



# Backgrounder



## Chesapeake Bay Small Watershed Grants Program 2002 Awards

### Community Legacy Grants

The 2002 grants program is being expanded with the creation of the *Community Legacy Grants* initiative. Through the *Community Legacy Grants* program, five grants of \$100,000 are being awarded to innovative projects which either restore vital fish and wildlife habitats, develop locally-supported watershed management plans, or promote environmentally-sensitive development. This initiative is intended to encourage the establishment of partnerships that will create a conservation legacy in communities throughout the Chesapeake Bay watershed. 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.

Paradise Creek Restoration	
Elizabeth River Project	Portsmouth and Chesapeake, Virginia
Community Legacy Grant:	\$100,000
Partnership Funds:	\$169,000

Through this initiative, the Elizabeth River Project will launch a concerted community restoration of Paradise Creek, a distressed urban tributary of the Elizabeth River. The Chesapeake Bay Program's monitoring has determined that the Elizabeth River is the most toxic river within the entire Chesapeake Bay. In this project, a five-year watershed management plan will be developed for Paradise Creek, with specific goals for restoring fish, wildlife, and plants, improving water quality, and sustaining a strong local economy. In addition, a former industrial site will be restored through the planting of 40,000 square feet of forested buffer and 9,000 square feet of new tidal marsh. Project partners include the City of Portsmouth and numerous local businesses and landowners. Partial funding for this grant is provided by the NOAA Community-Based Restoration Center and the NOAA Chesapeake Bay Office.

**Baltimore City Public Schools Greening**

<b>Baltimore City Department of Public Works</b>	<b>Baltimore, Maryland</b>
<b>Community Legacy Grant:</b>	<b>\$100,000</b>
<b>Partnership Funds:</b>	<b>\$307,200</b>

The Baltimore City Department of Public Works will coordinate an innovative community-based project that will provide a large-scale demonstration of environmentally sensitive landscaping techniques. Nine acres of impervious asphalt cover will be removed from the grounds of six local public schools, and these areas will be planted with grasses and Bay-friendly landscaping. Three acres of school building rooftop will be disconnected from existing storm drain systems and the roof drainpipes set to discharge onto the new landscaping areas. The design will trap nutrients and contaminants before they can enter nearby creeks, and will also help to reduce the flow of stormwater. Students, teachers, and other community members will participate in all phases of the project, from design to implementation.

**Little Kishacoquillas Creek Restoration**

<b>Village Pride Association</b>	<b>Belleville, Mifflin County, Pennsylvania</b>
<b>Community Legacy Grant:</b>	<b>\$100,000</b>
<b>Partnership Funds:</b>	<b>\$589,000</b>

The Village of Belleville is restoring 2,000 feet of stream and associated riparian areas in the center of the town. Natural stream morphology will be restored, and riparian buffers planted on both sides of the stream. The Little Kishacoquillas Creek is currently listed as impaired due to excess nutrients and sediment, and much of the creek lacks adequate riparian buffers. This project will be complemented by upstream riparian restoration work in the creek's headwaters area. It is hoped that this comprehensive restoration will help to alleviate the frequent flooding that has plagued downtown Belleville. Project partners include Pennsylvania Department of Environmental Protection's Growing Greener Grants Program, the Federal Emergency Management Agency, the U.S. Fish and Wildlife Service, and Mifflin County.

**Rappahannock Comprehensive Watershed Planning**

<b>Friends of the Rappahannock</b>	<b>Stafford County, Virginia</b>
<b>Community Legacy Grant:</b>	<b>\$100,000</b>
<b>Partnership Funds:</b>	<b>\$194,800</b>

Friends of the Rappahannock will coordinate a major cooperative effort between non-profit organizations, local government agencies, and state agencies to produce a set of comprehensive, action-oriented watershed plans for the tributaries of the Rappahannock River in Stafford County, Virginia. As a part of these plans, specific resource management recommendations will be developed, and the costs and funding options for implementing these recommendations will be determined. One watershed, Claiborne Run, will be targeted for specific on-the-ground demonstration projects aimed at removing the creek from Virginia's list of impaired streams. Projects will include the retrofitting of existing storm water facilities using innovative techniques such as rain gardens and rain barrels that are designed to slow storm water flow and absorb nutrients that would otherwise contaminate the creek. Finally, an innovative program for educating residents about the effects of non-point source pollution will be tested in the communities along Claiborne Run.

<b>St. Mary's River Watershed Management Plan</b>	
<b>St. Mary's College of Maryland Foundation</b>	<b>St. Mary's City, Maryland</b>
<b>Community Legacy Grant:</b>	<b>\$100,000</b>
<b>Partnership Funds:</b>	<b>\$81,800</b>

St. Mary's College of Maryland, in partnership with the Sustainable Development Institute, is coordinating an innovative, whole systems based effort to revitalize the St. Mary's River watershed. Building on work funded by the 2001 Chesapeake Bay Small Watershed Grants Program, a community-wide watershed coalition is being developed to coordinate and catalyze community-based watershed protection activities. Interactive educational and outreach materials will be created that translate scientific data from the College's watershed assessment into meaningful forms that are accessible to lay people. The project will serve as a model for watershed management planning in rural and semi-rural areas throughout the Chesapeake Bay watershed and nationwide.

## **Chesapeake Bay Small Watershed Grants**

*Several projects benefit multiple states or the District of Columbia. These projects are listed under each of the states or the District of Columbia where project activities will occur.*

### **District of Columbia**

#### **Anacostia Islands Nature Preserve**

*Earth Conservation Corps*  
Washington, D. C.

**Small Watershed Grant:**       **\$25,000**  
**Partnership Funds:**       **\$177,500**

The Anacostia Islands Nature Preserve is a community-based environmental education and habitat restoration project on Heritage and Kingman Islands in the Anacostia River. Using NFWF-Chesapeake Bay funding, Earth Conservation Corps will train community members who will, in turn, lead groups of volunteers in the clean up and restoration of riparian habitats on Heritage Island. Project partners include Americorps, National Geographic Society, DC Department of Parks and Recreation, DC Environmental Health Administration, and DC Office of Planning.

#### **Anacostia River Restoration**

*Anacostia Watershed Society*  
District of Columbia and adjacent parts of Maryland

**Small Watershed Grant:**       **\$20,000**  
**Partnership Funds:**       **\$91,800**

The Anacostia Watershed Society is launching a new streambank stabilization project. Volunteers will restore five miles of severely eroded streambanks along the northwest branch of the Anacostia River using old

Christmas trees to stabilize the soil. Additional mulch and soil will be added, and native vegetation planted. Partial funding for this grant is provided by the NOAA Community-Based Restoration Center and the NOAA Chesapeake Bay Office.

#### **Anacostia River Watershed Business Coalition**

*Interstate Commission on the Potomac River Basin*  
Anacostia River watershed, District of Columbia and Maryland

**Small Watershed Grant:**       **\$34,000**  
**Partnership Funds:**       **\$43,878**

The Interstate Commission on the Potomac River Basin, in collaboration with the District of Columbia Environmental Health Administration (DC-EHA), will work with businesses in the Anacostia Watershed to identify specific practices that each business can use to reduce non-point source pollution. Funding from the Small Watershed Grant Program will be used to: conduct site visits and host a workshop; print and mail a quarterly newsletter to participating businesses; and develop and coordinate a network of persons who can provide voluntary technical support to participating businesses. Project partners, in addition to DC-EHA, include Potomac Electric Power Company, Washington Gas, and the Anacostia River Basin Commission.

