



Chesapeake Bay Stewardship Fund

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- Chesapeake Bay Program

To learn more, visit:

<https://bit.ly/chesapeakebizplan>

ABOUT NFWF

Chartered by Congress in 1984, the National Fish and Wildlife Foundation (NFWF) protects and restores the nation's fish, wildlife, plants and habitats. Working with federal, corporate and individual partners, NFWF has funded more than 5,000 organizations and generated a total conservation impact of \$6.1 billion.

Learn more at www.nfwf.org

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Canvasbacks over the Chesapeake Bay

OVERVIEW

The National Fish and Wildlife Foundation (NFWF), in partnership with the U.S. Environmental Protection Agency and the Chesapeake Bay Program, recently announced the 2020 round of funding for Chesapeake Bay Stewardship Fund projects. Fifty-six restoration and water quality improvement grants totaling \$18.06 million were awarded, leveraging \$18.9 million in match from the grantees to generate a total conservation impact of \$36.97 million.

The Chesapeake Bay Stewardship Fund is dedicated to protecting and restoring the bay by helping local communities clean up and restore their polluted rivers and streams. The fund also advances cost-effective and creative solutions with financial and technical assistance to local communities, farmers, and private landowners. NFWF manages the Stewardship Fund in partnership with government agencies and private corporations and in close coordination with the federal-state Chesapeake Bay Program partnership. Major funding is provided by the U.S. Environmental Protection Agency through the Chesapeake Bay Program Office.

Since 1999, the Stewardship Fund has worked with the public and private sectors to deliver on-the-ground conservation successes benefiting the communities, farms, habitats, and wildlife of the Chesapeake Bay region. NFWF administers the fund's two competitive grant programs, the Innovative Nutrient and Sediment Reduction Grant Program and the Small Watershed Grants Program. NFWF also makes targeted investments that support networking and information-sharing among restoration partners on emerging technologies, successful restoration approaches, and new partnership opportunities. These programs directly engage agricultural producers, homeowners, churches, businesses and others in on-the-ground restoration actions that improve the quality of life in communities throughout the watershed, while ultimately improving the health of the Chesapeake Bay.

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INNOVATIVE NUTRIENT AND SEDIMENT REDUCTION GRANTS **Accelerating Riparian Forest Buffer Implementation in** **Priority Pennsylvania Counties**

Grantee: Chesapeake Bay Foundation

Grant Amount: \$975,926
 Matching Funds: \$977,882
 Total Project: \$1,953,809

Build relationships between private and public partners of conservation districts in Pennsylvania's Final Phase 3 Watershed Implementation Plan to accelerate implementation, maintenance resources, and innovative financial incentives of riparian forested buffers in Pennsylvania. Project will provide technical assistance to local contractors and implement 360 acres of buffers, resulting in an annual load reduction of 42,071 pounds nitrogen, 635 pounds phosphorus, and 1,656,578 pounds of sediment.

Planting the Trees for the Future Initiative (MD)

Grantee: Howard County, Maryland

Grant Amount: \$999,202
 Matching Funds: \$1,315,670
 Total Project: \$2,314,872

Expand local collaborations on environmental restoration, the rate and scale of reforestation and other natural filters, strategic land conservation, and environmental job opportunities in Central Maryland. Project will triple the average annual number of trees planted across the pilot area by the end of the three-year period, with a target rate of 100,000 trees per year across the Greater Baltimore Wilderness Coalition territory including Howard County, Baltimore County, and Baltimore City.

Accelerating Sediment Reductions Through Collaborative Technical Assistance in Virginia Headwaters

Grantee: Trout Unlimited

Grant Amount: \$949,142
 Matching Funds: \$1,010,485
 Total Project: \$1,959,627

Expand technical assistance capacity among the collaborative partners in the headwaters of the Chesapeake Bay in Virginia to improve water quality and habitat for native eastern brook trout. Project will install 15 miles of exclusion fencing, establish 80 acres of new riparian forest buffer, exclude livestock from and protect 151 acres, and restore and stabilize 14 miles of streambanks and 1.5 miles of eroding streambanks.

