

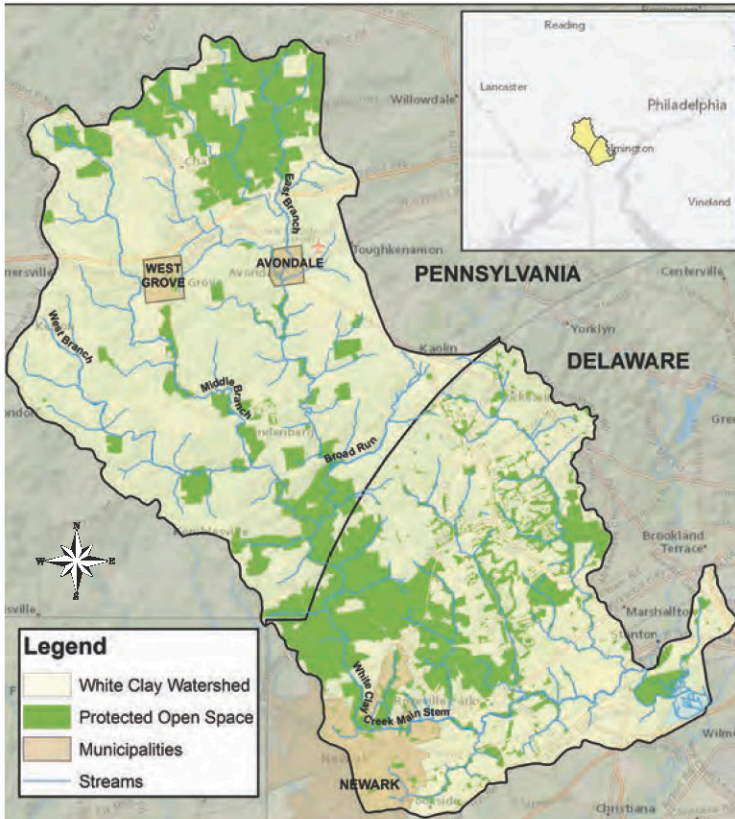


# White Clay Creek National Wild and Scenic River

Steering Committee Update 2023

Promoting clean water through outreach,  
restoration, and land protection.





## Partnership Wild and Scenic Rivers

The 1968 Wild and Scenic Rivers Act calls on the nation to preserve select rivers in free-flowing condition. Outstanding rivers are chosen on the basis of their scenic, recreational, ecological, geologic, historic or cultural value.

Most National Wild and Scenic Rivers flow through federal lands, but Partnership Rivers flow through privately held lands or lands owned by local or state governments. The National Park Service provides funds and staff assistance to communities and local and state representatives to protect and manage these rivers for the benefit and enjoyment of present and future generations.

White Clay Creek was designated a National Wild and Scenic River by an Act of Congress signed into law by President Clinton in October, 2000. In 2014, nine additional stream miles were added to the original designation of 190, bringing the total miles protected under the Act to 199 miles.

## Welcome to the White Clay Creek National Wild and Scenic River Program Update. The Watershed Steering Committee presents our 2023 accomplishments to our watershed partners, legislators, and community.

In response to the community-led research conducted with River Network and community advocates in 2022, the Avondale Borough Greening Plan was finalized in May 2023. The plan prioritizes stormwater control measures incorporating strategies to improve street drainage with overlapping community benefits. The plan focused on projects such as tree trenches that could be incorporated with street and sidewalk improvements and provide much-needed shade, porous pavement retrofits for lesser-used streets and parking areas that could store and infiltrate water below the surface, and rain gardens in public parks that could be incorporated with gathering spaces.

An initial project from the plan, located in Avondale's Pomeroy Park, was selected for implementation. Unfortunately, this project was abandoned due to challenges with certain deed restrictions, prompting a shift to the Garage Youth Center, a community hub and Red Cross-certified flood shelter in the town center. The new project will feature a permeable basketball court to infiltrate stormwater from the center's expansive roof. The project will improve street drainage and water quality and provide an improved recreational space for the community. This project, supported by a Pennsylvania Department of the Environment Growing Greener Grant, should be completed by 2026.