**Low Impact Development for Urban Watersheds**

*The District of Columbia Office of Planning*  
Washington, DC

**Small Watershed Grant:**       **\$35,000**  
**Partnership Funds:**       **\$100,000**

Low Impact Development (LID) strategies for storm water management apply new technologies and techniques to minimize the adverse environmental impacts that are associated with storm water runoff. Although a number of small-scale LID demonstration projects have been built, methods have yet to be developed for applying LID principles in large scale urban areas. In this project, the District of Columbia Office of Planning will work with staff from the Low Impact Development (LID) Center to develop a set of LID planning procedures that can be applied in urban areas throughout the Chesapeake Bay area. As a test project, a LID master plan will be created for an area of the District of Columbia that is currently undergoing revitalization.

**Maryland****Adkins Arboretum Invasive Species Control**

*Adkins Arboretum*  
Ridgely, Caroline County, Maryland

**Small Watershed Grant:**       **\$12,800**  
**Partnership Funds:**       **\$11,266**

Adkins Arboretum will undertake an invasive species control program to remove four troublesome exotic plant species from two native meadow restoration areas at the Arboretum. The meadows will be enhanced with native forbs and grasses to increase their diversity. A seminar will be held for professionals and the general public on exotic/invasive plant removal techniques. Signs will be installed that explain the significance of the restoration work and its relationship to the Bay's health. Project partners include Chesapeake Wildlife Heritage, Maryland Cooperative Extension's Master Gardeners program, Maryland Conservation Corps, Washington College, and local youth organizations.

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**Annapolis Community Watershed Conservation**

*Alliance for Community Education*  
Annapolis and Anne Arundel County, Maryland

**Small Watershed Grant:**       **\$40,000**  
**Partnership Funds:**       **\$330,800**

Alliance for Community Education will bring together a diverse group of partners, including the City of Annapolis, Anne Arundel County, local developers, civic organizations, and environmental groups, to construct seven demonstration sites showcasing a variety of techniques for environmentally sensitive development. NFWF-Chesapeake Bay funds will be used at a site where a highly innovative technique for preventing clay particles from reaching local streams is being tested. The method uses compost berms to trap the clay particles, which would otherwise cloud water for weeks and clog the gills of fish and other aquatic organisms. It has long been assumed that clay particles could not be controlled on construction sites.

**Antietam and Monocacy Watershed Restoration***Ducks Unlimited*

Antietam and Monocacy Creeks, Maryland

**Small Watershed Grant: \$50,000****Partnership Funds: \$379,474**

This large-scale restoration project will help meet several of the restoration goals established by the Potomac Watershed Partnership and the *Chesapeake 2000* agreement. Twenty-three miles of riparian habitat and 35 acres of wetlands will be restored within the local watersheds, primarily by working with members of the Mennonite and Amish communities. In addition, a set of evaluation techniques will be developed to assess the work of the Conservation Reserve Enhancement Program (CREP) in Maryland. Finally, a stream restoration guide targeted at dairy operations will be published and distributed to major dairy operators in the two focal watersheds. Key project partners include the Maryland Department of Natural Resources, US Fish and Wildlife Service, USDA Forest Service, and the Washington County Soil Conservation District. Funding for this project is provided by the USDA Forest Service and the USDA Natural Resources Conservation Service.

**Bog Turtle Habitat Restoration on Private Lands***Ecosystem Recovery Institute, Inc.*

Gunpowder River headwaters, Maryland and Pennsylvania

**Small Watershed Grant: \$25,000****Partnership Funds: \$50,000**

Ecosystem Recovery Institute will work with farmers to restore and conserve habitat for threatened bog turtles and other wildlife species in the headwaters area of the Gunpowder River in north-central Maryland and adjacent parts of Pennsylvania. This project is part of a larger-scale restoration effort aimed at protecting and restoring critical riparian and wetland habitat throughout the Gunpowder River watershed, which has been identified as a critical region for bog turtle recovery activities. Partners include Maryland Quail Unlimited and the U.S. Fish and Wildlife Service. Foundation funds will be used for salaries and benefits. Funding for this project is provided by the USDA Natural Resources Conservation Service.

**Chesapeake Conservation Challenge***The Conservation Fund*

Wicomico County, Maryland; York and Lancaster Counties, Pennsylvania; and Richmond, Virginia

**Small Watershed Grant: \$50,000****Partnership Funds: \$190,000**

Three areas of critical wildlife habitat will be conserved as a part of this large-scale conservation initiative. A 47-acre wetland in the headwaters of Barren Creek, a tributary of Maryland's Nanticoke River, will be restored using native tree species. In addition, 5 acres of wetlands will be restored and 200 acres of riparian buffer and native warm season grasses will be planted along the lower Rappahannock River in Virginia. Finally, a comprehensive conservation assessment and land protection strategy will be produced for lands owned by electric utilities along the lower Susquehanna River in Pennsylvania. Potential partnerships will be explored with the utilities aimed at long-term preservation of natural resources within the river corridor. Project partners include the Chesapeake Bay Foundation. Partial funding for the project is provided by Bass Pro Shops.

**Chesapeake Bay Wildlife Habitat Stewardship*****Chesapeake Wildlife Heritage***

Queen Anne's, Talbot, and Dorchester Counties, Md.

**Small Watershed Grant: \$49,600****Partnership Funds: \$273,300**

Chesapeake Wildlife Heritage will continue their highly successful wildlife habitat conservation program on Maryland's Eastern Shore. This program has previously received funding through other grant programs of the National Fish and Wildlife Foundation. Under this year's project, 100 acres of wetlands will be restored, 50 acres of wooded riparian buffer will be planted, and 250 acres of native warm season grass meadows will be created. The four hundred acres of restored wildlife habitat will be permanently protected through conservation easements, and approximately two hundred acres will be re-sold to conservation buyers. Project partners include the USDA Natural Resources Conservation Services' Conservation Reserve Enhancement Program (CREP), two local foundations, a local Waterfowl Festival and a dedicated group of volunteers.

**Chester River Farmland Conservation***Chesapeake Fields Institute*

Chestertown, Kent County, Maryland

**Small Watershed Grant: \$40,000****Partnership Funds: \$471,700**

The Chesapeake Fields Institute will continue pioneering research into alternative markets for farmers on Maryland's Eastern Shore. By encouraging farmers to grow value-added crops for specialty niche markets, this project aims to insure that farming remains a viable land use option on Maryland's Eastern Shore. Farmers will be encouraged to implement environmentally benign management

practices and to participate in community-wide environmental stewardship efforts. Project partners include Kent County, the University of Maryland, the Maryland Soybean Board, the Maryland Center for Agro-Ecology, and the Town Creek Foundation.

### **Eastern Neck Restoration and Wetland Nursery**

*National Aquarium in Baltimore*

Baltimore City and Kent County, Maryland

**Small Watershed Grant: \$37,755**

**Partnership Funds: \$36,019**

Elementary school children in the City of Baltimore will help construct two wetland plant nurseries, in which they will grow smooth cordgrass (*Spartina alterniflora*) for the National Aquarium's large-scale marsh restoration project at Eastern Neck National Wildlife Refuge in Kent County, Maryland. The four-acre Eastern Neck site has been created through the beneficial use of dredged materials, and is located within view of the Refuge's headquarters footpath. Project partners include the Friends of Eastern Neck National Wildlife Refuge, the USDA Plant Materials Laboratory, Parks & People Foundation's KidsGrow Program, and the Back River Tributary Team. Funding for this grant is provided by the NOAA Community-Based Restoration Center and the NOAA Chesapeake Bay Office.