Strengthening the Conservation Community Foundation in the Upper Susquehanna Watershed (NY, PA)

Grantee: Tioga County Soil and Water Conservation District of New York

Grant Amount: \$1,000,000
 Matching Funds: \$1,060,000
 Total Project: \$2,060,000

Focus on providing training to new and existing staff to further provide a framework for the Upper Susquehanna Coalition to evaluate available programs for future sustainability. Project will implement 114 acres of riparian buffer; 400 acres of



A great blue heron eats a shad in the James River, Virginia.

prescribed grazing, 3,800 acres of stream corridor restoration and 39 acres of wetland restoration that is estimated to generate nutrient reductions of 4,155 pounds of nitrogen, 689 pounds of phosphorus and 456,130 pounds of sediment annually.

Water Quality Improvements in the James River through a Living Shoreline Collaborative (VA)

Grantee: James River Association

Grant Amount: \$1,000,000
 Matching Funds: \$1,000,000
 Total Project: \$2,000,000

Combat erosion and adapt to changing shorelines through accelerated living shorelines implementation. Project will develop and deliver a living shoreline training program to increase technical capacity, formalize an existing partnership in the lower James River, increase the capacity of partners, and bring in partners from outside of the watershed to expand the network of knowledge to build on existing efforts.

Accelerating Implementation of Farmer Adoption of Nutrient Stewardship Practices (DE, MD, PA, VA)

Grantee: The Mid-Atlantic 4R Nutrient Stewardship Association

Grant Amount: \$990,000
 Matching Funds: \$1,084,000
 Total Project: \$2,074,000

Bring together stakeholders involved in nutrient management and those who have environmental concerns about excess nutrients to work together to develop locally relevant solutions. Project will identify barriers to nutrient

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management adoption, design a communications strategy, engage 300 farms to implement nutrient management, increase implementation of split application of nitrogen and pilot a model for a Pennsylvania Manure Transport Exchange.

Precision Conservation Partnership Implementing a Regional Restoration Plan in Central Pennsylvania

Grantee: Chesapeake Conservancy

Grant Amount: \$1,000,000

Matching Funds: \$1,118,147

Total Project: \$2,118,147

Implement a regional restoration plan in central Pennsylvania, build upon a Precision Conservation Partnership, and increase and strengthen local capacity and partnerships. Project will result in full-farm restoration on 25 farms, enhanced coordination of outreach and technical assistance, improved messaging to accelerate landowner recruitment, and knowledge transfer in the region, and prioritize restoration projects to rapidly de-list 46 miles of impaired streams.

SMALL WATERSHED GRANTS - IMPLEMENTATION

Implementing Green Stormwater Infrastructure in West Baltimore (MD)

Grantee: Blue Water Baltimore

Grant Amount: \$500,000

Matching Funds: \$499,649

Total Project: \$999,649

Implement green stormwater infrastructure projects and expand outreach and planning services to new target neighborhoods in West Baltimore to reduce nitrogen, phosphorus, and sediment pollution, develop regional scale partnerships, and increase citizen engagement. Project will expand, develop, and build upon previous success in East Baltimore to support neighborhoods in West Baltimore facing stormwater challenges in the Dead Run-Gwynns Falls watershed.

Expanding Tree Canopy in Charles County, Maryland

Grantee: Alliance for the Chesapeake Bay

Grant Amount: \$297,289

Matching Funds: \$250,000

Total Project: \$547,289

Improve local water quality and habitat in Charles County, Maryland. Project will create an Urban Tree Canopy Plan with local organizations and government agencies, train 40 Chesapeake Tree Stewards, expand the urban tree canopy by planting 75 native trees in the Town of La Plata, and reforest 55 acres of land with native trees throughout Charles County.

Increasing Wetland Habitat and Creating Tidal Salt Marshes to Support American Black Duck (MD)

Grantee: Harry R. Hughes Center for Agro-Ecology

Grant Amount: \$469,888

Matching Funds: \$161,874

Total Project: \$631,762

Evaluate native perennial grass species for their ability to establish viable stands along the margins of farm fields affected



Dairy farm in Pennsylvania

by saltwater intrusion and increase wetland habitat to support wintering American black duck. Project will create complete maps of areas in Somerset and Dorchester counties Maryland to identify priority areas at risk of saltwater intrusion and areas for tidal wetland habitat creation, and also implement wetland restoration projects on 32 acres of farmland.

