

Backgrounder

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Chesapeake Bay Program
A Watershed Partnership



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.

Under the 2004 program, 93 projects from across the Bay watershed have been selected to receive nearly \$3 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 USDA Forest Service, the National Oceanic and Atmospheric Administration, the Department of the Interior's Office of Surface Mining, the USDA Natural Resources Conservation Service, Altria, and U.S. Fish and Wildlife Service.

2004 Chesapeake Bay Small Watershed Grant Recipients

Chesapeake Bay Small Watershed Community Legacy Grants Initiative

The 2004 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.

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, four 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.

2004 Community Legacy Grants Recipients

Antietam Creek Restoration and Education

Antietam Watershed Association

Waynesboro, PA and Hagerstown, MD

Community Legacy Grant: \$100,000

Partner Contributions: \$114,000

The Antietam Watershed Association will develop an outreach campaign for the Mennonite community and restore riparian buffers within the Antietam watershed. Farmers will be educated about and encouraged to participate in the Chesapeake Bay Foundation's Farm Stewardship Program. The Antietam Watershed Association will provide farmers with materials to fence cattle from 6 miles of stream and restore or enhance 50 acres of riparian buffer and 10 acres of wetlands. A detailed assessment of an urban sub-watershed will also be conducted to identify stormwater management opportunities. Project partners include Chesapeake Bay Foundation, Center for Watershed Protection, Franklin County Conservation District, Beaver Creek Watershed Association, Dickinson College, Penn State Mont Alto, local fly fishing groups and Trout Unlimited.

Builders for the Bay in Blair County, PA

Alliance for the Chesapeake Bay

Blair County, PA

Community Legacy Grant: \$100,000

Partner Contributions: \$100,000

The Alliance for the Chesapeake Bay will develop a comprehensive strategy for Bay-friendly development practices in the Altoona region of Blair County, Pennsylvania. Local roundtable meetings involving 30-60 diverse stakeholders will be held to identify specific recommendations on which codes and ordinances should be changed to help reduce impervious cover, conserve natural areas, and minimize stormwater pollution. These roundtables will be the first in Pennsylvania to incorporate the use of Environmental Advisory Councils to assist local decision makers in code adoption/revision. Project partners include the National Association of Homebuilders, Center for Watershed Protection and the Pennsylvania Environmental Council.

South River Living Shoreline Restoration

Chesapeake Bay Foundation

Annapolis, MD

Community Legacy Grant: \$100,000

Partner Contributions: \$122,900

The Chesapeake Bay Foundation will launch a river-wide implementation framework to guide future living shoreline and estuarine habitat enhancement projects in the South River and complete a demonstration restoration project. Outreach activities will be undertaken to ensure that waterfront landowners and residents in the South River watershed understand the purpose of the framework and how they can help implement it. Project partners include Burke Environmental Associates, Virginia Institute of Marine Science, South River Federation, Flood Brothers Marine Consultants, Community of Wild Rose Shores, Maryland Department of Natural Resources and the National Aquarium in Baltimore.

Working Forest Conservation Initiative

Cacapon and Lost Rivers Land Trust, Inc.

Hardy, Hampshire and Morgan Counties, WV

Community Legacy Grant: \$100,000

Partner Contributions: \$64,000

The Cacapon and Lost Rivers Land Trust, Inc. will conduct a targeted working forest conservation campaign and will initiate a community outreach effort that builds support for watershed management planning in the Cacapon and Lost River watershed. One thousand acres will be added to the Hampshire County working forest conservation hub and 500 acres will be added to each of the Hardy and Morgan County working forest conservation hubs. Project partners will include Potomac Conservancy, Friends of the Potomac Farmland Protection Boards, Trust for Public Land, The Nature Conservancy, National Park Service, County Governments and The Conservation Fund. Funding is provided by the U.S. Environmental Protection Agency and the USDA Forest Service.

2004 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

Pope Branch Watershed Restoration Tree Planting and Outreach

Casey Trees Endowment Fund

Washington, DC

Small Watershed Grant: \$20,000

Partner Contributions: \$19,700

The Casey Trees Endowment Fund will organize volunteer tree planting projects, volunteer training, and community outreach to improve riparian buffers and ultimately water quality within the Pope Branch watershed. Awareness of the watershed and the project will be raised among watershed residents by directly contacting at least 250 households in the watershed and making presentations to various community groups. One 'Citizen Forester' field training session will be conducted for 20 people and include the planting of 10 trees. A minimum of 40 volunteers will participate in two or more tree planting projects resulting in the planting of 100 riparian buffer trees. Project partners will include the Watershed Protection Division of the D.C. Department of Health and the D.C. Department of Parks and Recreation.

Stormwater Abatement Initiative

Chesapeake Bay Foundation

Watershedwide, focus on Anacostia River watershed

Small Watershed Grant: \$50,000

Partner Contributions: \$53,180

The Chesapeake Bay Foundation will partner with the Keith Campbell Foundation for the Environment to produce a series of reports and conduct outreach activities on stormwater pollution abatement and enhancing the capacity of local watershed groups to advance stormwater management policies and actions. The objectives of the Initiative are to: 1) determine the extent of existing stormwater policies and the solutions available to jurisdictions in the Anacostia River watershed; 2) determine the applicability of these policies to other Chesapeake Bay watersheds; and 3) enable watershed organizations and local governments to establish stormwater policies and programs to meet state and federal stormwater control requirements.

Stormwater Education and Downspout Disconnection Workshop Series

D.C. Greenworks/Community Resources

Washington, DC

Small Watershed Grant: \$45,000

Partner Contributions: \$98,300

D.C. Greenworks/Community Resources will decrease the number of households, public facilities and businesses connected to the storm system by encouraging downspout disconnection and water saving. This will thereby reduce the frequency and volume of Combined Sewer Overflows, the amount of pollution entering the Potomac, Anacostia, and Rock Creek waterways, and the strain on the Blue Plains Wastewater Treatment Plant. A minimum of 200 rain barrels will be installed at rowhouses, small non-profit organizations and public facilities in the low-income communities of Shaw, Anacostia and Trinidad. In partnership with the Shaw EcoVillage Project, approximately 10 workshops will be held on downspout disconnection, rain barrel construction and rain garden installation.

Rock Creek Watershed Initiative

Interstate Commission on the Potomac River Basin

Washington, DC and Montgomery County, MD

Small Watershed Grant: \$35,000

Partner Contributions: \$33,800

The Interstate Commission on the Potomac River Basin will establish a citizen's watershed organization for the protection and restoration of the Rock Creek watershed. Three public education meetings on Rock Creek watershed issues will be held to recruit volunteers to start the watershed organization. Members of the new group will be educated through a series of workshops and fieldtrips involving water quality monitoring, visual stream assessment and starting a watershed organization. Project partners will include the Montgomery County Department of Environmental Protection, the City of Rockville, the Maryland National Capital Parks and Planning Commission, the Izaak Walton League of America, the Audubon Naturalist Society, National Park Service, the District of Columbia and the Parks and People Foundation. Funding is provided by the U.S. Environmental Protection Agency.

Marina Outreach and Education

Marina Operators Association of America

Lake Anna, VA; location TBD in Pennsylvania and Maryland

Small Watershed Grant: \$20,000

Partner Contributions: \$50,755

The Marina Operators Association of America will conduct outreach workshops to enhance the boating community's understanding of boating waste disposal and the impacts of aquatic invasive species on recreational waters in the Chesapeake Bay watershed. Two workshops will be conducted and will host a total of 150 leaders in the boating industry including those recruited from 20 local marinas. Project partners will include Clean Marina Initiatives, Marina Technical and Environmental Advisory Committee, Pennsylvania Fish and Boat Commission, and State Organization for Boating Access.

Comprehensive Growing Native Curriculum Development

Potomac Watershed Partnership

Focus on Potomac Watershed

Small Watershed Grant: \$30,000

Partner Contributions: \$17,500

The Potomac Watershed Partnership will collect the curriculum developed by teachers utilizing "Growing Native," a watershed-wide native hardwood seed collection effort to support reforestation of riparian buffers and urban greenways, and develop a standardized curriculum and teachers guide for distribution throughout the entire Chesapeake Bay watershed. A series of workshops will be held to familiarize teachers with the program and encourage hands-on educational opportunities for students. Project partners will include MD Department of Natural Resources, VA Department of Forestry, PA Department of Environmental Protection, local schools, Community Commons, Alliance for the Chesapeake Bay, James Madison University, Interstate Commission for the Potomac River Basin, Ducks Unlimited and the George Washington Jefferson National Forest.

Delaware

Chesapeake and Delaware Canal Purple Loosestrife Reduction Project

Del Bay Retriever Club

New Castle County, DE

Small Watershed Grant: \$8,960

Partner Contributions: \$7,960

The Del Bay Retriever Club will establish a colony of approximately 30,000 purple loosestrife eating specific beetles for the reduction and/or elimination of purple loosestrife, an invasive plant infesting wetland areas along the Chesapeake and Delaware Canal. The beetles will be released and monitored at 5 locations around the Flat Pond area of the Chesapeake and Delaware Canal Lands. Project partners will include the University of Delaware, Delaware Division of Fish & Wildlife and the U.S. Army Corps of Engineers.

