



Chesapeake Bay Small Watershed Grants Program in Pennsylvania

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FUNDING PARTNERS

- U.S. Environmental Protection Agency
- U.S. Department of Agriculture, Natural Resources Conservation Service and U.S. Forest Service
- U.S. Department of the Interior, U.S. Fish and Wildlife Service
- Altria

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 \$6.8 billion.

Learn more at www.nfwf.org

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Susquehanna River | Credit: Parsons

OVERVIEW

The Chesapeake Bay Stewardship Fund (CBSF) is dedicated to protecting the bay by helping local communities clean up and restore their polluted rivers and streams. A major emphasis of CBSF grantmaking focuses on supporting on-the-ground efforts in Pennsylvania's Susquehanna River basin to implement agricultural best management practices, restore stream and riparian habitats, and advance the use of green infrastructure to control stormwater and local flooding.

In 2021 the Stewardship Fund awarded more than \$11 million to 31 projects working to support Pennsylvania's clean water and conservation goals. These grants span multiple programs – including the Innovative Nutrient and Sediment Reduction grants, Small Watershed Grants, and the new Most Effective Basins Grants program – each with unique roles in advancing specific bay restoration strategies. Reflecting local interest and investment in these efforts, these 31 grants leveraged over \$19 million in matching funds and in-kind services from grantees and partners to generate a total impact of more than \$30 million.

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Pennsylvania agriculture | Credit: Parsons

MOST EFFECTIVE BASIN GRANTS

New for 2021, the Pennsylvania Most Effective Basins Grants (MEB) program supports projects that accelerate implementation of cost-effective agricultural best management practices in selected basins of the Chesapeake Bay watershed of Pennsylvania. The intent of the MEB program is to assist the Commonwealth of Pennsylvania in achieving its 2025 water quality goals for the agricultural sector under the Chesapeake Bay Total Maximum Daily Load (TMDL) and Pennsylvania's Phase III Watershed Implementation Plan (WIP). A total of 10 projects were awarded under the 2021 MEB program, awarding nearly \$2.5 million and leveraging an additional \$1.5 million in matching funds.

Boosting Implementation of Agricultural Best Management Practices (PA)

Grantee: Alliance for the Chesapeake Bay

Grant Amount:..... \$915,000
 Matching Funds:..... \$160,125
 Total Project Amount:..... \$1,075,125

Implement best management practices on farms in Pennsylvania's Lancaster, Union, and Chester counties. Project will leverage existing partnerships and corporate resources to provide cost-share programs and direct implementation support for targeted water quality and conservation improvements on participating farms.

Reducing Nutrient Loss from Manure in Fishing Creek (PA)

Grantee: Columbia County Conservation District

Grant Amount:..... \$216,203
 Matching Funds:..... \$3,653
 Total Project Amount:..... \$219,856

Install conservation practices on a farm in Benton Township. Project will prevent the leaching of manure nutrients and sediment into local waterways through the construction of a heavy use area, manure storage, and other best management practices.

Developing Agricultural Plans and Cover Cropping Programs in the Middle Creek Watershed (PA)

Grantee: Snyder County Conservation District

Grant Amount:..... \$20,719
 Matching Funds:..... \$5,705
 Total Project Amount:..... \$26,424

Develop agricultural plans for farmers in the Middle Creek watershed of Snyder County and incentivize cover cropping through incentive payments. Project will reduce nutrient and sediment contributions reaching local streams and watersheds of the Chesapeake Bay watershed and increase the number of cover crop acres planted within the Middle Creek watershed.

Reducing Nutrient Loss from Manure in Lancaster through Expanded Adoption of Manure Injection (PA)

Grantee: Sustainable Chesapeake

Grant Amount:..... \$249,174
 Matching Funds:..... \$150,000
 Total Project Amount:..... \$399,174

Work with partners to expand the adoption of low-disturbance manure injection on a range of farms. Project will improve water quality by reducing nitrogen and phosphorus loss from land-applied manure in most-effective basins in Lancaster County, Pennsylvania.