Hopewell Stormwater Green Infrastructure (VA)

Grantee: City of Hopewell, Virginia

Grant Amount: \$500,000

Matching Funds: \$166,500

Total Project: \$666,500

Implement a stormwater green infrastructure project, including the stabilization of three storm drain outfall channels that convey stormwater down the highly erodible escarpment between the developed areas of the city and the James and Appomattox river floodplains. Project will provide a significant reduction in stormwater pollutant load to the Appomattox River, specifically two outfalls located in the Ashton Creek-Appomattox River Priority Subwatershed.

Accelerating Farm Stewardship Forested Buffers and Best Management Practices Implementation (PA)

Grantee: Stroud Water Research Center

Grant Amount: \$499,920

Matching Funds: \$802,381

Total Project: \$1,302,301

Build on Farm Stewardship Program success and add new emphases on implementing agricultural best management practices while bringing along much-needed forested buffers.

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Project will accelerate the rate of best management practices implementation, incentivize the inclusion of forested buffers that earn vouchers to pay for planning and implementation, and focus efforts in existing or emerging clusters of conservation so that research can help document the recovery of stream health.

Rappahannock-Rapidan Urban Green Stormwater Infrastructure Implementation (VA)

Grantee: Rappahannock-Rapidan Regional Commission
 Grant Amount:\$301,227
 Matching Funds:\$345,568
 Total Project:\$646,795

Install three urban stormwater green infrastructure projects at or adjacent to two schools in Fauquier County, and use to conduct outreach and education in the school district. Improve participation in the Virginia Conservation Assistance Program in Fauquier County by providing program outreach and cost-share matching funds for a minimum of five BMP projects, and develop a GIS-based prioritization to guide future implementation in the Rappahannock-Rapidan Region.

Healthy Streams Farm Stewardship: Chesapeake Loggerch Initiative (MD, PA)

Grantee: Alliance for the Chesapeake Bay
 Grant Amount:\$487,837
 Matching Funds:\$469,000
 Total Project:\$956,837

Develop and pilot a conservation incentive program that accelerates the adoption and establishment of riparian forest buffers by agricultural producers in the Susquehanna Basin of York County, Pennsylvania and Cecil and Harford counties in Maryland. Project will multiply the amount of implementation of agricultural best management practices, restore 160 acres of riparian forest habitat, and improve the in-stream habitat and passage specifically for the threatened Chesapeake loggerch.

Support for a Successful Transition to Rotational Grazing (PA)

Grantee: Capital Resource Conservation and Development Area Council
 Grant Amount:\$406,224
 Matching Funds:\$275,000
 Total Project:\$681,224

Support the transition of up to 1,000 acres of crop land and unmanaged pasture to a rotational grazing system, including cost-share for grazing infrastructure and technical assistance to ensure the successful implementation of the funded grazing projects. Project will complement work being conducted in the Chesapeake Bay Watershed to promote rotational grazing and soil health, including the Mountains to Bay Grazing Alliance and the Pennsylvania Soil Health Coalition.

Glenmont Forest Green Streets Water Quality Restoration (MD)

Grantee: Montgomery County Department of Environmental Protection
 Grant Amount:\$500,000
 Matching Funds:\$1,656,995
 Total Project:\$2,156,995

Construct a community-wide green street project in Silver Spring, Maryland with 67 rain gardens, bioretention gardens, and tree box filters to improve water quality. Project will work in collaboration with Rock Creek Conservancy, and the green infrastructure implemented will educate and engage the community while reducing 133 pounds of nitrogen, 20 pounds of phosphorous, and 35 tons of sediment pollution annually to Rock Creek, the Potomac River, and the Chesapeake Bay.

Glen Stream Restoration (VA)

Grantee: Lewis Ginter Botanical Garden
 Grant Amount:\$94,154
 Matching Funds:\$389,825
 Total Project:\$483,979

Improve 550 feet of stream, reducing erosion and maximizing site porosity by implementing intentional use of vegetation which will increase plant, soil and water interaction, leveraging natural ability to absorb the particulate matter and excess nutrients that flow from the manmade landscape. Project will restore natural drainage patterns and water table levels, and the project will offer educational experiences for more than 450,000 visitors a year.

Turkey Hill Clean Water Partnership: Continued Momentum for Market-Driven Conservation Action (PA)

Grantee: Alliance for the Chesapeake Bay
 Grant Amount:\$500,000
 Matching Funds:\$500,000
 Total Project:\$1,000,000

Work collectively with Turkey Hill Dairy, the Alliance for the Chesapeake Bay and the Maryland and Virginia Milk Producers Cooperative Association to support the farmers that supply milk to Turkey Hill Dairy by installing conservation practices. Project will accelerate implementation and build momentum for the Turkey Hill Clean Water Partnership.