Maryland

Eastern Shore Corridor Development

The Adkins Arboretum, Ltd.

Cecil, Kent and Queen Anne's Counties, MD

Small Watershed Grant: \$18,700

Partner Contributions: \$20,000

The Adkins Arboretum will develop a plan to protect a 40-mile section of U.S. Route 301 from Queenstown to the Maryland/Delaware state line. A display, presentation and brochure will be developed. The overall purpose is to retrofit the four-lane highway so it can serve as a model for good land stewardship and educate both out-of-town travelers and the local community on the importance of land management, the connection to the Chesapeake Bay and the cultural and historical aspects of the Eastern Shore. Project partners will include American Farmland Trust, Eastern Shore Land Conservancy, Kent County Planning Office, Maryland State Highway Administration, Queen Anne's County Office of Planning and Zoning and Eastern Shore Heritage, Inc.

Urban Forestry Education

Baltimore City Department of Recreation and Parks
Baltimore City, MD

Small Watershed Grant: \$35,000
Partner Contributions: \$160,500

The Baltimore City Department of Recreation and Parks, in partnership with the Parks and People Foundation, Inc., will develop a unique education and outreach campaign to increase citizen interest and stewardship in urban forestry within the Gwyns Falls, Jones Falls, Back River and Baltimore Harbor watersheds. At least 6,500 people will be educated and a training program for 250 volunteers in watershed urban forest management/maintenance will be conducted. Additionally, 100 acres of park forest will be restored and about 1,500 trees will be planted and 3,000 maintained.

Urban Tree Planting and Education in Baltimore County, Maryland

Baltimore County, Maryland, Department of Environmental Protection and Resource Management
Patapsco and Gunpowder River Basins, Baltimore County, MD

Small Watershed Grant: \$44,700
Partner Contributions: \$59,600

The Baltimore County, Maryland, Department of Environmental Protection and Resource Management (The County) will develop and implement an innovative market-based approach to increase the planting of trees on private properties by homeowners in the urban areas of Baltimore County, Maryland. The County will offer a coupon for \$10 that is redeemable toward the purchase of a native tree from a local participating retailer. The County would provide \$5 of the \$10 discount and the participating retailers would be required to provide an equal match in exchange for participating in the campaign. The goal will be to redeem \$50,000 in coupons, resulting in the planting of 10,000 trees.

Rural Residential Stewardship Initiative

Baltimore County, Maryland, Department of Environmental Protection and Resource Management
Patapsco and Gunpowder River Basins, Baltimore County, MD

Small Watershed Grant: \$27,200
Partner Contributions: \$10,800

Baltimore County, Maryland, Department of Environmental Protection and Resource Management (DEPRM) will develop and pilot implementation of the *Rural Residential Stewardship Initiative*, an innovative partnership to educate rural residential landowners on their important role in protecting forest habitat and living resources. In cooperation with the Gunpowder Conservancy and the Greater Baltimore Group of the Sierra Club, DEPRM will develop general education materials for approximately 2,500 rural landowners on the need for a cooperative management approach for rural stream and forest systems. Five sub-watersheds will be selected and those landowners will receive detailed information and technical assistance on the control of invasive species and the establishment of riparian buffers.

Brooklyn and Curtis Bay Watershed Plan Development

The Brooklyn and Curtis Bay Coalition
Brooklyn and Curtis Bay, MD

Small Watershed Grant: \$ 20,000
Partner Contributions: \$415,000

The Brooklyn and Curtis Bay Coalition will unite various stakeholders including city agencies, developers, industry, neighborhood associations, schools and residents to develop a watershed management plan for the Brooklyn and Curtis Bay areas. The Coalition will conduct surveys, collect and analyze data, research completed and effective management plans, set goals and objectives for all constituents, create benchmarks to monitor progress and hold all stakeholders accountable. Major project partners will include The Concerned Citizens for a Better Brooklyn and the Community of Curtis Bay, Baltimore City Planning Department, Civic Works, Park Conservation and Community Outreach, Parks and People Foundation, Baltimore Harbor Watershed Association and other local organizations.

Urban Watershed Forestry Tools

Center for Watershed Protection
Ellicott City, MD

Small Watershed Grant: \$32,700
Partner Contributions: \$33,000

The Center for Watershed Protection (CWP) will produce a technical manual on using trees for stormwater treatment and planting trees in the urban landscape. Topics covered will include site preparation techniques, reforestation techniques, site assessment, species selection and special considerations required for urban tree plantings. CWP will also develop five watershed forestry training modules for use at various local and national workshops and on their technical website. The proposed modules include *Sensitive Land Design Principles*, *Forest Conservation Tools*, *Forest Conservation Assessment Methods*, *Stream Buffer Design and Reforestation*, and an interactive exercise, *The Watershed Context*.

Blue Crab Nursery Construction

Chesapeake Environmental Planners
Kent, Talbot and Anne Arundel Counties, MD

Small Watershed Grant: \$37,000
Partner Contributions: \$25,000

The Chesapeake Environmental Planners, in cooperation with the University of Maryland Center of Marine Biotechnology, the Smithsonian Environmental Research Center and the Maryland Watermen's Association, Inc., will construct "grow out" nursery tanks for up to 500,000 juvenile blue crabs. Over 100 community volunteers will be involved in the initial stages of construction and management of the tanks. The blue crabs will be reared in a laboratory and then transferred to this nursery facility to be held until released into the ecosystem.

Agricultural Preservation on Maryland's Eastern Shore

Chesapeake Fields Institute

Cecil, Kent and Queen Anne's Counties, Maryland

Small Watershed Grant: \$40,000

Partner Contributions: \$160,454

Chesapeake Fields Institute will market their findings on the economic feasibility of potential value-added agricultural crops to the general public and farmers on Maryland's Eastern Shore. They will develop a database of at least 1,500 farmers, establish at least 50,000 points of information through web site hits, newsletter circulation, brochures, paid ads, newspapers and audience members and engage at least 750 farmers in communication (by phone or presentations). Project partners include County Commissioners of Kent County, Rural Maryland Council, John Ben Snow Foundation, Wallace Foundation, Town Creek Foundation and Pew Charitable Foundation.

Stormwater Abatement Initiative

Chesapeake Bay Foundation

Watershed Wide

Small Watershed Grant: \$50,000

Partner Contributions: \$53,180

The Chesapeake Bay Foundation will partner with the Keith Campbell Foundation for the Environment to produce a series of reports and conduct outreach activities on stormwater pollution abatement and enhancing the capacity of local watershed groups to advance stormwater management policies and actions. The reports will focus on the extent of existing stormwater policies in the Anacostia River watershed, the applicability of these policies to this watershed and others and will also outline an outreach strategy.

Chester River Farm Management

Chesapeake Wildlife Heritage

Queen Anne's County, MD

Small Watershed Grant: \$35,000

Partner Contributions: \$97,125

The Chesapeake Wildlife Heritage will work with landowners to reduce agricultural pollution in the Chester River and improve wildlife habitat on area farms. Management plans for approximately 20 properties will be developed and implemented. Winter wheat cover crops will be established on 150 acres. Riparian buffers will be planted on 50 acres and warm season grass meadows and buffers on 200 acres. In partnership with Queen Anne's County Department of Conservation and Recreation, a demonstration site will be established at Conquest Preserve to model the various land management techniques for the landowners.

Radcliffe Creek Small Watershed Action Plan

Chester River Association

Town of Chestertown, MD

Small Watershed Grant: \$35,000

Partner Contributions: \$53,200

The Chester River Association will develop a detailed watershed management plan for the Radcliffe Creek watershed and begin its implementation. At least 50 citizens will be engaged in community-based "Creekkeeper" programs that will monitor stream health, map and stencil storm drains and adopt and promote homeowner best management practices. Implementation will begin with the

restoration of 2 acres of wetlands at 3 sites and the development of a low impact development site plan for a high-profile abandoned lot. Project partners include Alliance for the Chesapeake Bay, Town of Chestertown, Kent County Parks and Recreation, Kent County Planning and Zoning, Kent Soil and Water Conservation District and Washington College.

Lower Beaverdam Creek Restoration

Cheverly United Methodist Church (for Friends of the Beaverdam watershed)

Prince George's County, MD

Small Watershed Grant: \$8,100

Partner Contributions: \$17,180

The Friends of Beaverdam Watershed will conduct outreach and remove invasive species from Woodworth Park, which surrounds a 1,700 ft. section of the Lower Beaverdam Creek, the most polluted tributary of the Anacostia River. A brochure with a map of the mini-watershed, with locations of stormwater inlets which drain into the stream, will be distributed to watershed residents. Recommendations for watershed restoration activities will be compiled and distributed to town, county and state officials. Project partners include the Town of Cheverly, Maryland Native Plant Society, Anacostia Watershed Society, Safe Passages, Prince George's Heritag, Inc., and Cheverly United Methodist Church.

Back Creek Nature Park Rain Garden

City of Annapolis

Annapolis, MD

Small Watershed Grant: \$30,000

Partner Contributions: \$49,300

The City of Annapolis will design and install a 1,200 square foot demonstration rain garden in the Back Creek Nature Park where there is currently insufficient stormwater management and infiltration from the adjacent parking area and surrounding impervious surfaces. The rain garden will handle and treat stormwater runoff from approximately 1 acre of upland area. Interpretative signage will be installed at the site to educate community visitors and local school children who use the park as a living classroom.

