a supplement to the Virginia Storm water Management Handbook. A study will be performed to determine the types of LID techniques that can meet existing site and storm water management requirements in karst topography. Once the most applicable LID techniques are chosen, site design standards will be adopted by jurisdictions within the region. Project partners include the Clarke, Frederick, Page, Shenandoah and Warren County governments.

Paradise Creek Restoration

The Elizabeth River Project

Portsmouth, Va.

Small Watershed Grant: \$50,000
Partner Contributions: \$23,000

The Elizabeth River Project will continue habitat restoration activities at Paradise Creek, a heavily urbanized tributary of the Elizabeth River. In this project, an oyster reef will be created using the native American Oyster, *Crassostrea virginica*. The three-dimensional reef will help restore oyster populations in the Elizabeth River and provide critical habitat for other fish and shellfish species. Project partners include Virginia Marine Resources Commission, Elizabeth River Project, Oyster Reef Keepers, Hoffer Creek Wildlife Foundation, Chesapeake Bay Foundation, Virginia Institute of Marine Sciences and Old Dominion University.

Potomac River Oyster Restoration

Westmoreland County

Westmoreland County, Va.

Small Watershed Grant: \$30,000
Partner Contributions: \$36,500

Westmoreland County will construct a one-acre, three-dimensional oyster reef sanctuary as well as nine acres of oyster harvest area within the Potomac River. The reef site will improve juvenile oyster survival, allow oysters to grow faster and physically position oysters in the most optimal configuration for spawning success. After designing the sanctuary, there will be an oyster workshop and educational meetings for local citizens and school children to build community support for the project. Project partners include Virginia Marine Resources Commission and Port Kinsale Foundation.

Protecting Habitat Corridors in the Virginia Piedmont

Piedmont Environmental Council

Northern Piedmont Region, Va.

Small Watershed Grant: \$50,000
Partner Contributions: \$50,000

The Piedmont Environmental Council will conserve 10,000 acres of critical wildlife habitat through donation or purchase of conservation easements. They will also provide training to land management professionals throughout the northern Piedmont region to educate them about conservation opportunities. This project will conserve important wildlife habitat and prevent further fragmentation of wildlife movement corridors. Project partners include Virginia Department of Conservation and Recreation, Virginia Outdoors Foundation and local governments.

Rappahannock River Watershed Restoration Project

Ducks Unlimited, Inc.

Rappahannock River Watershed, Va.

Small Watershed Grant: \$50,000

Partner Contributions: \$138,500

Ducks Unlimited, Inc. will restore 100 acres of wetlands and two miles of riparian buffers, develop nutrient management plans for 2,000 acres of agricultural land and construct two demonstration bioretention facilities within the Rappahannock River watershed. Two conservation workshops will be held to encourage landowners to enroll in state and federal conservation programs. Project partners include Friends of the Rappahannock, Northern Neck Soil & Water Conservation District, Three Rivers Soil and Water Conservation District, Hanover-Caroline Soil and Water Conservation District, and John Marshall Soil and Water Conservation District.

Reston Watershed Plan Implementation

Reston Association

Fairfax County, Va.

Small Watershed Grant: \$45,000

Partner Contributions: \$164,431

The Reston Association will restore a 1,000-foot stretch of the severely degraded Snakeden Branch, located at the headwaters of the Difficult Run watershed. Plantings of native vegetation will help reconnect the stream to its floodplain, which will allow sediments, nutrients and pollutants carried by storm water to be attenuated by the riparian zone. Public outreach will help promote stewardship of the watershed and additional restoration activities. Project partners include Fairfax County Department of Public Works & Environmental Services, Northern Virginia Soil & Water Conservation District and Virginia Department of Forestry.

Shenandoah Farmland Conservation

Chesapeake Bay Foundation

Verona, Va. & Winchester, Va.

Small Watershed Grant: \$49,000

Partner Contributions: \$73,500

The Chesapeake Bay Foundation will work with agricultural landowners in the Shenandoah Valley to reduce nutrient and sediment pollution through wetland and riparian forest buffer restoration and farmland conservation activities. Through this project, 150 farmers and landowners will receive information about cost share and incentive opportunities available through the new Farm Bill and the Chesapeake Bay Conservation Reserve Enhancement Program. Project partners include USDA Natural Resource Conservation Service, Potomac Conservancy and Canaan Valley Institute.

Shenandoah Working Lands Initiative

Potomac Conservancy

Winchester, Va.

Small Watershed Grant: \$35,000

Partner Contributions: \$152,000

The Potomac Conservancy will educate private woodlot owners in the northern Shenandoah Valley about conservation opportunities and help link owners to forestry professionals who can provide advice about forest management. Forestry education materials will be tailored to meet the conservation needs of woodlot owners. This project will help foster increased conservation of working forestlands in the Shenandoah River watershed. Project partners include Potomac Watershed Partnership, Virginia Department of Forestry and Lord Fairfax Soil and Water Conservation District.