Restoring the Octoraro Reservoir: Continued Plain Sect Conservation Action (PA)

Grantee: Alliance for the Chesapeake Bay
 Grant Amount:\$500,000
 Matching Funds:\$502,500
 Total Project:\$1,002,500

Achieve pollutant reductions in subwatersheds contributing to drinking water supplies in the Octoraro Creek Watershed through outreach and agricultural best management practices installation on Plain Sect farms. Project will prioritize farms and agricultural best management practices based on their nitrogen reduction potential, with implementation efforts being led by the Alliance for the Chesapeake Bay.

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Canada geese in the Chesapeake Bay

Strengthening Stronghold Brook Trout Patches through Stream Restoration and Habitat Improvement (PA)

Grantee: Trout Unlimited

Grant Amount:\$274,298

Matching Funds:\$167,632

Total Project:\$441,930

Complete 10 high priority habitat restoration projects and 20 new technical assistance projects located within eastern brook trout stronghold patches in three geographic focus areas in the Chesapeake Bay watershed of Pennsylvania. Project will select focal geographies considering existing partnerships, ownership, access, and presence of both stronghold and persistent eastern brook trout patches.

Bringing the Lynnhaven River Oyster Population to Restored Status (VA)

Grantee: Chesapeake Bay Foundation

Grant Amount:\$490,372

Matching Funds:\$165,302

Total Project:\$655,674

Deliver a comprehensive oyster restoration project in the Lynnhaven River that will enhance the population of native eastern oysters and engage the watershed community on oyster restoration projects. Project will establish 7 acres of new oyster reef and place 15 million baby oysters within the river, which are estimated to remove 335 pounds of nitrogen and 67 pounds of phosphorus from the Lynnhaven River.

Collaborative Conservation and Brook Trout Restoration in the Cacapon Watershed (WV)

Grantee: Cacapon & Lost Rivers Land Trust

Grant Amount:\$350,630

Matching Funds:\$350,630

Total Project:\$701,260

Conserve high-quality riparian corridors through conservation easements and improve brook trout habitat. Project will convene the Cacapon Watershed Collaborative

to identify shared goals of watershed partners and build capacity for increased land protection and ecologically sustainable land management, and behavior change research will be conducted to learn effective strategies for engaging landowners in stewardship.

Greening Southside Richmond (VA)

Grantee: Chesapeake Bay Foundation

Grant Amount:\$227,467

Matching Funds:\$82,080

Total Project:\$309,547

Improve water quality in Little Westham, Almond, Proctors, and Falling creeks located in Southside Richmond, Virginia by reducing impervious surfaces and managed turf, planting 250 trees on municipal property, and installing green infrastructure projects to retain and treat polluted runoff. Project will work with Richmond’s Office of Sustainability to identify areas where green infrastructure projects are most needed to reduce heat stress and improve health outcomes for communities.

Delmarva Working and Natural Lands Conservation and Restoration (MD)

Grantee: Lower Shore Land Trust

Grant Amount:\$194,636

Matching Funds:\$428,609

Total Project:\$623,245

Develop a Delmarva Rural Lands Working Group and Tri-County Forest Conservation Program to assess, prioritize, and implement restoration and conservation projects in the Chesapeake Bay portion of the lower Delmarva Peninsula in Maryland. Project will lead to healthy riparian forests, improved water quality, and restored wetland habitat, benefiting American black duck, and other terrestrial and aquatic living resources.

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Restoring, Enhancing, and Expanding Brook Trout Patch Strongholds in Thorn Creek (WV)

Grantee: Trout Unlimited

Grant Amount:\$476,470
 Matching Funds:\$473,272
 Total Project:\$949,742

Restore riparian buffers, in-stream habitat, eroding stream banks and aquatic organism passage within the Thorn Creek watershed and the Upper South Branch of the Potomac to the benefit of water quality, local agricultural producers, and brook trout strongholds. Project will result in the completion of restoration efforts to enhance a brook trout stronghold, the expansion of such efforts into the Upper South Branch of the Potomac, and the documentation of additional un-assessed brook trout patches.