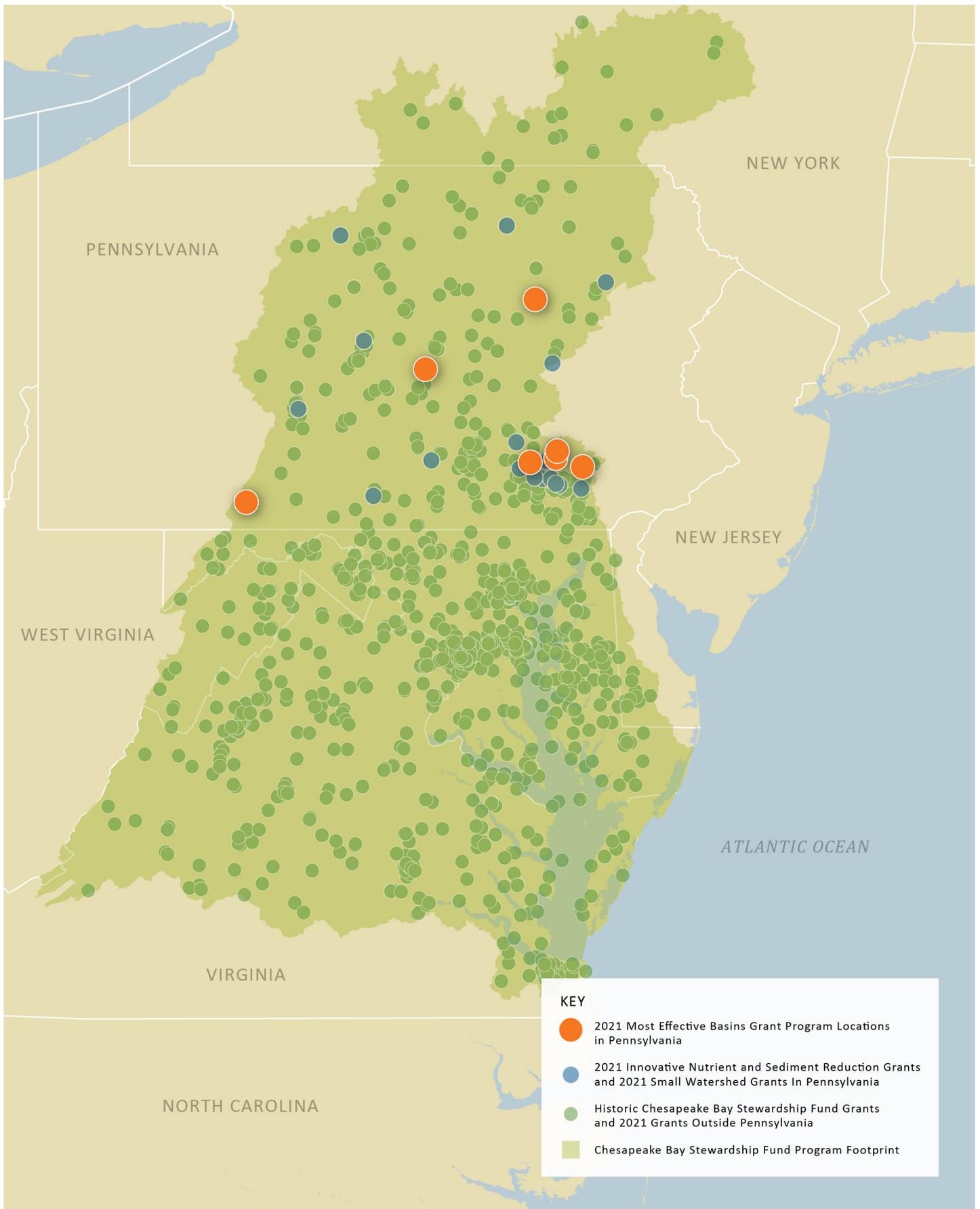
Reducing Nutrient Loss Through Manure Management in Snyder County (PA)

Grantee: Snyder County Conservation District

Grant Amount:..... \$250,000
 Matching Funds:..... \$764,840
 Total Project Amount:..... \$1,014,840

Decrease nitrogen leaching and runoff by installing best management practices on a farm in Snyder County, Pennsylvania. Project will implement changes to allow the farmer to store manure longer, apply it at correct times, and reduce runoff.

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Addressing Polluted Runoff through Agricultural Best Management Practices in Clay Township (PA)

Grantee: TeamAg

Grant Amount:..... \$249,700

Matching Funds:..... \$135,553

Total Project Amount:..... \$385,253

Install barnyard runoff control best management practices to control stormwater and treat polluted runoff on a farm in Lititz, Pennsylvania. Project will reduce polluted runoff from dairy and feed bunks that discharge into Middle Creek.