### **Gaithersburg Watershed Restoration**

*City of Gaithersburg, Maryland*

Gaithersburg, Maryland

**Small Watershed Grant: \$46,800**

**Partnership Funds: \$42,312**

The City of Gaithersburg is working in partnership with community organizations to improve water quality and implement recommendations of recent stream assessments through riparian forest restoration projects. The City's watershed has been severely degraded by urban development and the presence of two major interstate highways. For this particular project, 200 linear feet of eroding stream bank will be stabilized and restored, while 1,000 feet of riparian forest buffer will be established at two sites. Several Boy and Girl Scout troops as well as staff, students, and parents from two local schools will participate in the restoration activities. The Izaak Walton League and a local for-profit environmental consulting firm are providing technical assistance. Partial funding for this project is provided by the USDA Forest Service.

### **Herring Run Watershed Conservation**

*Herring Run Watershed Association*

Baltimore, Maryland

**Small Watershed Grant: \$25,000**

**Partnership Funds: \$186,100**

Herring Run Watershed Association is continuing a successful program of water quality monitoring and habitat restoration within Baltimore's Herring Run watershed. With NFWF-Chesapeake Bay funding, the association will reforest approximately 200 acres of under-utilized urban brownfields along the creek, and seek permanent protection for these reforested areas as public open space.

In addition, plans will be developed for mitigating an uncontained 170-acre landfill which is leaching contaminants into the creek and which has been nominated for Superfund designation.

### **Island Creek Marsh and Shoreline Conservation**

*Chesapeake Bay Field Lab*

St. George's Island, St. Mary's County, Maryland

**Small Watershed Grant: \$5,000**

**Partnership Funds: \$69,300**

The Chesapeake Bay Field Lab will purchase supplies and materials necessary to engage local schoolchildren in marsh and seagrass restoration projects. Restoration areas are located in and around the mouth of the St. Mary's River in southern Maryland. Project partners include the Chesapeake Bay Trust, St. Mary's College of Maryland, local schools, and numerous local volunteers. Partial funding for this grant is provided by the U.S Fish and Wildlife Service.

### **Jones Falls Watershed Restoration**

*Greater Homewood Community Corporation for the Jones Falls Watershed Association*

Baltimore, Maryland

**Small Watershed Grant: \$50,000**

**Partnership Funds: \$150,000**

Through this project, the Jones Falls Watershed Association will restore 1,000 linear feet of stream and develop a comprehensive management plan for Jones Falls, which has been designated a Priority Urban Water under the Chesapeake Bay 2000 Agreement. Over 70% of the Jones Falls watershed is urbanized, and 59% of the stream miles are without a forested buffer. The stream restoration project will involve channel realignment, reconnecting the channel to the floodplain, recreating step pools, eradicating invasive species, and reestablishing a native forest buffer. The watershed management plan will synthesize and update the existing plans of Baltimore City and Baltimore County into a single plan that incorporates the entire watershed. Project partners include Towson University and the Chesapeake Bay Trust.

**Lower Potomac Habitat Restoration**

*Southern Maryland Resource Conservation and Development Board*

Leonardtown, St. Mary's County, Maryland

**Small Watershed Grant: \$20,000**

**Partnership Funds: \$45,000**

The Southern Maryland Resource Conservation and Development Board, in conjunction with the Lower Potomac Tributary Team, will install a bioretention facility adjacent to the new offices of the St. Mary's County Department of Planning and Zoning. The facility will be designed to absorb storm water runoff and pollutants from 2.5 acres of asphalt parking lots and roadways. Native vegetation will be planted in the bioretention areas, and riparian forest buffers will be restored along a stream that drains from the site. Additional project partners include the Southern Maryland Forestry Service Office and three departments of the St. Mary's County government.

**Nanticoke River SAV Restoration**

*University of Maryland Foundation*

Cambridge, Maryland

**Small Watershed Grant: \$47,320**

**Partnership Funds: \$38,197**

This project will create three 0.5-acre areas of submerged aquatic vegetation (SAV) habitat in the lower Nanticoke River. Local students, teachers, and citizen volunteers will assess site suitability for restoration, propagate and plant eelgrass, monitor the success of the restoration efforts, and share their results with others through the use of the Internet. Project partners include the University of Maryland's Horn Point Laboratory, the Chesapeake Bay Foundation, the Nanticoke Watershed Alliance, the Lower Shore Tributary Team, and Dorchester and Wicomico County public school systems. Funding for this grant is provided by the NOAA Community-Based Restoration Center and the NOAA Chesapeake Bay Office.

**Neff Run Watershed Restoration**

*Allegany Soil Conservation District*

Midland, Allegany County, Maryland

**Small Watershed Grant: \$25,000**

**Partnership Funds: \$95,480**

The Allegany Soil Conservation District will use bioengineering techniques to stabilize and restore severely eroding stream banks along 800 feet of Neff Run and two of its tributaries. 100 feet of riparian forest buffer will also be restored using native tree species. A fish habitat structure will be installed in Matthew's Run, which is a

tributary to Neff Run. This restoration project is closely integrated with the Maryland Bureau of Mines' acid mine drainage abatement project for Neff Run and its tributaries. Other project partners include the Environmental Protection Agency's 319 Program, USDA Natural Resources Conservation Service, Maryland Department of Agriculture, Maryland Department of Natural Resources, Allegany County Department of Community Services, Upper Potomac Tributary Team, and the George's Creek Watershed Association.

**Non-point Source Pollution Prevention**

*Global Action Plan*

Arlington and Fredericksburg, Virginia; Annapolis, Maryland

**Small Watershed Grant: \$50,000**

**Partnership Funds: \$16,881**

One of the major goals of community-based watershed protection is the reduction of non-point source pollution. In the Chesapeake Bay watershed, community watershed organizations have conducted extensive education and outreach campaigns to inform the general public of the actions needed to reduce non-point source pollution. Although these campaigns are generally well received, they often fail to translate into specific actions. In this project, Global Action Plan will apply an innovative approach that recruits and empowers individual households to achieve measurable reductions in their non-point source pollution. If successful, this technique could serve as a model for larger-scale non-point source reduction efforts throughout the entire Chesapeake Bay watershed. Project partners include the City of Annapolis, Weems Creek Conservancy, Arlingtonians for a Clean Environment, Arlington County, and the cities of Alexandria and Falls Church.

**Piney Creek Watershed Conservation**

*Equine Rescue and Rehabilitation*

Parkton, Baltimore County, Maryland

**Small Watershed Grant: \$25,000**

**Partnership Funds: \$71,600**

Equine Rescue and Rehabilitation, a non-profit educational farm located along Piney Creek in Baltimore County, Maryland, will develop a demonstration site for livestock farmers that models best management techniques for improving water quality. 50 acres of steep, eroded pasture land will be restored with native grasses to prevent sediment erosion. The construction of a manure storage facility for the farm will help reduce contamination of the creek and groundwater. A pasture management plan will be developed that uses livestock rotation and other

innovative management techniques to minimize the impact of livestock on steep, easily eroded slopes. Education and outreach efforts will be conducted to inform nearby farmers of the water quality problems that can result from continuous grazing on steep slopes. Project partners include the USDA Natural Resources Conservation Service, a local high school, and faculty from Johns Hopkins University and the University of Maryland. Funding for this project is provided by the USDA Natural Resources Conservation Service.

### **Potomac Gorge Protection and Restoration**

*Potomac Conservancy*

Montgomery County, Maryland; Arlington and Fairfax Counties, Virginia

**Small Watershed Grant:**        **\$20,000**  
**Partnership Funds:**         **\$83,200**

The Potomac Conservancy will combine habitat restoration projects and landowner outreach to restore critical native plant habitat and improve water quality in the Potomac River Gorge. Home to over 200 rare plant species, the Potomac River Gorge is an important area for plant diversity, and is a priority conservation area for both The Nature Conservancy and the National Park Service. Within the gorge, one thousand linear feet of riparian forest buffer will be restored, and a crew of volunteer "Weed Watchers" will be established to monitor ecologically sensitive areas and eradicate invasive plant species. In addition, educational mailings and workshops will inform private landowners along the gorge about steps they can take to minimize impacts on water quality and native plant communities in the gorge. Project partners, in addition to TNC and NPS, include the Fairfax County Park Authority and the Audubon Naturalist Society. Partial funding for this project is provided by the U. S. Fish and Wildlife Service.