Wylie Brook Aquatic Passage Connectivity Project (NY)

Grantee: Trout Unlimited

Grant Amount:\$171,118
 Matching Funds:\$143,000
 Total Project:\$314,118

Replace three undersized culverts that are a barrier for brook trout, which will reconnect more than 7 miles of habitat for brook trout in the watershed. Project will build a partnership between Trout Unlimited, the U.S. Fish and Wildlife Service, the state Department of Environmental Conservation and the local township of Coventry, New York, and enhance the eastern brook trout population stronghold.

Implementation of Agricultural Best Management Practices in Salisbury Township (PA)

Grantee: Lancaster Farmland Trust

Grant Amount:\$494,347
 Matching Funds:\$186,900
 Total Project:\$681,247

Reduce nitrogen, phosphorus, and sediment pollution flowing from Salisbury Township farms to the Chesapeake Bay, specifically in the Pequea Creek Watershed. Project will expand on an existing, innovative initiative in Salisbury Township to drive the agricultural community toward environmental compliance and sustainability and result in best management practices implemented on five farms in the Pequea Creek Watershed, and contribute to the completion of two whole-stream restoration efforts.

Enhancing Community Partnerships for Restoration of the Anacostia River Corridor (DC)

Grantee: Department of Energy and Environment

Grant Amount:\$500,000
 Matching Funds:\$500,000
 Total Project:\$1,000,000

Restore freshwater tidal habitat in the Anacostia River. Project will lead to the creation of one comprehensive restoration plan and restoration of 10 acres of tidal wetland for American black duck and water quality improvements.



Tidal flat on the Chesapeake Bay

Demonstrating Sustainable Farm Operations at the Augusta County Correctional Center (VA)

Grantee: Headwaters Soil and Water Conservation District

Grant Amount:\$238,024
 Matching Funds:\$351,600
 Total Project:\$589,624

Install 5 miles of stream fencing, improve 350 acres of livestock pasture management, and establish 35 acres of riparian grass buffers and 16 acres of riparian forest buffers on an agriculture operation at the Augusta County Correctional Center. Project will improve sustainability of the farm operation and advance measurable progress toward the Little Calf pasture River local Total Maximum Daily Load for sediment and Virginia's Phase III Watershed Implementation Plan.

Establishing an Poultry Litter Matching Service for a Cleaner Bay and Healthy Farms (DE, MD, PA)

Grantee: Delmarva Poultry Industry

Grant Amount:\$49,890
 Matching Funds:\$10,018
 Total Project:\$59,908

Develop an online poultry litter matching tool to connect producers with excess litter to improve crop growth and soil health. Project will support the implementation of Maryland's Phosphorus Management Tool (PMT) and Phase 3 Watershed Implementation Plans across Delmarva, thereby helping to meet regional water quality and healthy watershed goals.

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Restoration of the Eastern Oyster in the Eastern Branch of the Lynnhaven River (VA)

Grantee: Lynnhaven River Now

Grant Amount:\$500,000
 Matching Funds:\$564,220
 Total Project:\$1,064,220

Restore oyster reefs in the Eastern Branch of the Lynnhaven River in Virginia Beach, Virginia. Project will remove approximately 1,626 pounds of nitrogen a year through denitrification and 2,541 pounds of nitrogen storage in the shells and bodies of oysters and reef fauna, an additional 60 acres reef habitat target in the Lynnhaven, resulting in removal of 32,520 pounds of nitrogen a year through denitrification and 50,820 pounds of nitrogen storage.



Brook trout

Restoring Two Key Tributaries in the Elizabeth River (VA)

Grantee: The Elizabeth River Project

Grant Amount:\$499,168
 Matching Funds:\$500,000
 Total Project:\$999,168

Work with Norfolk, three universities and citizens and businesses to restore urban water quality, oysters and wetlands in two key tributaries to the Elizabeth River. Project will achieve a sub-watershed management plan for Knitting Mill Creek and construction of catalyst projects including a living shoreline, oyster reef, rain gardens and other green infrastructure to be open to the public at a new Resilience Learning Park.

Fleets Branch Stream Restoration (VA)

Grantee: City of Petersburg

Grant Amount:\$500,000
 Matching Funds:\$950,000
 Total Project:\$1,450,000

Implement a shovel-ready, cost effective stream restoration project. Project will complete phase 2 of a 2,027-linear-foot restoration of Fleets Branch that has already been designed, the first half of which is presently under construction.