Collaborative Water Quality Improvement in the Upper Conestoga River Watershed (PA)

Grantee: Lancaster Farmland Trust

Grant Amount:..... \$241,754

Matching Funds:..... \$150,000

Total Project Amount:..... \$391,754

Implement agricultural best management practices including cattle walkways, stabilized access roads, and a roofed manure stacking structure on a farm in East Earl, Pennsylvania. Project will reduce nitrogen, phosphorous, and sediment pollution flowing to the Chesapeake Bay.

Implementing Best Management Practices to Address Runoff at Dividing Ridge Farm (PA)

Grantee: Somerset Conservation District

Grant Amount:..... \$47,720

Plant cover crops to reduce soil loss and utilize the nutrients from applied manure on a farm in Somerset County. Project will plant cover crops on land where corn silage has been harvested, preventing manure nutrients from entering the Chesapeake Bay Watershed.

Implementing Whole Farm Conservation Practices in the Chiques Creek Watershed (PA)

Grantee: Lancaster County Conservation District

Grant Amount:..... \$223,044

Matching Funds:..... \$20,000

Total Project Amount:..... \$243,044

Implement whole-farm conservation on a beef, poultry, and crop farm in the headwaters of the Back Run in Pennsylvania. Project will install a variety of nitrogen reduction practices including riparian buffers, grassed waterways, and roofed manure storage to improve water quality in the Little Chiques Creek watershed.

Developing Conservation Plans to Address Water Quality on Farms in Clay Township (PA)

Grantee: TeamAg

Grant Amount:..... \$48,400

Matching Funds:..... \$105,750

Total Project Amount:..... \$154,150

Develop manure management and conservation plans for farms in Clay Township, in Lancaster County, Pennsylvania. Project will identify water quality concerns on 12 farms and begin the process of addressing these concerns.



Tree planting | Credit: Parsons

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INNOVATIVE NUTRIENT AND SEDIMENT REDUCTION GRANTS

The Innovative Nutrient and Sediment Reduction Grants (INSR) program supports projects that accelerate the rate and scale of water quality improvements specifically through the coordinated and collaborative efforts of sustainable, regional-scale partnerships in implementing proven water quality improvement practices in a more cost-effective manner. A total of six projects executing work in Pennsylvania were awarded through the 2021 INSR program totaling nearly \$5 million and leveraging an additional \$12 million in matching funds.

Lancaster Clean Water Partners Collaborating and Scaling Up Stormwater Management (PA)

Grantee: Conservation Foundation of Lancaster County
 Grant Amount:..... \$969,326
 Matching Funds:..... \$982,640
 Total Project Amount:..... \$1,951,966

Coordinate stormwater management projects in priority catchments where Lancaster County's agriculture and stormwater land uses intersect in unique ways. Project will accelerate efforts to implement the Countywide Action Plan, advancing conservation education, sustaining outreach, delisting up to half-mile segments of stream in priority catchments, and extend the impact of the Lancaster Clean Water Partners' collaborative effort.

Accelerating Green Infrastructure Implementation in Wyoming Valley (PA)

Grantee: Wyoming Valley Sanitary Authority
 Grant Amount:..... \$848,440
 Matching Funds:..... \$1,250,000
 Total Project Amount:..... \$2,098,440

Implement green infrastructure demonstration projects, form a stormwater steering committee, recommend updates to municipal codes and policies to remove implementation barriers, provide education and training for design, and assess areas for further opportunities. Project will scale up green infrastructure implementation, build broader public and private sector acceptance, accelerate the rate of water quality improvements, and cultivate and enhance partnership and network growth.

Creating Healthy Watersheds through Partnerships and Implementation in Flourishing Landscapes (PA)

Grantee: Pennsylvania Department of Conservation and Natural Resources
 Grant Amount:..... \$1,000,000
 Matching Funds:..... \$1,000,000
 Total Project Amount:..... \$2,000,000

Accelerate implementation pace of watershed forestry best management practices like riparian forest buffer, urban forest planting, and conservation landscaping implementation through partner-funded outreach, large contract plantings, investments in professional development, and creation of experiential learning labs. Project will galvanize



Soil health practices | Credit: Parsons

Pennsylvania's existing riparian forest buffer and lawn conversion partnerships to elevate their ability to outreach and implement.