Low Impact Development Retrofit and Wetland Restoration Demonstration

City of Bowie

City of Bowie, MD

Small Watershed Grant: \$ 25,000

Partner Contributions: \$ 580,000

The City of Bowie will retrofit two adjacent City parking lots to filter stormwater runoff into an existing wetland. They will remove the asphalt, replace it with permeable concrete pavers, install a bio-retention cell and plant significant landscaping, including trees. Educational signage will be installed to educate the community on the retrofits and the benefits to water quality. Close collaboration with Prince George's County planning agencies may influence future development standards and result in adopted policies to make low impact development more feasible. Project partners include Prince George's Department of Environmental Review, Maryland Department of Natural Resources, Center for Chesapeake Communities and Maryland National Capital Park and Planning Commission.

Community-Based Tidal Wetland Restoration

Delmarva Discovery Center, Pocomoke Marketing Partnership
Pocomoke City, Maryland

Small Watershed Grant: \$11,550
Partner Contributions: \$10,770

The Delmarva Discovery Center will remove a paved area and restore a tidal wetland in Pocomoke City, Maryland. Six high schools and eight paid interns will assist in the removal of 0.05 acres of paved area at the Pocomoke River Exploratory and the planting of native species. Additionally, students will restore and expand a tidal wetland and an educational bald cypress garden by removing invasive species, planting native vegetation and replacing explanatory signage.

Havre de Grace Stormwater Reduction

Havre de Grace Maritime Museum
Havre de Grace, MD

Small Watershed Grant: \$25,000
Partner Contributions: \$21,000

Havre de Grace Maritime Museum will improve riparian buffers and install stormwater retrofits on the Museum grounds to serve as a model for the local community. Citizen volunteers and staff will remove invasive plant species from a 0.29 acre buffer area and re-vegetate it with native, under story plants to increase the stormwater filtering capacity of the buffer. Rain barrels and a rain garden will also be installed to reduce stormwater run-off from the Museum's roof by 50%. Project partners will include City of Havre de Grace and the Alliance for the Chesapeake Bay, Inc.

Herring Run/Back River Subwatershed Action Plans

Herring Run Watershed Association
Baltimore County, MD

Small Watershed Grant: \$25,000
Partner Contributions: \$32,500

The Herring Run Watershed Association will develop three subwatershed action plans as part of a multi-year plan to develop a community watershed action plan for the Herring Run and Back River Watersheds. Stream data will be collected, restoration opportunities identified and restoration projects implemented in each watershed. Community members will be involved in a 1.5 acre riparian buffer planting as part of Baltimore City's Moores Run Watershed Plan. Project partners will include Baltimore City Department of Public Works Environmental Services Division, Baltimore County Department of Environmental Protection and Resource Management and Morgan State University.

Rock Creek Watershed Initiative

Interstate Commission on the Potomac River Basin
Montgomery County, MD

Small Watershed Grant: \$35,000
Partner Contributions: \$33,800

The Interstate Commission on the Potomac River Basin will establish a citizen's watershed organization for the protection and restoration of the Rock Creek watershed. Three public education meetings on Rock Creek watershed issues will be held to recruit volunteers to start the watershed organization. Members of the new group will be educated through a series of workshops and

fieldtrips involving water quality monitoring, visual stream assessment and starting a watershed organization. Project partners will include the Montgomery County Department of Environmental Protection, the City of Rockville, the Maryland National Capital Parks and Planning Commission, the Izaak Walton League of America, the Audubon Naturalist Society, National Park Service, the District of Columbia and the Parks and People Foundation.

Susquehanna Watershed Leadership Initiative-III

Izaak Walton League of America
Susquehanna Watershed, PA, MD

Small Watershed Grant: \$50,000
Partner Contributions: \$265,000

The Izaak Walton League of America (IWLA) will continue to build the capacity of communities within the Susquehanna River Basin to conduct watershed restoration and stewardship activities by conducting five workshops and providing follow-up technical assistance. IWLA will also partner with over 100 Amish farmers in Lancaster County, Pennsylvania to educate and train them in farm best management practices. Community members and farmers will complete restoration projects including fencing livestock from 50,000 ft. of stream and restoring/enhancing 6 miles of riparian buffer. Project partners include multiple foundations, Pennsylvania Watershed Organization for Watersheds and Rivers, Upper Susquehanna Coalition and the U.S. Fish and Wildlife Service.

Middle Branch of the Patapsco River Restoration

The National Aquarium in Baltimore
Baltimore County, MD

Small Watershed Grant: \$49,900
Partner Contributions: \$33,700

The National Aquarium in Baltimore will create three acres of "living shoreline" tidal wetlands at a site on the Middle Branch of the Patapsco River, Maryland. The Aquarium will develop a customized manual for the Middle Branch community volunteers and involve at least 250 local citizens in the installation of 60,000 units of native marsh grass. They will also identify and train a local conservation group to take over, with Aquarium oversight, the long-term maintenance and monitoring of the wetland.

Pickering Creek Riparian Buffer Restoration and Education

National Audubon Society
Easton, MD

Small Watershed Grant: \$ 8,500
Partner Contributions: \$16,000

The National Audubon Society will conduct an education campaign and enhance an existing riparian buffer to increase local awareness of the importance of healthy riparian buffers in the Chesapeake Bay ecosystem. At least 100 volunteers will assist in enhancing an existing one acre, riparian buffer along Pickering Creek by removing exotic vegetation and planting native trees, shrubs and forbs. Ten seminars on invasive and exotic species, using the restored area as an example, will explain the methods and reasons for conducting this type of restoration. Project partners include the Pickering Creek Audubon Center, Easton High School and Boy Scouts of America Troop #8.

Restoration Training for Faith-Based Organizations

National Council of Churches USA

Annapolis, MD

Small Watershed Grant: \$12,200
Partner Contributions: \$11,000

The National Council of Churches (the Council) will educate the religious community to increase their participation in restoring and protecting the Chesapeake Bay. The Council will host a 1.5 day training event for 75-150 faith-based activists that includes outreach strategies, field trip opportunities, networking sessions, restoration techniques and train-the-trainer sessions. A demonstration project on Bayscaping techniques will be conducted on the grounds of a church in Annapolis. The Council will also develop a water action guide and distribute it to 300 congregational representatives, reaching a total of 50,000 individuals. Project partners include the Environmental Leadership Program, the Sierra Club, and the Interfaith Coalition on the Environment.

Development of a Habitat Conservation Plan for Delmarva Fox Squirrel and Eastern Shore Forests

Partnership for Sustainable Forestry

Maryland Eastern Shore

Small Watershed Grant: \$41,850
Partner Contributions: \$56,880

The Partnership for Sustainable Forestry will develop a Habitat Conservation Plan (HCP) for the Delmarva Fox Squirrel, a federally listed endangered species native to the Eastern Shore of Maryland. The HCP will coordinate conservation efforts of forest managers on public and private land, identify key blocks of contiguous forest for targeted conservation actions and monitor status and changes of forest habitats in order to protect the Delmarva Fox Squirrel's preferred habitat of mature pine or mixed hardwood pine stands. Project partners include the Maryland Department of Natural Resources and the Association of Forest Industries.

Comprehensive Growing Native Curriculum Development

Potomac Watershed Partnership

Focus on Potomac Watershed

Small Watershed Grant: \$30,000
Partner Contributions: \$17,500

The Potomac Watershed Partnership will collect the curriculum developed by teachers utilizing "Growing Native," a watershed-wide native hardwood seed collection effort to support reforestation of riparian buffers and urban greenways, and develop a standardized curriculum and teachers guide for distribution throughout the entire Chesapeake Bay watershed. A series of workshops will be held to familiarize teachers with the program and encourage hands-on educational opportunities for students. Project partners will include MD Department of Natural Resources, VA Department of Forestry, PA Department of Environmental Protection, local schools, Community Commons, Alliance for the Chesapeake Bay, James Madison University, Interstate Commission for the Potomac River Basin, Ducks Unlimited and the George Washington Jefferson National Forest.

Watershed Restoration Institute-II

River Network

Reisterstown, MD

Small Watershed Grant: \$20,000
Partner Contributions: \$225,000

The River Network will conduct an inaugural Watershed Protection Institute to train and equip 80-100 representatives from watershed organizations, local government agencies and consulting firms throughout the Chesapeake Bay area. The training will include information on how to quickly diagnose watershed problems, apply eight tools of watershed protection, conduct a local site planning roundtable, prepare small watershed plans and involve the community in implementation. Up to eight hours of follow-up assistance will be provided to watershed associations. Project partners include J. Keith Campbell Foundation and Chesapeake Bay Trust.

South River Management Plan Completion

South River Federation

Anne Arundel County, MD

Small Watershed Grant: \$25,000
Partner Contributions: \$35,000

The South River Federation will complete a plan for the entire 55 square mile South River watershed. In coordination with the Center for Watershed Protection, Anne Arundel County and volunteers, the South River Federation will conduct stream and retrofit assessments for the remaining nine subwatersheds of the South River. The plan will contain prioritized stream buffer plantings, community based stormwater retrofits, stream restoration areas, trash cleanup areas and potential illicit discharge locations. A 'River Steward' program will also be developed and implemented to engage local businesses in pollution prevention actions and retrofits.