### **Severn River Watershed Restoration**

*Severn River Association*

Annapolis, Maryland

**Small Watershed Grant:**        **\$35,000**  
**Partnership Funds:**         **\$117,500**

The Severn River Association is in the process of developing a large-scale community-based watershed restoration strategy for Maryland's Severn River. NFWF-Chesapeake Bay funding will support the completion of this restoration strategy and the preparatory work needed to design and develop at least ten on-the-ground restoration projects. The association will draw on its existing network of over 60 community organizations and

state and local government partners to implement these restoration projects.

### **Smith Island Wetland Restoration**

*Crisfield & Smith Island Cultural Alliance*

Smith Island, Somerset County, Maryland

**Small Watershed Grant:**        **\$6,967**  
**Partnership Funds:**         **\$16,576**

Crisfield & Smith Island Cultural Alliance will hire a part-time staff person to restore one acre of wetlands adjacent to the Smith Island Center's museum. Invasive plants will be removed and native wetland plants re-established. Interpretive signs will be installed to inform museum visitors about the restoration efforts and about native wetland plants. Somerset County will be contributing in-kind goods and services to this project. Funding for this grant is provided by the NOAA Community-Based Restoration Center and the NOAA Chesapeake Bay Office.

### **South River Oyster and SAV Restoration**

*Chesapeake Appreciation, Inc.*

South River, Anne Arundel County, Maryland

**Small Watershed Grant:**        **\$50,000 (NOAA)**  
**Partnership Funds:**         **\$227,000**

Chesapeake Appreciation, Inc., in partnership with the Maryland Department of Natural Resources, will restore a 5-acre oyster reef in Harness Creek, South River, Maryland. The restored reef will be seeded with oyster spat provided by the Oyster Recovery Partnership. The presence of the oysters will help improve water quality, which in turn will improve the likelihood of successful submerged aquatic vegetation (SAV) restoration in Harness Creek. Previous efforts to restore SAV in this area have failed due to poor water quality. Funding for this grant is provided by the NOAA Community-Based Restoration Center and the NOAA Chesapeake Bay Office.

**Susquehanna Watershed Leadership Initiative***Izaak Walton League of America*

Susquehanna River Watershed: Maryland, New York and Pennsylvania

**Small Watershed Grant: \$40,500****Partnership Funds: \$52,500**

Building on work funded under last year's Chesapeake Bay Small Watershed Grants Program, the Izaak Walton League will continue to provide watershed restoration training to communities in the Susquehanna basin. A series of workshops will be offered at sites throughout the Susquehanna watershed to train volunteers and staff of community organizations in techniques for habitat enhancement, stream restoration, and monitoring of restoration sites. These skills will translate into additional on-the-ground restoration projects that will help protect and restore living resources and water quality in the Susquehanna River. Project partners include the Pennsylvania Organization for Watersheds and Rivers, the Upper Susquehanna Coalition and Philip Morris Companies, Inc.

**Takoma Park Riparian and Wetland Restoration***Takoma Park Middle School*

Takoma Park, Maryland

**Small Watershed Grant: \$10,170****Partnership Funds: \$19,160**

275 students from Takoma Park Middle School will participate in conservation education, riparian buffer restoration, and wetland restoration activities. The students will map a stream buffer area 0.25 miles long, remove non-native plants, and re-establish native plants in the riparian area. In addition, the students will help to restore a wetland area at Brookside Gardens, a public arboretum maintained by the Maryland Capital Parks and Planning Commission. Materials are being donated by local nurseries and civic organizations, as well as the Maryland Department of Natural Resources, the Alliance for the Chesapeake Bay, and the Chesapeake Bay Foundation.

**Truxton Park Wetlands Restoration***City of Annapolis Recreation and Parks Department*

Annapolis, Maryland

**Small Watershed Grant: \$32,095****Partnership Funds: \$67,300**

The City of Annapolis is restoring a 1500-foot wetland zone along Spa Creek in Truxton Park, which is located in downtown Annapolis. Offshore fiber logs will be installed to trap sediments from eroding stream banks. The logs

will be planted with native *Spartina* grasses to augment the existing sparse wetland vegetation. Areas of bare soil along the creek bank will be planted with native vegetation to further stabilize the eroding slope. Dramatically eroded footpaths along the shoreline will be repaired or redirected to stabilize the slopes while reducing human impact within the buffer. Members of five community organizations and NOAA's Chesapeake Bay Program Office staff will participate as volunteers in this restoration effort. Funding for this grant is provided by the NOAA Community-Based Restoration Center and the NOAA Chesapeake Bay Office.

**Upper Chesapeake Bay Oyster Reef Sanctuary***Oyster Recovery Partnership*

Upper Chesapeake Bay, near Gales Lump

**Small Watershed Grant: \$50,000****Partnership Funds: \$100,000**

Six thousand cubic yards of rubble from Baltimore's Memorial Stadium are being used to develop a four to five acre oyster sanctuary reef in the upper Chesapeake Bay near Gales Lump. The installation of reef balls, disease-free oyster spat on shells, and supplemental overlying shell will complete the project, which has been designed to support a diverse benthic community, including commercial species of finfish. Project partners include the Maryland Department of Natural Resources, the U. S. Army Corps of Engineers, National Oceanic and Atmospheric Administration, Chesapeake Bay Foundation, and the Maryland Watermen's Association. Funding for this grant is provided by the NOAA Community-Based Restoration Center and the NOAA Chesapeake Bay Office.

**US Naval Academy SAV/Oyster Reef Restoration***Alliance for the Chesapeake Bay*

Annapolis, Maryland

**Small Watershed Grant: \$41,900****Partnership Funds: \$20,500**

The Alliance for the Chesapeake Bay, in partnership with the U.S. Navy and Maryland Department of Natural Resources, will restore an oyster reef and associated submerged aquatic vegetation (SAV) plantings in the Severn River adjacent to Annapolis, Maryland. Approximately 100 linear feet of oyster reef will be created, and 2,000 shoots of SAV planted. The reef will help to slow shoreline erosion at the U. S. Naval Academy. Other project partners include the Oyster Recovery Partnership, NOAA's Chesapeake Bay office, and the Severn River Association. Funding for this grant is provided by the

NOAA Community-Based Restoration Center and the NOAA Chesapeake Bay Office.

### **Western Maryland Karst Sinkhole Education**

*Western Maryland Resource Conservation & Development*

Washington, Carroll and Frederick Counties, Md.

**Small Watershed Grant: \$7,392**

**Partnership Funds: \$7,392**

Karst topography presents a unique set of challenges for watershed management. Limestone sinkholes can rapidly channel surface contamination into groundwater, thereby polluting both streams and drinking water sources. This problem is particularly acute in western Maryland, where surface contaminants readily enter tributaries of the Potomac River. Western Maryland Resource Conservation and Development is developing a 20-page guide that will provide landowners with a clear explanation of water quality problems associated with sinkholes, as well as a compilation of local resources for treating sinkhole problems. This information is not currently being provided by any other source. Project partners include the USDA Natural Resources Conservation Service, Maryland Department of Natural Resources, Maryland Department of Agriculture, Maryland Geological Survey, and multiple local government agencies. Funding for this project is provided by the USDA Forest Service.