Creating a Regenerative Organic Dairy Industry (PA)

Grantee: Pasa Sustainable Agriculture
 Grant Amount:..... \$997,350
 Matching Funds:..... \$7,390,000
 Total Project Amount:..... \$8,387,350

Project will integrate dairy farms to an education and peer-to-peer learning network, coordinate regenerative farm business plan processes for dairy farms to regenerate soil, set the farm on a sustainable and profitable pathway and certify dairy farms in the Regenerative Organic Certified standard. Project will work with project partners TeamAg and the Origin Milk Company to pioneer a model of 100% grass-fed dairy that grows soil health, improves water quality and sustains family farms.

Connecting Urban and Agricultural Sectors for Accelerated Water Quality Improvements (PA)

Grantee: Blair County Conservation District
 Grant Amount:..... \$664,428
 Matching Funds:..... \$748,840
 Total Project Amount:..... \$1,413,268

Install stream restoration projects, riparian buffers, and green infrastructure through municipality partnerships. Partner with farmers to stabilize farm lanes and in-field erosion/scouring sites, and host workshops to encourage the adoption of these practices. Project will accelerate water quality improvements by networking with existing and new partners to install sound water quality improvements in Blair County - the Beaverdam, Frankstown, and Little Juniata watersheds.

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Clean Water Cumberland Scaling Up Implementation in Cumberland County (PA)

Grantee: Cumberland County Commissioners
 Grant Amount:..... \$500,000
 Matching Funds:..... \$582,136
 Total Project Amount:.....\$1,082,136

Provide infrastructure to bundle contracting of agricultural best management practices across several priority farms. Project will formalize and enhance capacity of Clean Water Cumberland, and create impactful improvements to water quality in Cumberland County and downstream.

SMALL WATERSHED GRANTS

The Small Watershed Grants (SWG) program supports projects within the Chesapeake Bay watershed that promote community-based efforts to protect and restore the diverse natural resources of the Chesapeake Bay and its tributary rivers and streams and support local government implementation efforts.

NFWF awards funding through two distinct funding opportunities: SWG Implementation grants are awarded for projects that result in direct, on-the-ground actions to protect and restore water quality, species, and habitats in the Bay watershed. SWG Planning and Technical Assistance grants award funding for projects that enhance local capacity to more efficiently and effectively implement future on-the-ground actions through assessment, planning, design, and other technical assistance-oriented activities. A total of 15 projects working in Pennsylvania received funding through the 2021 SWG program, totaling nearly \$4 million and leveraging more than \$5.5 million in local matching funds.

Restoring Priority Stream in Manheim Township (PA)

Grantee: Manheim Township
 Grant Amount \$457,500
 Matching Funds:..... \$152,500
 Total Project Amount:..... \$610,000

Restore and improve the overall stream health and function of local and regional bodies of water in Manheim Township. Project will restore the degraded stream channel along approximately 1,507 linear feet of an unnamed tributary to the Conestoga River, 1,172 linear feet of Landis Run, and 1,567 linear feet of Bachman Run. This will provide pollutant load reductions of approximately 190,560 pounds of sediment, 217 pounds of nitrogen, and 100 pounds of phosphorus annually.

Stream Stabilization and Riparian Forest Buffer Installation in Killinger Creek (PA)

Grantee: South Londonderry Township
 Grant Amount:..... \$220,000
 Matching Funds:..... \$95,000
 Total Project Amount:..... \$315,000

Improve water quality and stream health in Killinger Creek by reducing the pollutant loading rates that contribute to existing stream impairments and increasing in-stream and

forested habitat for wildlife species. Project will stabilize and restore 1,600 feet of Killinger Creek, plant a 35 foot riparian forest buffer on both streambanks, and educate the community on why these projects are important for clean water.

Watershed Approach to Stream Corridor Restoration in the Headwaters of the Chesapeake Bay (NY, PA)

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

Grant Amount:..... \$500,000
 Matching Funds:..... \$179,000
 Total Project Amount:..... \$679,000

Assess and implement improvements to address water quality, stormwater retention, habitat restoration, and watershed resiliency on a small subwatershed scale. Project will provide citizen stewardship opportunities and result in 57,439.15 pounds of sediment, 28.21 pounds phosphorus, and 177.26 pounds of nitrogen being avoided annually within the Upper Susquehanna and Chemung River Watersheds.