SMALL WATERSHED PLANNING AND TECHNICAL ASSISTANCE GRANTS

Analyzing Impacts of Poultry Litter on Water Quality on Eastern Shore Freshwater Streams (VA)

Grantee: College of William and Mary, Virginia Institute of Marine Science

Grant Amount:\$49,310
 Matching Funds: N/A
 Total Project:\$49,310

Investigate and expand freshwater stream assessments on the Eastern Shore of Virginia, specifically Chesapeake Bay drainages in Accomack and Northampton counties. Project will examine freshwater stream nutrient levels to identify water quality impairments from poultry operations via stormwater runoff using estimates of land cover in the drainage areas including variables such as the presence and distance of poultry operations, agricultural fields, residential housing, forest, and swamps.

Municipal Urban Forestry Needs Analysis and Pilot Projects for Prince George's County (MD)

Grantee: The Neighborhood Design Center

Grant Amount:\$49,301
 Matching Funds:\$15,000
 Total Project:\$64,301

Conduct an urban forestry needs analysis for municipalities in Prince George's County. Project will survey urban forest managers to assess their current urban forest status and identify opportunities to provide planning and technical assistance for managing public trees, and will also assist the Town of Forest Heights and the City of New Carrollton to assess and manage their public trees.

Retrofitting Businesses and Industrial Properties (VA)

Grantee: Hampton Roads Planning District Commission

Grant Amount:\$50,000
 Matching Funds: N/A
 Total Project:\$50,000

Identify large-scale private industrial and business sites willing to improve water quality and provide flood protection with green infrastructure and implementation of BMPs. Project will identify 10-12 business or industries that will implement BMPs in the private sector; develop a list of design concepts, budgets, and funding solutions for future implementation; and identify barriers and provide incentives for reporting nutrient credits for the Bay total maximum daily load.

Old Love Point Park Stream and Park Restoration (MD)

Grantee: Shorerivers

Grant Amount:\$50,000
 Matching Funds:\$20,000
 Total Project:\$70,000

Produce a comprehensive stream restoration design that incorporates new stormwater practices within the park, wetland areas adjacent to the stream restoration, and a stream restoration design that will complement both the new stormwater and wetland areas. Project will design approximately 1,500 linear feet of stream restoration, 2 to 3 acres of wetlands/floodplains, and two to three bioretentions.

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Improving the Delivery of Outreach and Technical Assistance for Implementation in York County (PA)

Grantee: York County Planning Commission

Grant Amount: \$50,000
 Matching Funds: N/A
 Total Project: \$50,000

Complete groundwork for a successful messaging campaign, a coalition with broader and more diverse representation, and reported implementation of water quality best management practices. Project will develop a Countywide Action Plan messaging strategy to effectively educate the community, expand the capacity of the York County Coalition for Clean Waters, a key partner in Countywide Action Plan implementation efforts, and embark on a long-term clean water messaging campaign.

Little Chiques Park Stream Bank Restoration and Green Infrastructure Master Plan (PA)

Grantee: Mount Joy Borough

Grant Amount: \$50,000
 Matching Funds: \$65,000
 Total Project: \$115,000

Design and permit an approximately 5,000-linear-foot stream segment of Little Chiques Creek, located within the bounds of Little Chiques Park situated in Mount Joy, Pennsylvania. Project will plan to improve drainage patterns within the park as they impact the stream corridor and cause uncontrolled flooding within the park, and will improve public access to the creek for fishing and other recreation purposes.

Identifying, Prioritizing, and Incentivizing Marsh Management Actions in the Chesapeake Bay (MD, VA)

Grantee: The Nature Conservancy

Grant Amount: \$49,699
 Matching Funds: N/A
 Total Project: \$49,699

Develop a marsh management action decision support tool and resilience credit targeting parameters, plus streamline and enhance the effectiveness of marsh management actions and make funding opportunities more accessible for tidal marsh conservation practitioners throughout the Chesapeake Bay. Project will evaluate the climatic and human pressures that are degrading tidal marsh habitats within a holistic context that weighs inputs, actions, and outcomes to determine best management practices.