Port Tobacco River Watershed Management Plan

Southern Maryland Resource Conservation and Development, Inc.

Charles County, MD

Small Watershed Grant: \$35,000
Partner Contributions: \$60,047

The Southern Maryland Resource Conservation and Development, Inc., in partnership with the Port Tobacco River Conservancy and the Center for Watershed Protection, will develop a Baseline Characterization and Community Outreach Campaign for the first portion of the Port Tobacco River watershed management plan initiative. A septic system survey will be conducted and the results will be used to create targeted septic system outreach materials. Two training workshops will be conducted on potential topics such as illicit discharge detection and unified stream assessment.

Spa Creek Watershed Management Plans

Spa Creek Conservancy, Inc.

Annapolis, MD

Small Watershed Grant: \$35,000

Partner Contributions: \$28,000

The Spa Creek Conservancy will develop a watershed management plan for the 1,300 acre Spa Creek Watershed focusing on approximately 2 miles of the severely degraded non-tidal headwaters. Locations for restoration projects, pollution prevention, trash clean-ups, reforestation projects and stormwater retrofits will be identified along with the estimated costs of implementation. Project partners include the Center for Watershed Protection, Chesapeake Children's Museum, United States Naval Academy, City of Annapolis and Free State Press, Inc.

Hunting Creek Watershed Education

Thorpe Foundation/Thorpe Wood

Frederick County, MD

Small Watershed Grant: \$30,000

Partner Contributions: \$10,930

The Thorpe Foundation/Thorpe Wood will educate and engage residents of Hunting Creek Watershed in conserving, preserving and improving the health of the subwatersheds in which they live and work. A minimum of 250 residents will be educated about conservation and preservation through a multi-faceted awareness and education initiative that will include workshops, an interactive website, signage and a community-wide event. Project partners include Catoctin Mountain National Park, Cunningham Falls State Park, Gambrill State Park, Frederick City, Frederick County, Project WET, Maryland Department of Natural Resources, Community Commons, Potomac Conservancy, Catoctin Land Trust and Canaan Valley Institute.

Town Hall Stormwater Retrofits

Town of Highland Beach

Highland Beach, Anne Arundel County, MD

Small Watershed Grant: \$35,000

Partner Contributions: \$370,700

The Town of Highland Beach will install a vegetated roof, cistern, two rain barrels and a rain garden at the Highland Beach Town Hall. This project will serve as a model facility to demonstrate how to build a green facility on a residential scale, with applications for local governments as well. Community residents and visitors will be educated through hands-on presentations, tours, workshops and a CD on the green building design and implementation, with a focus on methods to protect the Chesapeake Bay. Project partners include the State of Maryland, Anne Arundel County, Maryland Energy Administration, LEED Accredited Consultant, Highland Beach Citizens Association and the Chesapeake Bay Foundation.

Prettyboy Watershed Outreach and Education

Trust for Public Land

Carroll County and Baltimore County, MD and York County, PA

Small Watershed Grant: \$ 30,100

Partner Contributions: \$114,100

The Trust for Public Land will educate Prettyboy watershed residents on the watershed and engage them in stewardship opportunities. The Trust for Public Land and the Prettyboy Watershed Alliance staff, will

conduct at least 16 public presentations to a variety of locally based citizen groups, organize a Spring Watershed Celebration to educate at least 600 residents on general watershed concepts, conduct three restoration/stewardship workshops to train at least 60 community leaders and organize four riparian buffer plantings. Project partners include Genesee Valley Outdoor Learning Center, Alliance for the Chesapeake Bay, Bear Branch Nature Center and the Gunpowder Valley Conservancy.

Sandy Point Integrated Ecosystem Restoration

University of Maryland Center for Environmental Science

Solomons Island, MD

Small Watershed Grant: \$ 50,000

Partner Contributions: \$ 90,300

The University of Maryland Center for Environmental Science, Chesapeake Bay Biological Laboratory and the Maryland Sea Grant Extension Program will restore degraded aquatic habitat of Sandy Point, Solomons Island, Maryland. Breakwaters will be created to dissipate wave energy, oyster reefs will be established behind each breakwater and along the shoreline and submerged aquatic vegetation will be planted. A community-based oyster growing program will also be developed in partnership with the Calvert County Board of Education's CHESPAX program. At least 1,400 fourth grade students and 1,400 seventh grade students will be involved in restoration and education activities.

Weems Creek Living Shoreline Demonstration

Weems Creek Conservancy

Annapolis, MD

Small Watershed Grant: \$6,300

Partner Contributions: \$7,000

The Weems Creek Conservancy will transform 300 linear feet of riprap into a living shoreline on private property in Weems Creek, a tributary to the Severn River. The interstitial spaces between the riprap rocks will be filled with a sand/compost mix and the shoreline regraded to the low tide zone. Local volunteers will plant native species to establish a fringe marsh adjacent to upland plants. Project partners include Greenman Perderson, Inc and Burke Associates.

Kempton Mine Complex Monitoring

Western Maryland Resource Conservation and Development

Garrett County, MD

Small Watershed Grant: \$45,000

Partner Contributions: \$64,000

The Western Maryland Resource Conservation and Development will implement water quality monitoring programs at three sites affected by acid mine drainage in the Kempton Mine Complex, Maryland. Long-term solutions to the water-quality problem caused by abandoned mines will be investigated. A "technology transfer" program and education materials will be created for local-decision makers, power companies, engineers and contractors. Additional project partners include the Maryland Department of Natural Resources-Power Plant Research Program, Maryland Department of the Environment-Bureau of Mines and Trout Unlimited.

Submerged Aquatic Vegetation Restoration Using Seeds

The Wildfowl Trust of North America, Inc.

Grasonville, Maryland

Small Watershed Grant: \$50,000
Partner Contributions: \$67,000

The Wildfowl Trust of North America will define the optimal seed processing and storage methods of submerged aquatic vegetation seeds. They will then produce viable seed stock necessary to plant 10 acres of underwater grasses at a density of 2 seeds per square foot of Bay bottom. Various community groups will assist in isolating and counting seeds for testing and will also participate in the field planting. Project partners include National Oceanographic and Atmospheric Administration, Maryland Department of Natural Resources, Anne Arundel Community College, Maryland Conservation Corps and the University of Maryland Center on Aging-Legacy Leadership Institute for the Environment.

Woodberry Woods Watershed Assessment

Woodberry Land Trust, Inc.

Jones Falls River Watershed

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

The Woodberry Land Trust, Inc. will conduct a watershed and stream assessment for the Woodberry Forest and Greenspring and Coldspring watersheds. Utilizing the data gathered by a consulting team and trained community volunteers, a comprehensive Watershed Restoration and Management Plan and Forest Resource Management Plan will be developed. The plan will include restoration and management strategies for problem areas. Project partners include the Baltimore City Department of Parks and Recreation, Baltimore Department of Public Works, Maryland Environmental Trust, Streuver Bros. Eccles & Rouse and Loyola College.

Pennsylvania

Emigh Run Stream Restoration

Boggs Township

Wallaceton, Clearfield County, PA

Small Watershed Grant: \$25,500
Partner Contributions: \$8,975

Boggs Township will complete the design and engineering work necessary to restore 0.42 miles of heavily degraded stream in the headwaters region of Emigh Run. The stream now flows through an abandoned mine spoil area, degrading the water quality. Preliminary plans call for the relocation of the stream channel outside the spoil area. Project partners include the Emigh Run Lakeside Watershed Association, West Branch Area School District, and the Senior Environmental Corps.

Siloam Dam Removal

Borough of Chambersburg

Green Township, Franklin County, PA

Small Watershed Grant: \$25,000
Partner Contributions: \$45,000

The Borough of Chambersburg proposes to remove Siloam Dam and restore the upstream impoundment to its free flowing natural state. This award will be used for the physical removal of the 8-foot-high run-of-the-river dam located on the Conococheague Creek and stream bank plantings along 2,000 linear feet of the former impoundment shoreline. The removal should benefit American eel and resident fish species such as trout and smallmouth bass. Project partners include American Rivers, the Conococheague Watershed Association, the Pennsylvania Fish and Boat Commission, and the Pennsylvania Department of Environmental Protection.

Agricultural Riparian Buffer Restoration Program

Centre County Conservation District

Centre County, PA

Small Watershed Grant: \$35,000
Partner Contributions: \$282,661

Centre County Conservation District will work with local farmers on a voluntary basis to improve conditions in riparian areas on private working farms in Centre County. Streambank fencing will be installed, streambank crossings will be stabilized, alternative watering sources will be provided for livestock, and damaged riparian areas will be restored through vegetative plantings and streambank stabilization. An estimated 14,700 linear feet of riparian stream buffer will be restored through this project. Project partners include the Pennsylvania Department of Environmental Protection and individual landowners.