### **Whitehall Bay Oyster Reef Restoration**

*Chesapeake Bay Foundation*

Whitehall Bay, Anne Arundel County, Maryland

**Small Watershed Grant: \$50,000 (NOAA)**

**Partnership Funds: \$135,719**

The Chesapeake Bay Foundation will create an intertidal oyster reef along the eastern shore of Whitehall Bay. Thirty piles of marine limestone will be placed parallel to and about 100 yards from shore in 4-6 feet of water. Once completed, the reef will be stocked with 2-3000 seed oysters raised by community volunteers. The restored reef will also serve as a breakwater to help prevent shoreline erosion. Project partners include the Oyster Recovery Partnership, the University of Maryland, the Maryland Department of Natural Resources, and the Maryland Watermen's Association. Funding for this grant is provided by the NOAA Community-Based Restoration Center and the NOAA Chesapeake Bay Office.

## **New York**

### **Owego Creek Watershed Management Plan**

*Tompkins County Soil and Water Conservation District*

Tompkins and Tioga Counties, New York

**Small Watershed Grant: \$26,100**

**Partnership Funds: \$14,800**

The Tompkins County Soil and Water Conservation District will coordinate the preparation of a watershed management plan for Owego Creek, a tributary of the Susquehanna River in New York's Southern Tier. New York State's Department of Environmental Conservation has determined that fish propagation in this creek is threatened by excess nutrients and sediment from agricultural sources. The management plan will identify agricultural practices that can help improve water quality, and four local watershed organizations will work with farmers to implement these strategies. Project partners include the New York State Department of Environmental Conservation, the Upper Susquehanna Coalition, USDA Natural Resources Conservation Service, Ducks Unlimited, and the U. S. Fish and Wildlife Service.

### **Susquehanna Watershed Leadership Initiative**

*Izaak Walton League of America*

Susquehanna River Watershed: Maryland, New York, and Pennsylvania

**Small Watershed Grant: \$40,500**

**Partnership Funds: \$52,500**

Building on work funded under last year's Chesapeake Bay Small Watershed Grants Program, the Izaak Walton League will continue to provide watershed restoration trainings to communities in the Susquehanna basin. A series of workshops will be offered at sites throughout the Susquehanna watershed to train volunteers and staff of community organizations in techniques for habitat enhancement, stream restoration, and monitoring of restoration sites. These skills will translate into additional on-the-ground restoration projects that will help protect and restore living resources and water quality in the Susquehanna River. Project partners include the Pennsylvania Organization for Watersheds and Rivers, the Upper Susquehanna Coalition, and Philip Morris Companies, Inc.

### **Upper Susquehanna Zebra Mussel Outreach**

*Madison County Planning Department*

Madison County, New York

**Small Watershed Grant: \$12,500**

**Partnership Funds: \$12,900**

The Madison County Planning Department will conduct an

extensive public outreach campaign and scientific monitoring aimed at limiting the spread of zebra mussels within the upper Susquehanna River watershed. Efforts will be targeted at recreational boaters using Eaton Brook Reservoir. The reservoir contains the first population of zebra mussels to become established within the Chesapeake Bay watershed, posing an extreme threat to the health of the Bay ecosystem. Funding will be used for scientific testing and preparation of public outreach materials. Funding for this project is provided by the U. S. Fish and Wildlife Service.

## Pennsylvania

### **Bog Turtle Habitat Restoration on Private Lands**

*Ecosystem Recovery Institute, Inc.*

Gunpowder River headwaters, Maryland and Pennsylvania

**Small Watershed Grant:**           **\$25,000**

**Partnership Funds:**               **\$50,000**

Ecosystem Recovery Institute will work with farmers to restore and conserve habitat for threatened bog turtles and other wildlife species in the headwaters area of the Gunpowder River in north-central Maryland and adjacent parts of Pennsylvania. This project is part of a larger-scale restoration effort aimed at protecting and restoring critical riparian and wetland habitat throughout the Gunpowder River watershed, which has been identified as a critical region for bog turtle recovery activities. Partners include Maryland Quail Unlimited and the U.S. Fish and Wildlife Service. Foundation funds will be used for salaries and benefits. Funding for this project is provided by the USDA Natural Resources Conservation Service.

### **Chesapeake Conservation Challenge**

*The Conservation Fund*

Wicomico County, Md.; York and Lancaster Counties, Pa.; and Richmond, Va.

**Small Watershed Grant:**           **\$50,000**

**Partnership Funds:**               **\$190,000**

Three areas of critical wildlife habitat will be conserved as a part of this large-scale conservation initiative. A 47-acre wetland in the headwaters of Barren Creek, a tributary of Maryland's Nanticoke River, will be restored using native tree species. In addition, 5 acres of wetlands will be restored and 200 acres of riparian buffer and native warm season grasses will be planted along the lower Rappahannock River in Virginia. Finally, a comprehensive conservation assessment and land protection strategy will be produced for lands owned by electric utilities along the

lower Susquehanna River in Pennsylvania. Potential partnerships will be explored with the utilities aimed at long-term preservation of natural resources within the river corridor. Project partners include the Chesapeake Bay Foundation. Partial funding for this grant is provided by the Bass Pro Shops.

### **Conestoga Nutrient Trading Pilot**

*Pennsylvania Environmental Council*

Conestoga River watershed, southeastern Pennsylvania

**Small Watershed Grant:**           **\$35,000**

**Partnership Funds:**               **\$795,000**

The Pennsylvania Environmental Council will develop and implement a nutrient trading pilot program for the Conestoga River watershed. Much of the Conestoga watershed is listed as impaired due to phosphorus and sediment, and current conventional treatment technologies and management practices are not adequately controlling nutrient loading in the watershed. The nutrient trading program will enable local stakeholders to trade nutrient credits, with a goal of reducing overall nutrient loading in the watershed. This program will follow the Chesapeake Bay Program's 2001 nutrient trading principles and guidelines. At least one nutrient reduction trade will be completed as part of this project, and a framework will be developed for establishing additional nutrient trading programs statewide.

### **Conodoguinet Creek Dam Removal**

*Trout Unlimited – Cumberland Valley Chapter*

Camp Hill and Newville, Cumberland County, Pennsylvania

**Small Watershed Grant:**           **\$50,000**

**Partnership Funds:**               **\$170,000**

The Cumberland Valley Chapter of Trout Unlimited will work with a variety of partners to remove two run-of-river dams, one on the main stem of Conodoguinet Creek, the other on a tributary to the creek. The dam structures will be removed to the level of the historic streambed and the stream channel restored. These two removals will open up a total of 22 miles of habitat to native anadromous fish. Community volunteers and staff from the Pennsylvania Fish and Boat Commission will monitor fish populations and water quality before and after the removals. Other project partners include EPA's Chesapeake Bay Program, the U. S. Fish and Wildlife Service, American Rivers, and Pennsylvania Department of Environment Protection's Growing Greener Grants Program. Partial funding for this grant is provided by the NOAA Community-Based Restoration Center and the NOAA Chesapeake Bay

Office.

### **Kettle Creek Watershed Conservation**

*Trout Unlimited for Kettle Creek Watershed Association*

Clinton, Potter, and Tioga Counties, Pennsylvania

**Small Watershed Grant: \$35,000**

**Partnership Funds: \$145,800**

Kettle Creek Watershed Association will undertake a series of restoration activities aimed at improving water quality and the health of native brook trout populations in Kettle Creek, a popular recreational stream in north-central Pennsylvania. One-half mile of the creek with eroded banks will be restored using natural stream channel design, and 2.1 miles of new riparian forest buffer will be planted along the creek. In addition, an assessment will be made of the impacts of nearby dirt and gravel roads on creek water quality. Once this assessment is conducted, additional state funds will become available to mitigate the impact of these roads on the creek. Finally, a workshop will be held to educate local landowners about the importance of forest buffers for reducing property erosion. Project partners include the Pennsylvania Department of Environmental Protection's Growing Greener Grants Program, the R. K. Mellon Foundation, and three Pennsylvania state agencies (Department of Forestry, Fish and Boat Commission, and Department of Transportation).