Stream Protection Strategy

Prince William County-Environmental Services

Prince William County, Va.

Small Watershed Grant: \$30,000

Partner Contributions: \$30,000

Prince William County-Environmental Services will develop stream protection strategies to enhance watershed management activities in the Broad Run and Neabsco Creek watersheds. Habitat conditions and land use activities in these watersheds will be evaluated, and watershed management plans will be developed that outline strategies for mitigating existing and future water quality problems. Project partners include Prince William County Soil and Water Conservation District and Virginia Cooperative Extension Service.

Strengthening Community Watershed Organizations

Potomac River Greenways Coalition, Inc.

Fairfax County, Va.

Small Watershed Grant: \$19,500

Partner Contributions: \$50,075

Potomac River Greenways Coalition, Inc. will strengthen existing community watershed organizations and build additional capacity to create new watershed groups in Fairfax County. The project will educate 30 active citizen leaders from at least 10 organizations through a series of workshops and hands-on activities that will increase their knowledge of watershed processes and restoration techniques. A community watershed organization network and website will be created to serve as a communications hub for the watershed groups. Project partners include Northern Virginia Soil and Water Conservation District, Fairfax County Department of Public Works and Environmental Services, Audubon Naturalist Society, Potomac Conservancy, Northern Virginia Regional Commission, Virginia Department of Forestry and Chesapeake Bay Foundation.

Submerged Aquatic Vegetation Restoration

Alliance for the Chesapeake Bay

Virginia Eastern Shore and Potomac River, Va.

Small Watershed Grant: \$44,000

Partner Contributions: \$41,400

The Alliance for the Chesapeake Bay will restore up to 10 acres of submerged aquatic vegetation (SAV) along Virginia's eastern shore and the lower Potomac River. Volunteers will be trained in techniques for growing and planting SAV in the restoration effort. This project will be integrated with a recently developed

strategy for large-scale SAV restoration. Project partners include Virginia Eastern Shore Soil and Conservation District, Virginia Institute of Marine Science, The Nature Conservancy and The Watershed Network.

Targeted Wastewater Improvements

Middle Peninsula Planning District Commission

Middle Peninsula, Va.

Small Watershed Grant: \$33,000

Partner Contributions: \$33,632

The Middle Peninsula Planning District Commission will coordinate a targeted septic system repair and replacement program designed to improve water quality within the Middle Peninsula watershed. Failing and repaired septic systems will be mapped using a Geographic Information System database. Comparisons with water quality data will help prioritize failing systems for replacement and also help document water quality improvements as systems are replaced. The Planning District will provide construction and management assistance to landowners to build proper septic systems. Project partners include Three Rivers Health District.

Upper James River Watershed Organization

Virginia Save Our Streams

Upper James River Watershed, Va.

Small Watershed Grant: \$25,000

Partner Contributions: \$10,000

Virginia Save Our Streams will coordinate a comprehensive watershed organizing effort to build the capacity of local communities and citizen groups in the upper James River watershed. Education and stewardship trainings will be held for local government staff and for community organizations. A watershed monitoring program will be implemented to gather data necessary for developing watershed management plans.

Urban and Suburban Restoration and Outreach

Potomac Conservancy

Potomac Watershed

Small Watershed Grant: \$10,000

Partner Contributions: \$123,520

The Potomac Conservancy will engage 1,000 students in restoration activities within the Potomac Gorge watershed and the northern Shenandoah Valley. Six demonstration rain gardens and other school-yard restoration projects will be installed to foster community education and reduce impervious surface areas. Project partners include Maryland National Capital Parks and Planning Commission, Global Ecology Studies, Claude Moore Park-Loudoun County Parks, Loudoun County Department of Parks and Recreation, Virginia Department of Forestry, Arlington County Department of Parks and Recreation, Potomac Watershed Partnership, Chesapeake Bay Trust and Virginia Department of Conservation and Recreation.

Watershed Restoration Institute

River Network

Maryland, Pennsylvania and Virginia

Small Watershed Grant: \$25,000

Partner Contributions: \$155,000

River Network, in cooperation with the Center for Watershed Protection and others, will initiate a Watershed Restoration Institute to train and equip representatives from watershed organizations, local government agencies and consulting firms throughout Pennsylvania, Maryland and Virginia in an intensive, week-long program. The institute will include both field and classroom exercises that provide participants with the skills and tools to assess, design and implement effective restoration programs in their watersheds.

Willow Brook-Crooked Run Watershed Initiative

Friends of the Shenandoah River

Warren County, Va.; Frederick County, Va.;

Clarke County, Va.

Small Watershed Grant: \$35,000

Partner Contributions: \$62,900

The Friends of the Shenandoah River will create an inventory of natural resources and policies affecting land use within the Willow Brook-Crooked Run watershed and also perform an extensive analysis of water quality in surface and groundwater. The organization will work with farmers and landowners to implement four agricultural best management practices, two conservation land easements and four septic remediation/pump outs. Project partners include Lord Fairfax Soil & Water Conservation District, Canaan Valley Institute and Virginia Department of Forestry.