Abandoned Mine Reclamation: MR FROG

Clearfield County Conservation District

Clearfield County, PA

Small Watershed Grant: \$21,500
Partner Contributions: \$12,667

The Clearfield County Conservation District will design and install a passive treatment system that will abate an abandoned mine drainage discharge that currently flows into Morgan Run. This discharge, identified as "MR FROG," adds 6.8 pounds of acidity, 1 pound of iron, and 1.2 pounds of aluminum each day to the stream. Treatment options to be considered include the use of limestone and/or compost to reduce stream acidity and absorb dissolved metals. Project partners include the Morgan Run Watershed Group, Susquehanna River Basin Commission, Pennsylvania Department of Environmental Protection, and Clearfield County Senior Environmental Corps.

Abandoned Mine Reclamation: MR TUFF

Clearfield County Conservation District

Clearfield County, PA

Small Watershed Grant: \$21,500

Partner Contributions: \$12,667

The Clearfield County Conservation District will design and install a passive treatment system that will abate an abandoned mine drainage discharge that currently flows into Morgan Run. This discharge, identified as "MR TUFF," adds 20 pounds of acidity, 1.5 pounds of iron, and 1.2 pounds of aluminum each day to the stream. Treatment options to be considered include the use of limestone and/or compost to reduce stream acidity and absorb dissolved metals. Project partners include the Morgan Run Watershed Group, Susquehanna River Basin Commission, Pennsylvania Department of Environmental Protection, and Clearfield County Senior Environmental Corps.

Morgan Run Watershed Restoration Plan

Clearfield County Conservation District

Clearfield County, PA

Small Watershed Grant: \$14,100

Partner Contributions: \$14,848

The Clearfield County Conservation District will work with the Morgan Run Watershed Group to develop a comprehensive restoration plan for Morgan Run. Data on water quality, aquatic life, and fish populations will be obtained from on-going monitoring activities of the Susquehanna River Basin Commission. Abandoned mine lands and sources of acid mine drainage will be identified and mapped as the first step in developing restoration and remediation plans. Project partners include the Susquehanna River Basin Commission and the Clearfield County Senior Environmental Corps.

Stormwater Abatement Initiative

Chesapeake Bay Foundation

Watershed Wide, focus on Anacostia River watershed

Small Watershed Grant: \$50,000

Partner Contributions: \$53,180

The Chesapeake Bay Foundation will partner with the Keith Campbell Foundation for the Environment to produce a series of reports and conduct outreach activities on stormwater pollution abatement and enhancing the capacity of local watershed groups to advance stormwater management policies and actions. The objectives of the Initiative are to: 1) determine the extent of existing stormwater policies and the solutions available to jurisdictions in the Anacostia River watershed; 2) determine the applicability of these policies to other Chesapeake Bay watersheds; and 3) enable watershed organizations and local governments to establish stormwater policies and programs to meet state and federal stormwater control requirements.

Octoraro Creek Wetland Restoration

Ducks Unlimited, Inc.

Lancaster County, PA

Small Watershed Grant: \$40,000

Partner Contributions: \$102,500

Ducks Unlimited, Inc., will restore 30 acres of wetlands and 4 miles of riparian habitat on at least 8 priority properties within the Octoraro Creek watershed of Lancaster County, Pennsylvania. The restored sites will provide habitat for native fishes, waterfowl, and migratory

songbirds. Ducks Unlimited will work with Lancaster County Conservation District and the Octoraro Watershed Association in educating Amish landowners on the multiple benefits of farm best management practices and conservation opportunities.

Acid Mine Reclamation Outreach

Eastern Pennsylvania Coalition for Abandoned Mine Reclamation

Coal mining region of Eastern Pennsylvania

Small Watershed Grant: \$40,000

Partner Contributions: \$61,700

The Eastern Pennsylvania Coalition for Abandoned Mine Reclamation will conduct a series of 40 two-hour workshops for local municipalities throughout eastern Pennsylvania to educate municipal staff about water quality problems associated with acid mine drainage. Technical assistance and computerized maps and databases will be provided to participating municipalities to help them begin the process of remediation.

Highland Elementary School Wetland Project

Highland Elementary School

Ephrata, PA

Small Watershed Grant: \$5,000

Partner Contributions: \$2,000

The Highland Elementary School will promote water quality stewardship among students and their families through hands-on exploration, demonstrations and activities at two local wetlands. One of the wetlands lacks adequate vegetation so the students will plant native plants to increase the filtering capacity of the wetland. The students will monitor the changes in water quality and compare the data to another local, functioning wetland. Project partners include Borough of Ephrata, Save Our Creek Foundation and the Lebanon County Conservation District.

Susquehanna Watershed Leadership Initiative-III

Izaak Walton League of America

Susquehanna Watershed, PA, MD

Small Watershed Grant: \$ 50,000

Partner Contributions: \$265,000

The Izaak Walton League of America (IWLA) will continue to build the capacity of communities within the Susquehanna River Basin to conduct watershed restoration and stewardship activities by conducting five workshops and providing follow-up technical assistance. IWLA will also partner with over 100 Amish farmers in Lancaster County, Pennsylvania to educate and train them in farm best management practices. Community members and farmers will complete restoration projects including fencing livestock from 50,000 ft. of stream and restoring/enhancing 6 miles of riparian buffer. Project partners include multiple foundations, Pennsylvania Watershed Organization for Watersheds and Rivers, Upper Susquehanna Coalition and the U.S. Fish and Wildlife Service.

Fishing Creek Watershed Assessment

Lancaster County Conservancy

Drumore Township, Lancaster County, PA

Small Watershed Grant: \$40,000

Partner Contributions: \$79,300

The Lancaster County Conservancy will prepare a detailed ecological and recreational assessment of the Fishing Creek watershed in Drumore Township, Lancaster County, Pennsylvania. The assessment will include plans for habitat restoration, recreation,

land conservation, and education efforts. Project partners include Drumore Township, Providence Township, Trout Unlimited, Pennsylvania Department of Conservation and Natural Resources, Pennsylvania Senior Environmental Corps, Pennsylvania Game Commission, Pennsylvania Fish and Boat Commission, Valley Lea Riding Club, and Chesapeake Bay Foundation.

Marina Outreach and Education

Marina Operators Association of America

Lake Anna, VA; location TBD in Pennsylvania and Maryland

Small Watershed Grant: \$20,000

Partner Contributions: \$50,755

The Marina Operators Association of America will conduct outreach workshops to enhance the boating community's understanding of boating waste disposal and the impacts of aquatic invasive species on recreational waters in the Chesapeake Bay watershed. Two workshops will be conducted and will host a total of 150 leaders in the boating industry including those recruited from 20 local marinas. Project partners will include Clean Marina Initiatives, Marina Technical and Environmental Advisory Committee, Pennsylvania Fish and Boat Commission, and State Organization for Boating Access.

Octoraro Streambank Improvement

Octoraro Watershed Association

Lancaster County, PA

Small Watershed Grant: \$40,000

Partner Contributions: \$175,000

The Octoraro Watershed Association will work with local Amish farmers and other private landowners to protect up to 30 acres of wetlands and restore 20,000 linear feet of riparian buffer habitat. It is anticipated that 8-12 individual landowners will participate in this voluntary restoration effort. Project partners include Ducks Unlimited, Inc., Lancaster County Conservation District, Chester County Conservation District, and the Chester Water Authority.

Paxton Creek Stormwater Retrofits

Paxton Creek Watershed and Education Association

Harrisburg, PA

Small Watershed Grant: \$48,000

Partner Contributions: \$80,400

The Paxton Creek Watershed and Education Association will install a rain garden and two bioretention facilities to demonstrate innovative technologies for stormwater management. These sites will be located at an elementary school, a community center, and a community college. Explanatory signs will be posted at the project sites and education and outreach programs will be conducted to inform local citizens of the best management practices. Project partners include Lower Paxton Township, Central Dauphin School District, Harrisburg Area Community College, and the Center for Watershed Protection.

Cedar Run Watershed Conservation

Pennsylvania Environmental Council

Cumberland County, PA

Small Watershed Grant: \$40,000

Partner Contributions: \$88,900

The Pennsylvania Environmental Council will undertake a series of conservation activities designed to improve water quality and enhance stormwater management in the Cedar Run watershed, an important tributary of Yellow Breeches Creek near Harrisburg, Pennsylvania. Specific actions will include stream corridor restoration, riparian buffer plantings and wetland restoration. Project partners include the Alliance for the Chesapeake Bay, Cumberland Valley Trout Unlimited, and the Yellow Breeches Watershed Association.

Northeast Pennsylvania Pasture Planner

Pocono Northeast Resource Conservation and Development Council, Inc.

Bradford, Columbia, Lackawanna, Luzerne, Lycoming, Montour, Northumberland, Pike, Sullivan, Susquehanna, Tioga, Wayne, and Wyoming counties, Northeast Pennsylvania

Small Watershed Grant: \$5,000

Partner Contributions: \$10,500

The Northeast Resource Conservation and Development Council will produce and distribute 2,500 copies of a "pasture planning calendar," which highlights the wide array of agricultural best management practices that could be implemented by farmers in northeastern Pennsylvania. The calendar will also include information and contact information for funding opportunities that exist to help farmers implement these best management practices on their property. Project partner is the Penn State Cooperative Extension.