Restoring Floodplain to Improve Water Quality in Little Conestoga Creek (PA)

Grantee: The Little Conestoga Creek Foundation
 Grant Amount:..... \$440,000
 Matching Funds:..... \$880,000
 Total Project Amount:.....\$1,320,000

Implement best management practices to restore floodplain and address nitrogen, phosphorous, and sediment in Little Conestoga Creek in Pennsylvania. Project will restore floodplain, reduce flooding, provide habitat creation, and restore biodiversity.



Riparian buffer | Credit: Parsons



Susquehanna River | Credit: Parsons

Restoring Floodplain by Addressing Legacy Sediment in Pequea Creek (PA)

Grantee: Salisbury Township
 Grant Amount:..... \$500,000
 Matching Funds:..... \$199,000
 Total Project Amount:..... \$699,000

Restore floodplain along approximately 1,427 linear feet of an unnamed tributary to Pequea Creek in Salisbury Township, Lancaster, Pennsylvania. Project will provide water quality benefits, flood reduction, native habitat creation and enhancements, and additional ecosystem services to the Pequea Creek Watershed, other downstream waters, and ultimately the Chesapeake Bay.

Leveraging New Corporate Clean Water Partnerships in Lancaster and Lebanon Counties (PA)

Grantee: Alliance for the Chesapeake Bay
 Grant Amount:..... \$500,000
 Matching Funds:..... \$2,055,000
 Total Project Amount:..... \$2,555,000

Engage corporate partners to install agricultural best management practices on farms within Lancaster and Lebanon counties, Pennsylvania. Project will support dairy farmers in reducing nutrient and sediment pollution from their work.

Bradford County Accelerated Watershed Implementation Plan Development - II (PA)

Grantee: Bradford County Conservation District
 Grant Amount:..... \$49,995
 Matching Funds:..... \$41,444
 Total Project Amount:..... \$91,439

Accelerate planning of Bradford County’s Watershed Implementation Plan in the areas of stream rehabilitation,

agricultural management, stream crossing replacement, and forestry. Project will address water quality impacts in the County by creating designs for stream rehabilitation and crossings, comprehensive nutrient management, riparian buffer installation, and reforestation.

Designing Floodplain Restoration in Santo Domingo Creek (PA)

Grantee: Lititz Run Watershed Alliance
 Grant Amount:..... \$50,000
 Matching Funds:..... \$5,000
 Total Project Amount:..... \$55,000

Conduct site assessments and design for a floodplain restoration project along 2,500 feet of the Santo Domingo Creek within the Lititz Run priority subwatershed in Lancaster, Pennsylvania. Project will include a geomorphic site assessment, detailed topographic survey, and evaluation of bank erosion rates, culminating in a design including a report and detailed design drawings.

Assessing and Prioritizing Restoration Actions in the First Fork Sinnemahoning Creek Watershed (PA)

Grantee: Western Pennsylvania Conservancy
 Grant Amount:..... \$49,559
 Matching Funds:..... \$46,232
 Total Project Amount:..... \$95,791

Complete a comprehensive assessment of the First Fork Sinnemahoning Creek watershed to develop prioritized restoration projects for collaborative implementation. Project will develop a framework to implement best management practices aimed towards reducing nutrient and sediment contributions and improving eastern brook trout habitat.

Designing a Stormwater Treatment Plan in Lititz Borough (PA)

Grantee: Lititz Borough

Grant Amount:.....\$20,000

Matching Funds:.....\$5,000

Total Project Amount:.....\$25,000

Design a stormwater treatment plan for the Lititz Borough Regional Stormwater Facility to assist in managing existing stormwater runoff. Project will determine the best method for achieving large stormwater treatment, volume control, and water quality benefits in the project area and in the catchment.

Accelerating Best Management Practice Implementation in Lancaster and Chester Counties (PA)

Grantee: Stroud Water Research Center

Grant Amount:.....\$499,797

Matching Funds:.....\$1,622,194

Total Project Amount:.....\$2,121,991

Develop comprehensive nutrient management plans for farms in Lancaster and Chester Counties. Project will support farmers interested in agricultural best management practices by removing a barrier to implementation and incentivizing the installation of forest buffers.