### **Leggetts Creek (PA) Riparian Restoration**

*Lackawanna River Corridor Association*

Scranton, Pennsylvania

**Small Watershed Grant:**

**\$10,000**

**Partnership Funds: \$558,050**

Volunteers from the Lackawanna River Corridor Association and three other community organizations will plant native trees and herbaceous vegetation along 2,000 feet of Leggetts Creek in Scranton, Pennsylvania. The area to be restored is part of a former anthracite coal mine which is located on city property. Initial reclamation work at this site has been funded through Pennsylvania's Growing Greener grants program. The USDA Forest Service's Community Forestry Program will be providing funding for trees and shrubs.

### **Quittapahilla Creek Watershed Assessment**

*Lebanon Valley Conservancy for Quittapahilla Creek Watershed Association*

Lebanon, Pennsylvania

**Small Watershed Grant: \$25,000**

**Partnership Funds: \$195,000**

The Quittapahilla Creek Watershed Association is conducting a comprehensive assessment of conditions in the creek's watershed, which is located in Lebanon County, Pennsylvania. NFWF-Chesapeake Bay funding will be used to collect baseline data on fish and macroinvertebrate communities, sediment transport rates, and water quality. These data will be used to develop a watershed restoration and protection plan for short- and long-term planning and management efforts. Additional funding has been provided by Pennsylvania's Growing Greener grant program, as well as by the U. S. Fish and Wildlife Service.

### **Susquehanna Greenway Partnership Plan**

*Susquehanna Economic Development Association – Council of Governments*

Central Pennsylvania

**Small Watershed Grant: \$35,000**

**Partnership Funds: \$700,000**

The Susquehanna Economic Development Association – Council of Governments will continue the planning process for the Susquehanna Greenway, a large-scale initiative linking human and biological communities along the main stem and west branch of the Susquehanna River in central Pennsylvania. This year's planning effort will focus on completing strategic plans and identifying early-action demonstration projects within six corridor segments along the river. In addition, the compilation of the technical data needed for the implementation of the Greenway project will be completed, and a series of GIS-based maps will be created for reporting and planning purposes.

### **Susquehanna Watershed Leadership Initiative**

*Izaak Walton League of America*

Susquehanna River Watershed: Maryland, New York and Pennsylvania

**Small Watershed Grant: \$40,500**

**Partnership Funds: \$52,500**

Building on work funded under last year's Chesapeake Bay Small Watershed Grants Program, the Izaak Walton League will continue to provide watershed restoration trainings to communities in the Susquehanna basin. A series of workshops will be offered at sites throughout the Susquehanna watershed to train volunteers and staff of community organizations in techniques for habitat enhancement, stream restoration, and monitoring of restoration sites. These skills will translate into additional on-the-ground restoration projects that will help protect and restore living resources and water quality in the Susquehanna River. Project partners include the

Pennsylvania Organization for Watersheds and Rivers, the Upper Susquehanna Coalition, and Philip Morris Companies, Inc.

#### **Volunteer Monitoring of Dam Removal**

*Pennsylvania Organization for Watersheds and Rivers*  
Cumberland and Franklin Counties, Pennsylvania

**Small Watershed Grant: \$40,000**

**Partnership Funds: \$29,000**

Pennsylvania Organization for Watersheds and Rivers, in partnership with American Rivers, will work with three watershed organizations in a demonstration program that uses volunteers to assess the ecological benefits of dam removal. A variety of dam removal monitoring activities will be developed, and pre- and post-removal monitoring will be conducted at three different sites in the Susquehanna and Potomac River watersheds. A guidebook will be published that describes the dam removal monitoring techniques, making it possible to replicate this program in other areas of the Chesapeake Bay watershed.

### **Virginia**

#### **Alexandria Wetland and Buffer Restoration**

*Alexandria Seaport Foundation*  
Alexandria, Virginia

**Small Watershed Grant: \$40,000**

**Partnership Funds: \$50,000**

Working with over 150 in-school and at-risk youth, the Alexandria Seaport Foundation will restore 60 acres of wetlands and 65 acres of shoreline buffers along the Potomac River in Virginia through clean-ups and plantings of native vegetation. This restoration work will help to offset the loss of wetland areas due to the construction of the new Woodrow Wilson Bridge. Project partners include the National Park Service, EPA Office of Water and Wetlands, USDA Natural Resources Conservation Service, the City of Alexandria, Alexandria City Public Schools, Alexandria Juvenile Court Service Unit, and numerous non-profit organizations. Partial funding for this grant is provided by the NOAA Community-Based Restoration Center and the NOAA Chesapeake Bay Office.

#### **Chesapeake Conservation Challenge**

*The Conservation Fund*

Wicomico County, Maryland; York and Lancaster Counties, Pennsylvania; and Richmond, Virginia

**Small Watershed Grant: \$50,000**

**Partnership Funds: \$190,000**

Three areas of critical wildlife habitat will be conserved as a part of this large-scale conservation initiative. A 47-acre wetland in the headwaters of Barren Creek, a tributary of Maryland's Nanticoke River, will be restored using native tree species. In addition, 5 acres of wetlands will be restored and 200 acres of riparian buffer and native warm season grasses will be planted along the lower Rappahannock River in Virginia. Finally, a comprehensive conservation assessment and land protection strategy will be produced for lands owned by electric utilities along the lower Susquehanna River in Pennsylvania. Potential partnerships will be explored with the utilities aimed at long-term preservation of natural resources within the river corridor. Project partners include the Chesapeake Bay Foundation. Partial funding for this grant is provided by the Bass Pro Shops.

#### **Chesterfield Riparian Habitat Restoration**

*Chesterfield County*  
Chesterfield County, Virginia

**Small Watershed Grant: \$19,700**

**Partnership Funds: \$9,100**

The Commonwealth of Virginia's Chesapeake Bay Preservation Act of 1988 mandated protection for 100-foot riparian corridors along 469 miles of perennial streams and wetlands. In 1990, Chesterfield County adopted an ordinance requiring landowners to maintain these riparian corridors in a natural, fully vegetated state. While the county has been successful in applying these rules to commercial and residential developers, many small landowners, especially within residential subdivisions, are unwittingly in violation. In 2000, the county began working with these landowners to educate them about the importance of restoring degraded riparian areas. The present project will construct three demonstration sites, showing how proper management techniques can provide landowners with both water access, views of the water, and a functional riparian forest buffer.

#### **Eastern Shore Watershed Network**

*Eastern Shore Soil and Water Conservation District*

Accomack and Northampton Counties, Virginia

**Small Watershed Grant: \$50,000**

**Partnership Funds: \$98,475**

The Eastern Shore Soil and Water Conservation District will coordinate community watershed monitoring and restoration efforts along Virginia's Eastern Shore. Intensive water quality monitoring will be conducted in six

creeks draining directly into the Chesapeake Bay. Additional intensive studies will be focused on a single watershed to determine priority areas for restoration of submerged aquatic vegetation (SAV). A series of workshops will be offered to educate community members about watershed conservation, and to facilitate the development of a community watershed association.

#### **Four Mile Run Watershed Conservation**

*Arlingtonians for a Clean Environment*

Arlington, Virginia

**Small Watershed Grant: \$49,200**

**Partnership Funds: \$24,700**

Arlingtonians for a Clean Environment will pursue a variety of strategies to improve water quality within the Four Mile Run watershed. Interpretive signs, presentations to community organizations, and a new website will help to educate watershed residents about watershed ecology and the effects of human activities on water quality. Three demonstration sites – one at a business, one at a home, and one at a school – will be created to demonstrate Bay-friendly gardening techniques. In collaboration with Global Action Plan, nine “Eco-Teams” will be started in the watershed to educate neighbors about water quality and to track behavioral changes that lead to water quality improvements. Other project partners include Arlington County, the cities of Alexandria and Falls Church, and the Northern Virginia Conservation Trust.