Comprehensive Growing Native Curriculum Development

Potomac Watershed Partnership

Focus on Potomac Watershed

Small Watershed Grant: \$30,000

Partner Contributions: \$17,500

The Potomac Watershed Partnership will collect the curriculum developed by teachers utilizing "Growing Native," a watershed-wide native hardwood seed collection effort to support reforestation of riparian buffers and urban greenways, and develop a standardized curriculum and teachers guide for distribution throughout the entire Chesapeake Bay watershed. A series of workshops will be held to familiarize teachers with the program and encourage hands-on educational opportunities for students. Project partners will include MD Department of Natural Resources, VA Department of Forestry, PA Department of Environmental Protection, local schools, Community Commons, Alliance for the Chesapeake Bay, James Madison University, Interstate Commission for the Potomac River Basin, Ducks Unlimited and the George Washington Jefferson National Forest.

Quittapahilla Educational Wetland Preserve

Quittapahilla Educational Wetland Preserve

Lebanon, PA

Small Watershed Grant: \$5,500

Partner Contributions: \$4,250

The Quittapahilla Educational Wetland Preserve will develop an outdoor education site at the headwaters of the Quittapahilla Creek to be used by all of the schools in Lebanon County and the surrounding area. Interpretative signs will be installed at 6-8 locations explaining the benefits of wetlands for the plants and animals that utilize wetlands, the local community and the entire watershed. A series of workshops will be offered to K-12 teachers to inform them of this outdoor educational facility and to share environmental education lesson plans. School field-trips to the sites will be initiated during the project period. Partners will include Pansy Hill Nursery, Wal-Mart, Cornwall-Lebanon Soil Conservation District and the Lebanon School District.

Loop Run Abandoned Mine Reclamation

Rocky Mountain Elk Foundation

Clinton County, PA

Small Watershed Grant: \$29,000

Partner Contributions: \$13,735

The Rocky Mountain Elk Foundation will develop a plan to remediate two sources of acid mine drainage on state game lands in Clinton County, Pennsylvania. A detailed design will be prepared for a passive treatment system employing limestone and compost to reduce acidity and absorb metal ions. Project partners include the Pennsylvania Game Commission.

Corey Creek Stream Restoration

Sullivan Township

Tioga County, PA

Small Watershed Grant: \$50,000

Partner Contributions: \$132,000

Sullivan Township, in partnership with the Corey Creek Watershed Association, will restore 1,500 feet of stream channel in the Corey Creek watershed using natural stream channel design techniques and native riparian plantings. This restoration project will improve habitat for fish within the creek and also reduce soil erosion along the creek bank. Technical support will be provided by the Tioga County Conservation District and the Pennsylvania Department of Environmental Protection.

Prettyboy Watershed Outreach and Education

Trust for Public Land

Carroll County and Baltimore County, MD and York County, PA

Small Watershed Grant: \$30,100

Partner Contributions: \$114,100

The Trust for Public Land will educate Prettyboy watershed residents on the watershed and engage them in stewardship opportunities. The Trust for Public Land and the Prettyboy Watershed Alliance staff, will conduct at least 16 public presentations to a variety of locally based citizen groups, organize a Spring Watershed Celebration to educate at least 600 residents

on general watershed concepts, conduct three restoration/stewardship workshops to train at least 60 community leaders and organize four riparian buffer plantings. Project partners include Genesee Valley Outdoor Learning Center, Alliance for the Chesapeake Bay, Bear Branch Nature Center and the Gunpowder Valley Conservancy.

Iron Stone Mine Dam Removal

The Principal and Trustees of Emaus

Orphan House

Dauphin County, PA

Small Watershed Grant: \$25,000

Partner Contributions: \$35,000

The Pennsylvania Fish and Boat Commission will remove Iron Stone Mine Dam on Swatara Creek, a tributary of the Susquehanna River. The dam currently serves no functional purpose and is in an advanced state of disrepair. Removing the dam will open up 42.1 miles of stream to migratory fish, including American shad, blueback herring, alewife, and hickory shad. Project partners include the George Frey Trust, Middletown Borough, U. S. Environmental Protection Agency, Pennsylvania Department of Environmental Protection, and American Rivers.

Susquehanna and Potomac Ecological Inventory

Western Pennsylvania Conservancy

Fulton and Blair Counties, PA

Small Watershed Grant: \$37,000

Partner Contributions: \$140,290

The Western Pennsylvania Conservancy will inventory biological resources in portions of Fulton and Blair Counties, Pennsylvania. This information will be provided to county and municipal governments for use in local land use planning and watershed conservation efforts. Project partners include the Pennsylvania Department of Conservation and Natural Resources, Pennsylvania Natural Diversity Inventory, and Fulton County Conservation District.

Virginia

BayScaping at Corporate and Public Facilities

Alliance for the Chesapeake Bay

Richmond, VA

Small Watershed Grant: \$30,000

Partner Contributions: \$36,600

The Alliance for the Chesapeake Bay will expand its current BayScaping program to target small businesses, corporations, Parks and Recreation staff, municipalities and watershed organizations to incorporate conservation landscaping techniques and low impact development principals into larger parcels of public and private green space. A comprehensive conservation landscaping training manual will be created and used in a training workshop. Project partners will include Dominion Virginia Power, the City of Richmond, the James River Park System, Virginia Department of Conservation and Recreation, Richmond Riverfront Corporation and the Chesapeake Conservation Landscaping Council.

Woods Creek Riparian Restoration

Boxerwood Education Association

Rockbridge, VA

Small Watershed Grant: \$20,000
Partner Contributions: \$37,400

The Boxerwood Education Association will restore the Woods Creek streambank and its riparian buffer during Woods Creek Restoration Day and its accompanying activities. At least 6,000 plants, shrubs and trees will be planted and/or maintained in the 5.2 acres of the Woods Creek riparian zone. At least 4 permanent hands-on learning stations will be established in community accessible locations. Project partners will include the Rockbridge Area Conservation Council and the City of Lexington.

Stormwater Abatement Initiative

Chesapeake Bay Foundation

Watershed Wide, focus on Anacostia River watershed

Small Watershed Grant: \$50,000
Partner Contributions: \$53,180

The Chesapeake Bay Foundation will partner with the Keith Campbell Foundation for the Environment to produce a series of reports and conduct outreach activities on stormwater pollution abatement and enhancing the capacity of local watershed groups to advance stormwater management policies and actions. The objectives of the Initiative are to: 1) determine the extent of existing stormwater policies and the solutions available to jurisdictions in the Anacostia River watershed; 2) determine the applicability of these policies to other Chesapeake Bay watersheds; and 3) enable watershed organizations and local governments to establish stormwater policies and programs to meet state and federal stormwater control requirements.

Westmoreland Oyster Heritage Program

Cople Elementary School Problems Solvers

Westmoreland County, VA

Small Watershed Grant: \$10,000
Partner Contributions: \$13,000

The Cople Elementary School Problems Solvers will construct a ¼ acre three-dimensional oyster reef sanctuary along with a harvest area as part of a Westmoreland County Oyster Heritage Program to improve juvenile oyster survival, allow oysters to grow faster and physically position oysters in the most optimal configuration for spawning success. Project partners will include the Virginia Marine Resources Commission, Bevans Oyster Company, Port Kinsale Foundation and Girl Scout Troop 368.

Woods Creek Watershed Management Plan

City of Lexington

Rockbridge, VA

Small Watershed Grant: \$30,000
Partner Contributions: \$21,775

The City of Lexington will create an updated watershed management plan for the Woods Creek watershed to provide direction and guidance for continued community efforts to protect and enhance the watershed. An estimated 20 to 40 volunteers will conduct field evaluations on the current condition of the watershed. The updated plan will identify wetlands, riparian forest areas and stream corridors in need remediation. Project partners will include Rockbridge County and Boxerwood Gardens.

Installation and Monitoring of Bioretention Systems

City of Suffolk Public Works

Suffolk, VA

Small Watershed Grant: \$35,000
Partner Contributions: \$22,890

The City of Suffolk Public Works will utilize new bio-filtration technology (Filterra©) in a densely developed urban environment in an effort to provide supplemental water quality treatment for the Fairgrounds. Seven Filterra units will be installed to provide additional pollutant removal from the stormwater being discharged from the highly developed area. The testing of this product in a real environment will measure removal efficiencies of total suspended solids, total phosphorous and total nitrogen which will be compared to laboratory data.

Paradise Creek Watershed Plan Implementation

The Elizabeth River Project

Elizabeth River Watershed

Small Watershed Grant: \$50,000
Partner Contributions: \$310,762

The Elizabeth River Project will remove toxic hotspot(s) within the sediments, create an “eco park” and clean-up a brownfield in Paradise Creek. Additionally, 5 to 7 acres of riparian forest buffer and stream corridor will be restored. Project partners will include U.S. EPA Region III, NOAA Restoration Center, Naval Station Norfolk, Norfolk Naval Shipyard, U.S. Army Corps of Engineers-Norfolk District, VA Department of Conservation and Recreation, VA Department of Game and Inland Fisheries, Virginia Marine Resources Commission, Virginia Institute for Marine Science, the City of Portsmouth, Cradock Civic League, Cradock Preservation and Revitalization Committee, Peck Land, Giant Cement and RADVA.