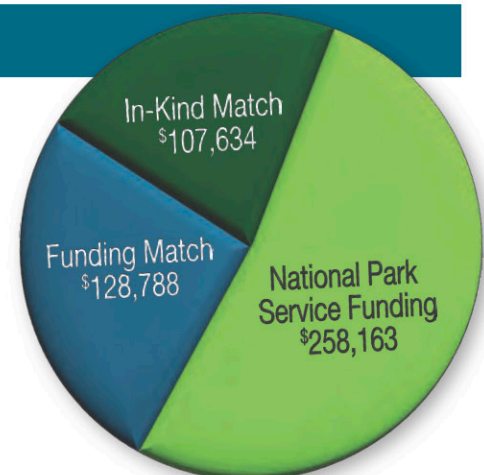
A larger rain garden campaign on private lands within the town was also explored in 2023 with the assistance of a National Parks Service Fellow. Due to the lack of stormwater infrastructure in the borough, additional

## White Clay Wild and Scenic Maximizes Federal Dollars!

Like all Partnership National Wild and Scenic Rivers, we leverage National Park Service funding with in-kind contributions from state, county, local governments, partner organizations, and the community.

In 2023, White Clay partners leveraged \$258,163 of National Park Service funds with \$236,423 cash and in-kind services. In other words, every dollar of National Park Service funding spent was leveraged with an additional \$0.92 of outside match and volunteer services.

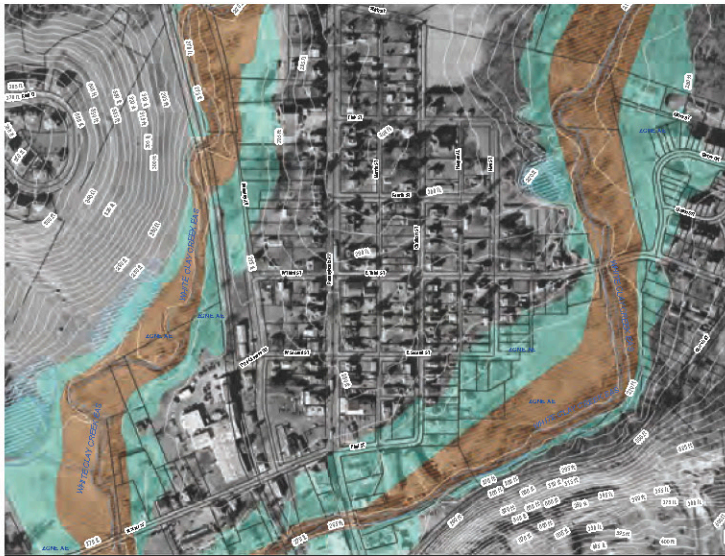
A special thanks to the following donors of monetary assistance provided to the White Clay Wild and Scenic Program in 2023: National Park Service (\$210,000), PA DEP (\$52,374), NFWF (\$36,296), Veolia (\$13,498), Public Contributions (\$9,503), Dockstader Foundation (\$7,500), Christina Watersheds Municipal Partnership (\$6,000), other cash contributions (\$2,629) and approximately \$107,634 in voluntary contributions!





opportunities were explored outside of the scope of the Greening Plan to incorporate more green spaces on privately owned land to infiltrate stormwater runoff. This approach adopts a 'treatment train' effect, attempting to capture stormwater at its source (roofs, driveways, and walkways) before allowing it to run off downstream to the practices identified in the plan.

Finally, the Upper East Branch Watershed Restoration Plan, a study of the 12 square mile area that drains to Avondale Borough, was also completed in 2023. This plan identified several priority projects at the parcel level for water quality and fish and wildlife habitat improvements that could reduce stormwater impacts. In November, a public meeting was held to introduce the plan to borough officials, residents, and landowners identified in the plan.



Area where two creeks meet in Avondale. 100-year flood plain seen in blue.

It is important to note that all these efforts, both within and upstream of the borough, seek to mitigate localized flooding while enhancing overall watershed health. Much of the area above Avondale is protected land, and several existing on-the-ground restoration projects offer promising prospects for further improvement over time. However, recognizing Avondale's susceptibility to flooding due to geographic factors, 30% of its acreage lies in the 100-year floodplain; long-term solutions should involve relocating residents from flood-prone areas and examining future land use proposals for their impact on downstream flooding.