West Virginia

Bioretention Design Certification Program

University of Maryland College Park Foundation, Inc.

Chesapeake Bay Watershedwide

Small Watershed Grant: \$15,000

Partner Contributions: \$41,900

The University of Maryland will develop a training and certification program for the approximately 150 professionals who are involved in the design, construction and landscaping of bioretention facilities in the Chesapeake Bay watershed. The goal of the certification program is to ensure that these professionals have the capacity to design successful bioretention systems that will lead to meaningful improvements in water quality in the Chesapeake Bay region. Project partners include the University of Maryland at College Park and Prince George's County Department of Environmental Resources.

Cacapon/Lost River Farmland Conservation

Cacapon and Lost Rivers Land Trust, Inc.

High View, Wv.

Small Watershed Grant: \$45,000

Partner Contributions: \$3,610,000

Cacapon and Lost Rivers Land Trust, Inc. will initiate a farmland conservation program as one of the priority components to a watershed management strategy recently prepared by local stakeholders. Part of the initiative will include assisting farmers who are interested in permanently protecting their farmland. In addition, a pilot project will be developed that will raise matching funds to enable farmers to participate in cost-share programs that minimize erosion and improve water quality. Project partners include National Park Service, Potomac Conservancy, West Virginia Stream Partners Program, Canaan Valley Institute, Potomac Headwaters Resource Conservation and Development, USDA Natural Resources Conservation Service, West Virginia Department of Transportation and U.S. Fish and Wildlife Service.

Carbon Sequestration Initiative

Friends of the Potomac

High View, Wv.

Small Watershed Grant: \$20,000

Partner Contributions: \$50,850

Friends of the Potomac will help develop an innovative carbon sequestration credit trading system that will provide farmers with an extra incentive to implement best management practices on their properties. Farmers who participate in the program will receive cash payments for specific best management practices (such as riparian forest buffer plantings) from businesses and other organizations that need or wish to offset their carbon emissions. Project partners include USDA Natural Resources Conservation Service, Cacapon and Lost Rivers Land Trust, West Virginia Conservation Agency, and the Potomac Valley Conservation District.

Green Parking Lot for Dupont Soccer Fields

Martinsburg-Berkeley County Parks & Recreation Board

Falling Waters, Wv.

Small Watershed Grant: \$25,000

Partner Contributions: \$27,500

The Martinsburg-Berkeley County Parks & Recreation Board will design and install a three to five acre "green" parking area as a demonstration of low impact development techniques.

The Chesapeake Bay Small Watershed Grants Program promotes community-based efforts to develop and implement conservation strategies to protect and restore the diverse natural resources of the Chesapeake Bay and its watershed.

The program provides grants to local governments and community organizations working to improve the condition of their local watersheds while building citizen-based resource stewardship. The Small Watershed Grants Program encourages the sharing of innovative ideas among the many organizations wishing to be involved in watershed protection activities.

For more information about the Chesapeake Bay Small Watershed Grants Program and the Chesapeake Bay, visit the Chesapeake Bay Program at www.chesapeakebay.net.

Permanent signage and tours of the completed demonstration site will help educate the community about water quality improvements resulting from such practices. The project will reduce offsite nutrient and sediment delivery and reduce toxins in both surface and ground water. Project partners include the Eastern Panhandle Conservation District, Potomac Headwaters Resource Conservation and Development, Berkeley County School District/Board of Education, Natural Resources Conservation Service and West Virginia Soil Conservation Agency.

Once There Were Beavers

Cacapon Institute

Hardy County, Wv.; Hampshire County, Wv.

Small Watershed Grant: \$35,000

Partner Contributions: \$27,400

The Cacapon Institute will test an innovative method for restoring natural hydrologic functions, flow regimes and ground water levels using structures modeled after beaver dams. The project includes installing approximately 30 in-stream structures and associated monitoring equipment in two Potomac headwaters watersheds. The project is designed to improve water quantity and quality in headwater streams. Project partners include USDA Forest Service, US Fish and Wildlife Service, USDA Natural Resources Conservation Service, West Virginia Conservation Agency and West Virginia University Extension.

Save Our Soil

South Branch Watershed Association of Hampshire County

Hampshire County, Wv.

Small Watershed Grant: \$25,000

Partner Contributions: \$39,400

The South Branch Watershed Association of Hampshire County will develop a watershed management plan for the South Branch Watershed, focusing on the problem of severe stream bank erosion along the South Branch of the Potomac River. Current data on water quality and land use within the watershed will be compiled and a steering committee will be formed to develop a draft plan. Areas of eroding streambank will be restored using natural stream channel design techniques as a demonstration project. Project partners include Canaan Valley Institute, West Virginia Conservation Agency, USDA Natural Resources Conservation Service and Potomac Valley Conservation District.