River Star Facility Restoration

The Elizabeth River Project

Elizabeth River Watershed

Small Watershed Grant: \$30,000
Partner Contributions: \$39,421

The Elizabeth River Project will motivate “River Star” industrial facilities to achieve voluntary pollution prevention and coastal habitat gains along the river’s Southern Branch. Participating industries will document the conservation and restoration of a minimum of 25 acres of urban wildlife habitat, consisting of riparian buffers, urban forests, oyster reefs, wetlands and wildflower meadows. Also, industrial “River Stars” will document the prevention or reduction of a minimum of 250,000 pounds of hazardous materials from point sources, non-point sources and waste reduction.

Water Resource Management Program

Fauquier County

Fauquier County, VA

Small Watershed Grant: \$35,000
Partner Contributions: \$70,000

Fauquier County will establish a county-wide water resource management plan and create an electronic database of over 40,000 well permits issued by the Department of Health, thereby giving the County a deeper understanding of its existing water resources as well as a set of goals necessary to achieve and maintain water

quality for the County and the watersheds of the Chesapeake Bay. Project partners will include VA Department of Health, Chesapeake Bay Local Assistance Department, the Water Resource Management Advisory Committee and the Water Resource Management Work Group.

Forest Lakes Watershed Improvement

Forest Lakes Property Owners Association

Bedford County, VA

Small Watershed Grant: \$25,000
Partner Contributions: \$252,170

The Forest Lakes Property Owners Association will improve water quality by reducing turbidity and increasing oxygen capacity by removing accumulated sediments. Harmful chemical fertilizer usage will be reduced by providing educational material, meetings and forums for landowners of adjacent properties of immediate, or potential, impact to the Forest Lake area of the local watershed. Project partners will include U.S. Army Corps of Engineers, Virginia Department of Conservation and Recreation, Virginia Department of Environmental Quality, Virginia Department of Game and Inland Fisheries, Bedford County Department of Natural Resources and Peaks of Otter Soil & Water Conservation District.

Spanish Community Watershed Education

Friends of the Occoquan

Prince William and Fairfax Counties, VA

Small Watershed Grant: \$25,000
Partner Contributions: \$11,000

The Friends of the Occoquan will engage the Spanish speaking community of Northern Virginia to become stakeholders of their watershed and participate in maintaining clean and safe rivers. Ten Spanish language signs will be placed throughout the Occoquan and Four Mile Run watersheds and watershed literature will be translated and distributed to the Spanish community. A bilingual watershed educational video will be produced and presented to schools, community groups and aired on TV stations. Project partners will include the Northern Virginia Park Authority, Northern Virginia Regional Commission, Arlington County, Prince William Park Authority, Town of Occoquan, Arlingtonians for a Clean Environment and the Occoquan Watershed Coalition.

Pamunkey Farm Cooperative Venture

Hanover-Caroline Soil and Water Conservation District

Hanover County, VA

Small Watershed Grant: \$68,600
Partner Contributions: \$99,000

The Hanover-Caroline Soil and Water Conservation District will design and implement a comprehensive grazing management and wetland and riparian restoration plan for an 1,800 acre, active ranching operation to improve water quality in the Pamunkey River. Ten acres of nontidal wetlands will be restored and over 7 miles of stream will be protected. Project partners include Virginia Department of Corrections, Chesapeake Bay Foundation, Virginia Polytechnic Institute and State University, Virginia Department of Game and Inland Fisheries and the U.S. Fish and Wildlife Service.

Williamsburg/James City County Courthouse Bioretention Basin

James City County Environmental Division

New Town, James City County, VA

Small Watershed Grant: \$25,000
Partner Contributions: \$55,000

The James City County Environmental Division will retrofit an existing landscaped area at the Williamsburg/James City Courthouse complex into a demonstration site for stormwater management. A bioretention basin will be installed to filter runoff from approximately 2.5 acres. A workshop will be held on the planning, design, construction and maintenance of bioretention facilities as a low-impact development technique for local developers.

James River Analysis and Subwatershed Action Plan

James River Association

James River Watershed

Small Watershed Grant: \$50,000
Partner Contributions: \$113,000

The James River Association will evaluate existing information and identify priority watersheds for protection within the James River Basin. One priority watershed will be chosen for further assessment and planning. A watershed action plan will be created for three subwatersheds that will identify current stream corridor and upland conditions, as well as prioritize restoration and protection activities. Project partners will include the Center for Watershed Protection.

Lake Anna Water Quality Monitoring Enhancement

Lake Anna Civic Association

Louisa, Orange and Spotsylvania Counties, VA

Small Watershed Grant: \$12,300
Partner Contributions: \$25,400

The Lake Anna Civic Association will purchase instrumentation to improve an established water quality monitoring program in Lake Anna. Volunteers will be able to monitor water quality more quickly, more precisely and more extensively using instruments similar to those used by the Virginia Department of Environmental Quality (DEQ). The data may enable DEQ to remove a tributary from the 303(d) list and not have to develop Total Maximum Daily Loads. Project partners will include the Virginia Department of Environmental Quality.

Lynnhaven Watershed Education

Lynnhaven River 2007

Virginia Beach County, VA

Small Watershed Grant: \$30,000
Partner Contributions: \$20,000

The Lynnhaven River 2007 will develop and implement a comprehensive community education program to improve water quality in the Lynnhaven River. The student oyster restoration program will expand to reach 15 schools within the watershed and the citizen oyster gardening network will expand by 100 families. Forty landowners will be involved in land use and water quality workshops. Project partners include Oyster Reef Keepers of Virginia, Virginia Beach School System, Virginia Marine Resources Commission, City of Virginia Beach and Chesapeake Bay Foundation.

Marina Outreach and Education

Marina Operators Association of America

Lake Anna, VA; location TBD in Pennsylvania and Maryland

Small Watershed Grant: \$20,000

Partner Contributions: \$50,755

The Marina Operators Association of America will conduct outreach workshops to enhance the boating community's understanding of boating waste disposal and the impacts of aquatic invasive species on recreational waters in the Chesapeake Bay watershed. Two workshops will be conducted and will host a total of 150 leaders in the boating industry including those recruited from 20 local marinas. Project partners will include Clean Marina Initiatives, Marina Technical and Environmental Advisory Committee, Pennsylvania Fish and Boat Commission, and State Organization for Boating Access.

Loudoun County Baseline Biological Monitoring Survey

Metropolitan Washington Council of Governments

Loudoun County, VA

Small Watershed Grant: \$37,500

Partner Contributions: \$48,500

The Metropolitan Washington Council of Governments will complete the Baseline Monitoring Survey Report for Loudoun County. Study findings and recommendations will be prepared and disseminated to a broad audience consisting of County decision-makers, government agency representatives, environmental groups and the public. A one-day riparian forestation training and stewardship event will be held to increase the public's knowledge of its local streams and the need for greater environmental stewardship. Project partners will include USDA Natural Resource Conservation Service, Virginia Department of Forestry, Virginia Department of Environmental Quality and the Loudoun Soil and Water Conservation District.

Riparian Buffer Education

Monacan Soil and Water Conservation District

Goochland and Powhatan Counties, VA

Small Watershed Grant: \$25,000

Partner Contributions: \$46,400

The Monacan Soil and Water Conservation District will establish a riparian buffer signage program for intermittent and perennial streams, establish ordinances to improve the existing buffer programs and conduct educational programs to include four different locally developed brochures for varying land use groups. Project partners will include the Natural Resources Conservation Service, Department of Conservation-Division Soil and Water Conservation and Virginia Cooperative Extension.

Erosion and Sediment Control Training

Northern Virginia Regional Commission

Fairfax County, VA

Small Watershed Grant: \$13,300

Partner Contributions: \$14,443

The Northern Virginia Regional Commission will educate and involve the public in watershed issues through a regional workshop, handbook, collateral materials and post-workshop technical assistance. Through the workshop, 75 to 100 individuals and

leaders of community stewardship organizations will be trained to identify and report erosion and sediment control problems during land-disturbing activities. Project partners will include the Northern Virginia Soil and Water Conservation District, Fairfax County, the Potomac River Greenways Coalition and the Virginia Department of Conservation and Recreation.

Page County Animal Shelter Rain Garden Demonstration Project

Page County Tree Board

Page County, VA

Small Watershed Grant: \$10,000

Partner Contributions: \$3,900

The Page County Tree Board will install two rain gardens to catch and treat the storm water run-off from the new Animal Shelter that Page County is constructing and will plant energy conserving shade trees around the garden. In addition, a Rain Garden Symposium will be held at the Page Technical Center to teach 40 local citizens, contractors and county officials about using rain gardens as a landscape tool for protecting water quality and how to install them. Project partners will include Virginia Department of Forestry and the Page Technical Center.

Septic System Maintenance, Education and Pump-out

Peter Francisco Soil and Water Conservation District

Buckingham and Cumberland Counties, VA

Small Watershed Grant: \$15,000

Partner Contributions: \$17,000

The Peter Francisco Soil and Water Conservation District will encourage voluntary compliance by residents to reduce non-point source pollution from septic systems through identification, maintenance and education. A fact sheet/brochure will be developed on proper septic tank maintenance. Two informational and educational meetings on proper septic system maintenance will be conducted. Project partners will include the local Health Department, Natural Resources Conservation Service and Virginia Cooperative Extension.