Looking ahead to 2024, we hope to complete a comprehensive flood model for the entire watershed. This will provide a more detailed representation of flood behavior. Climate projection data will be incorporated into the model to simulate future flooding scenarios, and various areas within the watershed will be assessed for suitability for implementing green stormwater infrastructure (GSI). The identified GSI areas and existing land use policies, zoning regulations, and stormwater management ordinances will be evaluated for their effectiveness in reducing flood risk under current and future climate conditions. The overall goal is to enhance climate resiliency in the White Clay watershed.

## Catch the Rain

The Catch the Rain Program helps you create a more sustainable and beautiful environment on your property by supporting the voluntary installation of various eco-friendly features like rain gardens, riparian buffers, and smaller-scale practices such as planting trees, conservation landscaping, and setting up rain barrels. A standout project from 2023 (see photos below) involved a yard conversion into two rain gardens designed to capture and infiltrate rainwater from their roof, driveway and overland flow that was otherwise infiltrating their basement. Like many gardens with native plants, they attract colorful birds and butterflies and add to the natural beauty of the landscape. The best part is while they're enhancing your surroundings, they're also doing important work by filtering and managing stormwater right where it falls.



Since the program's inception, 179 residential and municipal applicants have installed a total of 111 practices. The costs for these projects amount to \$249,705, funded through a combination of federal Wild and Scenic funds, other grants, and landowner costs. In fact, every dollar of federal funds spent to date on the Catch the Rain Program has been matched by \$5.14 of outside funding.



## Stream Watch

- Monitored 30 stream sites to analyze fecal indicator bacteria.
- Monitored 6 stream sites year-round to gather data on conductivity, temperature, nutrients, and chlorides.
- Expanded sampling support and microbial source tracking along a select tributary in the city of Newark to broaden our understanding of contributing fecal pollution sources.
- Provided year-long field experience to two graduate students at the University of Delaware and one undergraduate student through a summer internship with Stroud.
- Contributed water quality data to both states for their biannual integrated water assessments.
- Advised a University of Delaware Student on her Master's analyzing 4 of our year-round water quality sites.

## Community Outreach

- Facilitated the collaboration of municipalities, government agencies, and other stakeholders to restore and protect the water quality of streams in the White Clay Creek watershed.
- Hosted four meetings and/or workshops in partnership with the Christina Watersheds Municipal Partnership.
- Hosted two 'Catch the Rain' workshops.
- Presented 'Developing an Equitable Community Greening Plan for Avondale Borough Using Community-Led Research' at the Chester County Planners Summit and the Partnership Wild and Scenic Rivers Monthly Meeting.
- Presented 'Green Infrastructure: Managing Stormwater in a Sustainable Way' at the Chester County Association of Townships.
- Presented 'Nature Based Solutions to Stormwater to address Avondale Community Led Research' to the 15 students and 3 educators at the Chester County Intermediate Unit Migrant Education Summer School.
- Met individually with 22 landowners to discuss nature-based practices they can implement on their property.
- Provided 400 Avon Grove Intermediate School 4th grade students, 20 middle and high school students from the Chester County Intermediate Unit's Migrant Education Summer Program, and 10 middle school students from Mighty Writers El Futuro with transportation and funding to attend hands-on watershed science programs with Stroud Water Research Center.
- Produced content for the whiteclay.org website, municipal newsletters, Chester County Press, and social media outlets.

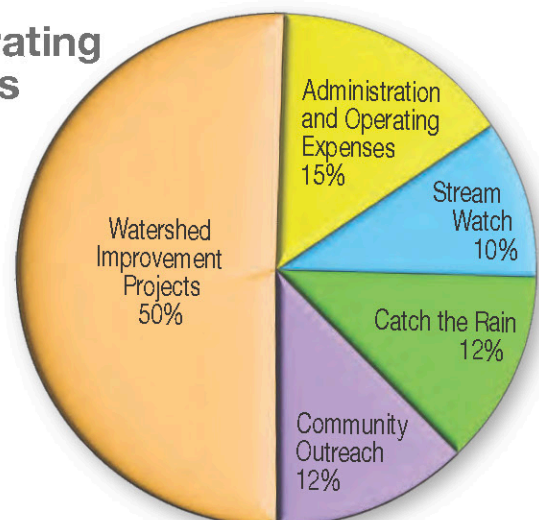


Volunteer assisting with maintenance of a streamside buffer in Franklin Township. Photo courtesy of Paul Overton.