Modelling an Approach to Greening Gray Infrastructure (MD)

Grantee: National Wildlife Federation

Grant Amount: \$50,000
 Matching Funds: \$38,101
 Total Project: \$88,101

Conduct studies of offshore breakwaters in the Choptank River and complete engineered designs incorporating original structures with oyster castles and oyster spat on identified sites, including Bill Burton Fishing Piers State Park and Horne Bay along Horn Point Laboratory's campus. Project will develop oyster retrofit designs that will create complex



American black duck

fish and shellfish habitat and provide enhanced, measurable nutrient and sediment reduction benefits when implemented.

Bradford County Accelerated Watershed Implementation Plan Development (PA)

Grantee: Bradford County Conservation District

Grant Amount: \$49,986
 Matching Funds: \$5,000
 Total Project: \$54,986

Accelerate planning of Bradford County's Watershed Implementation Plan in three phases of operation: stream rehabilitation, agricultural management, and stream crossing replacement. Project will address resource gaps in project implementation utilizing Bradford County's database of planning needs resulting from landowner and/or municipal assistance requests.

Development of Stormwater Management Strategies in the Nanticoke River Watershed (DE)

Grantee: Nanticoke Watershed Alliance

Grant Amount: \$49,978
 Matching Funds: N/A
 Total Project: \$49,978

Develop a stormwater management strategy for regulated and unregulated communities to meet Delaware's Chesapeake Bay Phase III Watershed Implementation Plan goals in the Nanticoke River watershed. Project will begin implementation of the top three priorities: maximize existing water quality opportunities and investments; reinvigorate water quality project convening and coordination; and improve ditch management for water quality benefits.

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Wyoming Valley Chesapeake Bay Tributary Field Assessments and Monitoring (PA)

Grantee: Eastern Pennsylvania Coalition for Abandoned Mine Reclamation

Grant Amount: \$50,000
 Matching Funds: \$18,000
 Total Project: \$68,000

Conduct field assessments and monitoring of various streamside conditions and structural impediments to aquatic organism passage at culverts throughout the targeted supporting municipalities with a focus on Sugar Notch Run, Solomon, Warrior, Nanticoke, and Newport creeks, along the Susquehanna River in the Wyoming Valley, Luzerne County. Project will communicate and recommend to partners, projects for future improvements and best management practices.

Greater Baybrook Green Infrastructure Master Plan (MD)

Grantee: Greater Baybrook Alliance

Grant Amount: \$49,788
 Matching Funds: \$75,000
 Total Project: \$124,788

Develop a green infrastructure master plan that will create a network of green hubs and corridors and related programming and jobs. Project will build upon a green infrastructure concept plan, conducted by the American Planning Association, for the Brooklyn community and is identified as a high priority in the 2016 Greater Baybrook Vision and Action Plan, the communities' master plan.

Monitoring Water Quality and Health of the Wicomico River (MD)

Grantee: Wicomico Environmental Trust

Grant Amount: \$50,000
 Matching Funds: \$235,000
 Total Project: \$285,000

Recruit volunteers to monitor the waters of the Wicomico River and its tributaries on Maryland's Lower Eastern Shore to collect and develop objective, scientifically credible water quality data. Project will train volunteers to collect water samples and record site conditions, assess samples water clarity, total nitrogen and phosphorus, chlorophyll a, and bacteria, and conduct scientific analysis by trained scientists before results are delivered to the public.

Preserving Open Space and Protecting Vulnerable Habitat (VA)

Grantee: Capital Region Land Conservancy

Grant Amount: \$50,000
 Matching Funds: \$27,000
 Total Project: \$77,000

Develop a strategy for the city of Richmond to identify and protect additional lands that improve the health and function of tributaries, improve habitat and establish wildlife corridors, while also creating public access. Project will



Great egret on an oyster bed

include significant community outreach and engagement to improve public participation in the location and design of habitat restoration, and outcomes will include one implementation plan that includes prioritization of 10 parcels.

Roberts Field Restoration (MD)

Grantee: Carroll County Government - Bureau of Resource Management

Grant Amount: \$50,000
 Matching Funds: \$121,342
 Total Project: \$171,342

Engineer drawings to retrofit the Roberts Field existing wet pond stormwater management facility with a drainage area of 47 acres, 21 of which are impervious, to an innovative wet pond and submerged gravel wetland facility and create 900 linear feet of restored stream. Project will lead to improved water quality, provide additional natural habitat, reduce thermal impacts, and maintain the community amenity at the headwaters for Piney Run, a Use Class III cold water trout stream.