Conservation of Resources and Watershed Protection in Madison County

Piedmont Environmental Council

Madison County, VA

Small Watershed Grant: \$30,000

Partner Contributions: \$20,000

The Piedmont Environmental Council will protect and restore riparian and other critical lands to improve wildlife habitat and water quality in Madison County's portion of the Rappahannock watershed using direct landowner outreach and community education. A part-time conservation officer position dedicated to landowner education in Madison County will be established. Project partners will include Virginia Outdoors Foundation, Virginia Department of Conservation and Recreation and The Blue Ridge Foothills Conservancy.

Agricultural Education and Restoration in the Shenandoah Valley

Potomac Conservancy

Frederick, Clarke, Warren and Shenandoah Counties, VA

Small Watershed Grant: \$30,000
Partner Contributions: \$146,400

The Potomac Conservancy will promote healthy farm practices, enhance farm sustainability, improve water quality and reduce further fragmentation of farms in the northern Shenandoah Valley with a central focus on the Cedar Creek and Smith Creek watersheds. As a result of the targeted outreach, up to 400 acres of critical farmland will be protected and up to 4 miles of streamside land will be restored. Project partners will include Potomac Watershed Partnership, Blandy Experimental Farm, Blue Ridge Center for Environmental Stewardship, Canaan Valley Institute, Friends of the Shenandoah River, Future Harvest/CASA, George Washington and Jefferson National Forests, USDA Natural Resource Conservation Service, Piedmont Environmental Council, Rodale Institute, Shenandoah Pure Water 2000, Shenandoah University, Valley Conservation Council, VA Department of Conservation and Recreation, VA Department of Forestry, VA Department of Game and Inland Fisheries and VA Outdoors Foundation.

Comprehensive Growing Native Curriculum Development

Potomac Watershed Partnership (Potomac Conservancy)

Focus on Potomac Watershed

Small Watershed Grant: \$30,000
Partner Contributions: \$17,500

The Potomac Watershed Partnership will collect the curriculum developed by teachers utilizing "Growing Native," a watershed-wide native hardwood seed collection effort to support reforestation of riparian buffers and urban greenways, and develop a standardized curriculum and teachers guide for distribution throughout the entire Chesapeake Bay watershed. A series of workshops will be held to familiarize teachers with the program and encourage hands-on educational opportunities for students. Project partners will include MD Department of Natural Resources, VA Department of Forestry, PA Department of Environmental Protection, local schools, Community Commons, Alliance for the Chesapeake Bay, James Madison University, Interstate Commission for the Potomac River Basin, Ducks Unlimited and the George Washington Jefferson National Forest.

Shenandoah Watershed Tree Planting and Education Initiative

Potomac Watershed Partnership (Potomac Conservancy)

Shenandoah and Potomac Watersheds

Small Watershed Grant: \$24,250
Partner Contributions: \$48,500

The Potomac Watershed Partnership will implement a "Plant-a-Seed" program to introduce urban and/or at-risk middle school-aged children to a hands-on experience with the natural environment, the watershed process and the importance of our public land resources. The program will consist of at least 8 field trips for approximately 400 sixth grade students to project locations in the Shenandoah River watershed. Project partners will include the George Washington and Jefferson National Forests, James Madison University, Virginia Department of Forestry, Thomas Harrison Middle School, the House of Ruth and the Canaan Valley Institute.

Harrisonburg Dam Removal from the South Fork of the Shenandoah River

Shenandoah Valley Pure Water 2000 Forum

Rockingham County, VA

Small Watershed Grant: \$25,000
Partner Contributions: \$120,000

The Shenandoah Valley Pure Water 2000 Forum will remove the 400-foot-wide McGaheysville hydroelectric dam located on the South Fork of the Shenandoah River and restore approximately 2,000 linear feet of the upstream impoundment to its free flowing natural state. The removal will improve water quality and fish passage and will provide a healthier habitat for other aquatic resources. Project partners will include the City of Harrisonburg, the Virginia Department of Game and Inland Fisheries, American Rivers, James Madison University and the U.S. Fish and Wildlife Service's Chesapeake Bay Program.

Smith Creek Watershed Septic System Education

Smith Creek Citizens Watershed Committee

Shenandoah and Rockingham Counties, VA

Small Watershed Grant: \$32,700
Partner Contributions: \$29,100

The Smith Creek Citizens Watershed Committee will reduce human fecal coliform in Smith Creek by providing 60 property owners with educational and technical assistance, including 60 septic system pump-outs and 10 repairs and/or replacements to rehabilitate failed systems. Educational outreach programs on septic system maintenance will be provided to 60 additional property owners. Project partners will include Tenth Legion Rurians, Virginia Departments of Conservation and Recreation/Environmental Quality/Health, Tetra Tech, Map Tech, James Madison University, Shenandoah Valley and Lord Fairfax Health Districts, Northern Shenandoah Valley and Shenandoah Planning Commissions, Friends of the North Fork, Shenandoah Valley Pure Water 2000 and Southeast RCAP.

Runnymede Park Nature Center Green Roof

Town of Herndon

Fairfax County, VA

Small Watershed Grant: \$25,000
Partner Contributions: \$630,000

The Town of Herndon will incorporate a Green Roof system on a Nature Center being developed in Runnymede Park, a 58-acre natural area, to demonstrate a low impact development technique with multiple benefits. The Green Roof will encourage the public, by example, to use sustainable practices and will be used as a tool to provide watershed education to the public. Project partners will include the Department of Public Works, the Department of Community Development, the Department of Parks and Recreation, the Friends of Runnymede Park, Herndon High School Students Against Global Abuse, the Young Naturalists Club and various scout and other school groups.

Hawksbill Creek Trout Fishery Restoration

Town of Luray

Page County, VA

Small Watershed Grant: \$20,000
Partner Contributions: \$20,000

The Town of Luray will restore the trout fishery in a 0.5 mile section of Hawksbill Creek through the construction of a series of in-stream structures to enhance the riffle-pool complex and riparian plantings to help lower water temperatures. Approximately 75 volunteers will assist with the streambank stabilization including site preparation, shrub and tree planting, and coil fiber log placement. Project partners will include Trout Unlimited, Virginia Department of Game and Inland Fisheries and Virginia Department of Forestry.

Water Quality Monitoring Training for Use in Watershed Planning

Virginia Save Our Streams

Shenandoah Watershed

Small Watershed Grant: \$7,500
Partner Contributions: \$5,100

Virginia Save Our Streams will conduct one basin-wide workshop for 100 people from local government, soil and water conservation districts and grassroots organizations that will introduce the concept of watershed management planning and its context in Virginia's water quality management programs. A total of 70 people from a diverse audience will be trained during 7 field water quality monitoring training sessions. Project partners will include Canaan Valley Institute, River Network and the Shenandoah Pure Water 2000 Forum.

Coastal Virginia Tree Planting Initiative

Virginia 4-H Foundation

Accomack, Gloucester, Middlesex, Northumberland, Isle of Wight, and York Counties, VA

Small Watershed Grant: \$29,000
Partner Contributions: \$39,800

The Virginia 4-H Foundation will preserve, protect and restore vital habitat by planting trees in targeted coastal Virginia subwatersheds currently lacking vegetative cover and in urban and community areas with less than 40% tree cover. Youth, their parents and teachers will plant 40,000 native hardwood seedlings and learn about seedling care and planting and the importance of forest cover

to water quality. Project partners will include Virginia's Soil and Water Conservation Districts, Virginia Department of Forestry, Master Gardeners, and 4-H Extension Agents and Agriculture Natural Resource Agents in at least 13 counties.

West Virginia

Working Forest Conservation Initiative

Cacapon and Lost Rivers Land Trust, Inc.

Hardy, Hampshire and Morgan Counties, WV

Small Watershed Grant: \$100,000
Partner Contributions: \$64,000

The Cacapon and Lost Rivers Land Trust, Inc. will conduct a targeted working forest conservation campaign and will initiate a community outreach effort that builds support for watershed management planning in the Cacapon and Lost River watershed. One thousand acres will be added to the Hampshire County working forest conservation hub and 500 acres will be added to each of the Hardy and Morgan County working forest conservation hubs. Project partners will include Potomac Conservancy, Friends of the Potomac Farmland Protection Boards, Trust for Public Land, The Nature Conservancy, National Park Service, County Governments and The Conservation Fund.

Potomac Watershed Trading Programs

Friends of the Potomac

Hardy, Hampshire and Morgan Counties, WV

Small Watershed Grant: \$34,000
Partner Contributions: \$9,800

The Friends of the Potomac will encourage the use of voluntary, market-based mechanisms to protect and preserve water quality and natural resource lands. Market assessment and facilitation support will be provided for opening a compost facility and a poultry digester facility by 2005 to reduce poultry litter land applications in the Potomac Headwaters. A Potomac Trading Network dedicated to the development and implementation of trading programs and other market-based strategies will be established for achieving healthy sustainable ecosystems. Project partners will include Maryland DNR Power Plant Research Program, the Rural Community Assistance Program, the Environmental Finance Center and the West Virginia Department of Environmental Protection.

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.