## Watershed Improvement Projects

- Provided land stewardship services at multiple watershed locations.
- Helped identify opportunities to support land preservation efforts throughout the watershed.
- Completed one year of research identifying potential barriers to migratory fish passage in the lower White Clay Creek.
- Provided technical and grant management support to Chester County Master Watershed Stewards to support the installation and stewardship of a 2-acre riparian buffer and live stake nursery in New Garden Township.
- Assisted the National Park Service with monitoring water resources proposals and permit applications for potential impacts to White Clay Creek.

## 2023 Operating Costs







# White Clay Creek Fest

Saturday May 4<sup>th</sup> 12:00 – 4:00 p.m.

**Carpenter Recreation Area,  
White Clay Creek State Park, Delaware**

Celebrate your local Wild and Scenic River at the Annual White Clay Creek Fest on May 4<sup>th</sup>! Explore hiking trails, visit local organizations, learn about our natural, recreational, historical, and cultural resources, and try your hand at fly-casting! The first 150 attendees will receive a FREE reusable water bottle commemorating Creek Fest courtesy of Veolia.

Co-hosted by White Clay Creek State Park and White Clay Creek Wild and Scenic River Program.

**For More Community Events Visit:  
[www.whiteclay.org/new-events](http://www.whiteclay.org/new-events)**

The Watershed Steering Committee, with our local and state partners, is charged with promoting the long-term protection of the White Clay Creek watershed and its resources in Pennsylvania and Delaware through implementing the Watershed Management Plan. The Program Director position was added in 2002 to assist the Committee in project and administrative duties.

The White Clay Creek watershed contains significant natural areas and outstanding values, enabling it to achieve its federal designation as a Wild and Scenic River. The Wild and Scenic Rivers Program supports projects that protect the watershed through community outreach and education, open space preservation, restoration, and research.

## White Clay Creek Wild and Scenic Steering Committee Members:

Ed O'Donnell, *Delaware Co-Chair, White Clay Fly Fishers*

Rachael Griffith, *Pennsylvania Co-Chair, Chester County Planning Commission*

Don Peters, *Outgoing Pennsylvania Co-Chair, New Garden Township*

Thomas Zawislak, *President, White Clay Watershed Association (WCWA)*

David Hawk, *Treasurer WCWA, New Garden Historical Commission*

Martha Narvaez, *University of Delaware Water Resources Center*

Douglas Janiec, *Sovereign Consulting Inc./WCWA*

Andrea Withers, *WCWA*

Aileen Parrish, *London Britain Township*

John Goodall, *Brandywine Conservancy*

Rick Mickowski, *New Castle County Conservation District*

Jennifer Egan, *University of Maryland Environmental Finance Center/WCWA*

April Schmitt, *London Britain Land Trust, Friends of White Clay Creek Preserve (PA)*

Kate Raman, *Natural Lands*

Cori Trice, *Chester County Conservation District*

Kelley Dinsmore, *City of Newark*

Tracy Surlles, *New Castle County Special Services*

Laura Lee, *White Clay Creek State Park*

Melinda Daniels, *Stroud Water Research Center*

Shane Morgan, *Program Director*

Lucy Dinsmore, *Catch the Rain Coordinator*

Sarah Bursky, *National Park Service, Wild and Scenic Rivers Program, Mid-Atlantic Region*



For information on all of our projects and upcoming events visit our website [www.whiteclay.org](http://www.whiteclay.org) or find us on:



**WHITE CLAY CREEK**  
**National Wild & Scenic River**

*Ours to Enjoy. Ours to Protect.*

PO Box 10, Landenberg, PA 19350




[www.whiteclay.org](http://www.whiteclay.org)



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White Clay Creek in Summer, Shane Morgan