#### **Goose Creek Rapid Watershed Planning**

*Piedmont Environmental Council, as fiscal agent for*

*Goose Creek Association*

Loudoun and Fauquier Counties, Virginia

**Small Watershed Grant: \$50,000**

**Partnership Funds: \$40,000**

The Goose Creek Association and its partners will develop and begin implementation of a comprehensive watershed management plan for the Goose Creek watershed, which is undergoing rapid development. Final products will include a watershed vulnerability analysis, a comprehensive survey of stream conditions, three detailed subwatershed management plans, and a set of Geographic Information System (GIS) data layers needed for conservation work in the watershed. A broad coalition of local stakeholders, including 11 different organizations and local government agencies, supports the project, which is in a priority area for the Potomac Watershed Partnership. The Piedmont Environmental Council will provide fiscal oversight, while the Center for Watershed Protection will provide technical assistance. Partial funding for this project is provided by the USDA Forest

Service.

#### **James River Watershed (VA) Habitat Restoration**

*James River Association*

James River watershed, south-central Virginia

**Small Watershed Grant: \$45,000**

**Partnership Funds: \$90,000**

The James River Association will restore 50 acres/7 miles of riparian corridor along the lower James River in Virginia. The project area has the largest summer concentration of bald eagles east of the Mississippi and supports anadromous fish such as alewife, shad, herring, and sturgeon. USDA Natural Resources Conservation Service recommendations will be followed in designing and implementing the restoration. Buffers will have an average width of 50 feet. This project will help the Commonwealth of Virginia meet its riparian buffer restoration goals under the *Chesapeake 2000* agreement. The annual goal for buffer restoration in the entire James River watershed is 12.6 miles; this project will restore 7 miles, which is more than 50% of the annual goal for the entire watershed. Funding for this project is provided by the USDA Natural Resources Conservation Service.

#### **James Spiny mussel Habitat Restoration**

*Thomas Jefferson Soil and Water Conservation District*

Albemarle, Fluvanna, and Nelson Counties, Virginia

**Small Watershed Grant: \$50,000**

**Partnership Funds: \$25,000**

The Thomas Jefferson Soil and Water Conservation District will work with farmers and other landowners to restore four miles of riparian buffers along four tributaries of the James River in central Virginia. The presence of these buffers will improve water quality, which will directly benefit the federally endangered James Spiny mussel. The mussel has been extirpated from 90% of its historic range because of water quality degradation. Project sites will be targeted to conserve existing mussel populations and establish potential re-population areas. Partners for this project include the U. S. Fish and Wildlife Service, the Albemarle County Department of Engineering, local conservation organizations, and numerous local landowners. Partial funding for this project is provided by the USDA Natural Resources Conservation Service.

#### **Lake Anna Shoreline Conservation**

*Friends of Lake Anna State Park*

Spotsylvania County, Virginia

**Small Watershed Grant: \$4,000**

**Partnership Funds: \$1,440**

Friends of Lake Anna State Park will demonstrate an alternative approach to shoreline erosion control that is less costly than traditional methods such as rip-rap. Shoreline stabilization at Lake Anna State Park will be achieved by using a combination of bio-logs, cut cedar trees, erosion control matting, and riparian buffer plantings. Funding has been requested for materials only; volunteers from Friends of Lake Anna State Park will provide all of the labor for construction. Project partners include three state agencies (Virginia Department of Conservation and Recreation, Virginia Department of Forestry, Virginia Shoreline Erosion Advisory Service), the York Watershed Council, and Dominion Power.

### **Lexington Bioretention and Biofiltration Basins**

*City of Lexington*

Lexington, Virginia

**Small Watershed Grant: \$10,000**

**Partnership Funds: \$50,000**

The City of Lexington is creating six landscaped beds at the south end of the city's Main Street commercial corridor. Each bed will use vegetation and soils to filter pollutants and reduce the amount of storm water runoff from adjacent streets, parking lots, and building roofs. By constructing these beds, the city will implement a specific recommendation of the comprehensive Wood's Creek Watershed management plan. The biological health of Wood's Creek has been in decline in recent years, and the city is working in partnership with the Izaak Walton League, the Virginia Department of Forestry, the Valley Conservation Council, USDA Natural Resources Conservation Service, and other partners to reverse this decline.

### **Monacan Watershed Management Plan**

*Monacan Soil and Water Conservation District*

Goochland and Powhatan Counties, Virginia

**Small Watershed Grant: \$28,000**

**Partnership Funds: \$37,000**

The Monacan Soil and Water Conservation District will begin the first phase of watershed plan development in Goochland and Powhatan Counties. Workshops will be held to educate county residents, administrators, and landowners about the importance of watershed conservation and to obtain buy-in for the watershed planning process. Simultaneously, a conceptual framework will be developed for the Monacan Soil and Water Conservation District's comprehensive watershed management plan. Project partners include Goochland and Powhatan Counties, Virginia Department of Conservation and Recreation, USDA Natural Resources Conservation Service, Virginia Department of Game and Inland Fisheries, Virginia Cooperative Extension, Ducks Unlimited, and local businesses and non-profit organizations.

### **Non-point Source Pollution Prevention**

*Global Action Plan*

Arlington and Fredericksburg, Virginia; Annapolis, Maryland

**Small Watershed Grant: \$50,000**

**Partnership Funds: \$16,881**

One of the major goals of community-based watershed protection is the reduction of non-point source pollution. In the Chesapeake Bay watershed, community watershed organizations have conducted extensive education and outreach campaigns to inform the general public of the actions needed to reduce non-point source pollution. Although these campaigns are generally well received, they often fail to translate into specific actions. In this project, Global Action Plan will apply an innovative approach that recruits and empowers individual households to achieve measurable reductions in their non-point source pollution. If successful, this technique could serve as a model for larger-scale non-point source reduction efforts throughout the entire Chesapeake Bay watershed. Project partners include the City of Annapolis, Weems Creek Conservancy, Arlingtonians for a Clean Environment, Arlington County, and the cities of Alexandria and Falls Church.

**Piedmont Habitat Corridor Conservation***Piedmont Environmental Council*

Western Virginia

**Small Watershed Grant: \$25,000****Partnership Funds: \$100,000**

The Piedmont Environmental Council will use a combination of strategies to permanently protect 8,500 acres of critical wildlife habitat along riparian corridors in Virginia's Piedmont region. Private landowners will be contacted and encouraged to participate in this large-scale conservation program. Tools that will be available for this effort include revolving funds, purchase of development rights programs, and a newly developed conservation buyer program, in addition to more traditional strategies such as donation of conservation easements. Small Watershed Grant funding will provide support to staff who will be identifying key parcels and conducting landowner outreach. Other project partners include individual donors and a number of regional foundations.

**Potomac Gorge Protection and Restoration***Potomac Conservancy*

Montgomery County, Maryland; Arlington and Fairfax Counties, Virginia

**Small Watershed Grant: \$20,000****Partnership Funds: \$83,200**

The Potomac Conservancy will combine habitat restoration projects and landowner outreach to restore critical native plant habitat and improve water quality in the Potomac River Gorge. Home to over 200 rare plant species, the Potomac River Gorge is an important area for plant diversity, and is a priority conservation area for both The Nature Conservancy and the National Park Service. Within the gorge, one thousand linear feet of riparian forest buffer will be restored, and a crew of volunteer "Weed Watchers" will be established to monitor ecologically sensitive areas and eradicate invasive plant species. In addition, educational mailings and workshops will inform private landowners along the gorge about steps they can take to minimize impacts on water quality and native plant communities in the gorge. Project partners, in addition to TNC and NPS, include the Fairfax County Park Authority and the Audubon Naturalist Society.