River Herring Habitat Assessment for Oxon Run and Lower Beaverdam Creek (DC, MD)

Grantee: Metropolitan Washington Council of Governments

Grant Amount: \$49,805
 Matching Funds: \$12,601
 Total Project: \$62,406

Evaluate river herring habitats upstream and downstream of the fish blockages and propose structures to provide passage for these blockages, monitor for the strength of river herring, and provide a brief study informational plan. The project will restore river herring access and use of high quality migratory stream habitat and provide capacity and planning

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information for Prince George's County Department of the Environments and District of Columbia Department of Energy and Environment.

Little Beaver Creek Stream and Riparian Buffer Restoration (PA)

Grantee: Alliance for the Chesapeake Bay

Grant Amount: \$49,998

Matching Funds: N/A

Total Project: \$49,998

Conduct initial feasibility analysis and planning efforts on the highly eroded streambanks of 1,275 foot segment of Little Beaver Creek, which runs through farm property owned in Strasburg Township, Lancaster County, Pennsylvania.

Project will result in a report which will outline project scope, permitting requirements, and estimated project costs which will address streambank erosion.

Maryland State Fairgrounds Green Infrastructure Planning and Design

Grantee: Center for Watershed Protection

Grant Amount: \$49,476

Matching Funds: N/A

Total Project: \$49,476

Provide technical and coordination assistance to the Maryland State Fair and its many partners to advance high-profile green infrastructure projects and facilitate improved Fairgrounds operations. Project will include a project site survey, geotechnical investigation, stormwater engineering design, project implementation planning and coordination, and capacity building for local residents.

Bedford County Watershed Action Plan Development (PA)

Grantee: Bedford County Conservation District

Grant Amount: \$47,000

Matching Funds: \$6,400

Total Project: \$53,400

Conduct sub-watershed assessments of Spicer Brook, Cumberland Valley Run, Beavercreek and their related tributaries in Lebanon County to determine excessive sources of nutrients and sediment and provide recommendations for restoration or improvements with the goal of identifying best management practices for implementation. Project will deliver Watershed Action Plans that will identify priority restoration sites and the associated concept master plans for those sites.

Hickory Ridge Walkable Watershed Concept Plan Development for the Patuxent River Watershed (MD)

Grantee: Community Ecology Institute

Grant Amount: \$49,949

Matching Funds: \$23,500

Total Project: \$73,449

Address stormwater management that brings key stakeholders and members of the community together with planners to develop a shared vision and set of

priorities. Project will be a community-based concept plan that includes a network of stormwater management opportunity sites that focus on Patuxent River and Chesapeake Bay watershed restoration goals to address flooding and stormwater runoff, nutrient and sediment reduction, improving water quality, and improving access to community amenities.

Expanding Growing Native Tree Initiative (MD, VA)

Grantee: The Potomac Conservancy

Grant Amount: \$47,518

Matching Funds: N/A

Total Project: \$47,518

Expand the Growing Native program by building a regional coalition of stakeholders to connect disparate native tree planting efforts in the Potomac Watershed and build a network of volunteers increasing the number of native seeds collected and market existing native tree planting opportunities. Project will convene the coalition, build a website that will consolidate community engagement opportunities, and expand seed collection drop off sites, nursery sites, and community-led seed events.

Leggett's Creek Greenway Project (PA)

Grantee: Lackawanna River Conservation Association

Grant Amount: \$50,000

Matching Funds: \$35,258

Total Project: \$85,258

Address environmental issues caused by past anthracite coal mining activities and commercial and residential development within this sub-watershed which has resulted in a compromised ecosystem lacking in biodiversity. Project will mitigate erosion and sediment loading through the installation of bank stabilization measures, and storm water runoff management, and monitoring and management program will be established to ensure sustained project efficiency.

Outfall and Gully Stabilization Project Design and Regional Pollutant Reduction Calculator (VA)

Grantee: City of Hopewell, Virginia

Grant Amount: \$34,100

Matching Funds: N/A

Total Project: \$34,100

Restore three severely eroding stormwater outfalls in the City of Hopewell, Virginia and develop standard design guidance and a pollutant reduction calculator to assist regional adoption of the newly approved Chesapeake Bay Program's Guidance for Crediting Outfall and Gully Stabilization Projects. Project will improve the water quality of local impaired waters and the Appomattox River and create a planning tool for evaluating and design that will be distributed to regional partners.