Little Mahanoy Creek Headwaters Restoration Plan Development (PA)

Grantee: Schuylkill Conservation District

Grant Amount:.....\$50,000

Matching Funds:.....\$10,000

Total Project:.....\$60,000

Develop a detailed watershed restoration plan for the headwaters of Little Mahanoy Creek Watershed. Project will provide a blueprint for managing stormwater in the watershed, restoring habitat in the headwaters, and improving water quality to protect the unimpaired downstream sections where trout are reproducing naturally.

Expanding Nutrient Management Across the Headwaters of the Chesapeake Bay (NY, PA)

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

Grant Amount:.....\$500,000

Matching Funds:.....\$220,000

Total Project Amount:.....\$720,000

Expand Nutrient Management Planning efforts to improve water quality across agricultural and urban landscapes within the Headwaters of the Chesapeake Bay watershed in New York and Pennsylvania. Project will develop agricultural nutrient management plans to improve nitrogen and phosphorous management on farmland and urban nutrient management plans to minimize adverse environmental effects on high risk and priority urban areas.

Assessing Opportunities for Mill Creek Riparian, Floodplain, and Stream Restoration (PA)

Grantee: American Rivers

Grant Amount:.....\$49,955

Matching Funds:.....N/A

Total Project Amount:.....\$49,955

Identify viable opportunities for riparian and floodplain restoration and dam removal in Mill Creek in Lancaster, Pennsylvania. Project will look at the causes of impairment and sources of sedimentation to identify how dam removal and floodplain restoration work could align with current stormwater management practices in order to holistically restore watersheds and reduce sediment pollution to the Chesapeake Bay and its tributary rivers and streams.

Developing a Watershed Action Plan for Franklin County (PA)

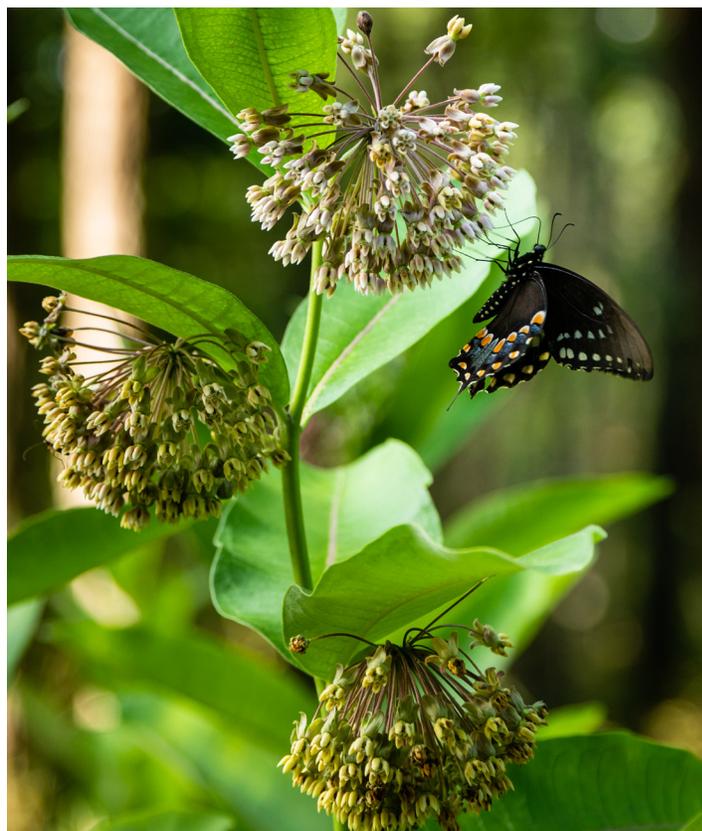
Grantee: Franklin County Conservation District

Grant Amount:.....\$50,000

Matching Funds:.....\$55,500

Total Project Amount:.....\$105,500

Develop a Priority Watershed Action Plan for Franklin County to determine sources of nutrients and sediment in seven subwatersheds in Franklin County, Pennsylvania. Project will identify best management practices for implementation to assist with the pollution reduction targets and water quality improvement goals identified in Franklin's Countywide Action Plan.



Conservation landscaping | Credit: Parsons