**Sandy River Watershed Management Plan***Piedmont Soil & Water Conservation District*

Farmville, Prince Edward County, Virginia

**Small Watershed Grant: \$20,000****Partnership Funds: \$83,400**

The Piedmont Soil and Water Conservation District will complete a watershed management plan for the Sandy

River in south-central Virginia. Restoration projects will help to implement the plan's recommendations. Over a half-mile of riparian forest buffer will be planted with native trees and shrubby vegetation. In addition, fifteen septic systems that have been identified as major contributors to nutrient pollution within the watershed will be pumped out. Project partners include Prince Edward County, USDA's Earth Team volunteers, the Virginia Department of Health, Clean Virginia Waterways, and Longwood College.

**Shenandoah Valley Conservation***Potomac Conservancy*

Winchester, Virginia

**Small Watershed Grant: \$50,000****Partnership Funds: \$50,000**

The Shenandoah Conservation Project is dedicated to securing permanent protection for riparian forest lands in the northern end of the Shenandoah Valley. Less than 30% of riparian forests remain along the Shenandoah River and its tributaries, and significant portions of the existing forests and wetlands are degraded. Jim Lawrence, Shenandoah Conservation Manager at the Potomac Conservancy, will work with private landowners to permanently protect targeted parcels through voluntary easements and enrollment in federal programs such as the Conservation Reserve Enhancement Program (CREP). The program is an important complement to the ongoing restoration work of the Potomac Watershed Partnership. Project partners include the USDA Forest Service, the George Washington-Jefferson National Forest, and the Virginia Department of Forestry. Funding for this project is provided by the USDA Forest Service.

**State of Loudoun County Streams Report***Loudoun County Department of Building and Development*

Loudoun County, Virginia

**Small Watershed Grant: \$25,000****Partnership Funds: \$85,000**

Loudoun County will develop a single, centralized county-wide database for stream water quality monitoring information, including chemical, physical, and biological data. The database will be integrated into the Loudoun County Geographic Information System ("LOGIS"), making these data available for land use planners and other county staff. From the database, a "State of Loudoun Streams" report will be generated that provides an analysis of water quality data, identifies data deficiencies, and identifies areas having greatest need for corrective or restoration efforts. An intensive public outreach campaign will also be launched to educate the county's 169,000

residents about individual actions that can help improve water quality and to develop new watershed associations for underserved areas. Funding for this project is provided by the USDA Forest Service.

### **State of the Shenandoah Valley Report**

*Valley Conservation Council*

Staunton, Virginia

**Small Watershed Grant:           \$17,000**  
**Partnership Funds:                 \$17,000**

The Valley Conservation Council is currently working on a "State of the Valley" report that will provide data on growth, conservation, and land use planning in Virginia's Shenandoah Valley. This funding will allow the report to be printed and copies distributed to nearly 400 land-use decision makers in the Valley's 11 counties, 7 cities, and 30 towns. In addition to the printed report, PowerPoint slide presentations will be developed, illustrating environmentally sensitive models for development, and presenting the results of the "State of the Valley" report. These slide shows will be presented to the public via a series of public forums as well as presentations to local decision-making bodies. Project partners include the Virginia Department of Conservation and Recreation, local land use consultants, and several private foundations. Funding for this project is provided by the USDA Forest Service.

### **Western Loudoun Restoration Project**

*Ducks Unlimited*

Loudoun County, Virginia

**Small Watershed Grant:           \$50,000**  
**Partnership Funds:                 \$74,800**

Through this project, Ducks Unlimited will restore 30 acres of wetlands, restore 3 miles of riparian buffers, and construct 4 demonstration bioretention facilities, or rain gardens, at multiple sites on private lands within the two largest watersheds in Loudoun County, Virginia. Outreach efforts will inform county landowners of the importance of riparian buffers and increase awareness of available cost-share programs. Project partners include the Virginia Department of Forestry, the Potomac Watershed Partnership, Loudoun County Soil & Water Conservation District, USDA Natural Resources Conservation Service, and two local non-profit organizations. Funding for this project is provided by the USDA Forest Service and the USDA Natural Resources Conservation Service.

### **Westmoreland Oyster Reef Restoration**

*Westmoreland County*

Yeocomico River, Westmoreland County, Virginia

**Small Watershed Grant:           \$30,000**  
**Partnership Funds:                 \$102,000**

Westmoreland County is restoring ten acres of oyster reef in Virginia's Yeocomico River. One acre will be a protected "sanctuary" reef while the remaining nine acres will be open to commercial harvest. Westmoreland County currently produces more than three quarters of Virginia's annual oyster harvest. The county's overall goal is to enhance the existing oyster populations through the restoration of 77 acres of reef habitat. In addition to the restoration work, a detailed oyster restoration plan will be developed for the county that is consistent with the guidelines of the Baywide Comprehensive Oyster Restoration Plan. Project partners include the Virginia Marine Resources Commission, the Chesapeake Bay Restoration Fund, and the Port Kinsale Foundation. Funding for this grant is provided by the NOAA Community-Based Restoration Center and the NOAA Chesapeake Bay Office.

### **Yorktowne Square Storm water Management**

*Yorktowne Square Condominium Association*

Falls Church, Virginia

**Small Watershed Grant:           \$50,000**  
**Partnership Funds:                 \$115,000**

Yorktowne Square is a condominium complex in a highly urban area of Fairfax County, Virginia. Recent construction activity has led to impairment of a small creek running through the complex. With Small Watershed Grant funding, the condominium complex will be retrofitted using BayScaping and an innovative storm water management system. One building will be fitted with a "green roof" that filters storm water and recycles nutrients by using natural vegetation. Three rain gardens and four heavily planted drain areas will help reduce the flow and filter storm water runoff. Finally, volunteers will restore riparian forest buffers along the stream. Project partners include Fairfax County's Department of Public Works, the Northern Virginia Soil and Water Conservation District, and the Virginia Department of Forestry.

## West Virginia

### Cacapon and Lost Rivers Watershed Plan Implementation

*Cacapon and Lost Rivers Land Trust*

High View, West Virginia

**Small Watershed Grant:           \$35,000**

**Partnership Funds:               \$518,500**

Cacapon and Lost Rivers Land Trust will build on the successful watershed planning effort that was supported last year by the Chesapeake Bay Small Watershed Grants Program. This year's funding will be used to print and distribute copies of the watershed conservation plan to key landowners and local decision-makers. Owners of areas that are important for watershed protection and wildlife habitat conservation will be invited to participate in workshops that will provide information about conservation options, including voluntary conservation easements. In partnership with the Potomac Conservancy, the Land Trust will also develop a Conservation Buyers program to help local landowners find conservation-minded buyers for key parcels. Other project partners include the National Park Service, Canaan Valley Institute, and several family foundations.

### Tuscarora Creek Watershed Management Plan

*Eastern Panhandle Soil Conservation District*

Martinsburg, West Virginia

**Small Watershed Grant:           \$31,500**

**Partnership Funds:               \$53,800**

The Eastern Panhandle Soil Conservation District is preparing a comprehensive stream corridor and watershed management plan for the entire length of West Virginia's Tuscarora Creek. This creek, 15 miles long, flows into the Opequon, which is in turn a tributary of the Potomac River. Members of thirteen government agencies and local non-profit organizations will inventory land use within the creek's watershed, identify resource concerns, and develop action plans for addressing these concerns. The ultimate goal of this planning effort is the restoration of a "greenway" of riparian wildlife habitat and complementary trails along the creek corridor.