

# White Clay Creek National Wild and Scenic River

Steering Committee Update 2022



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

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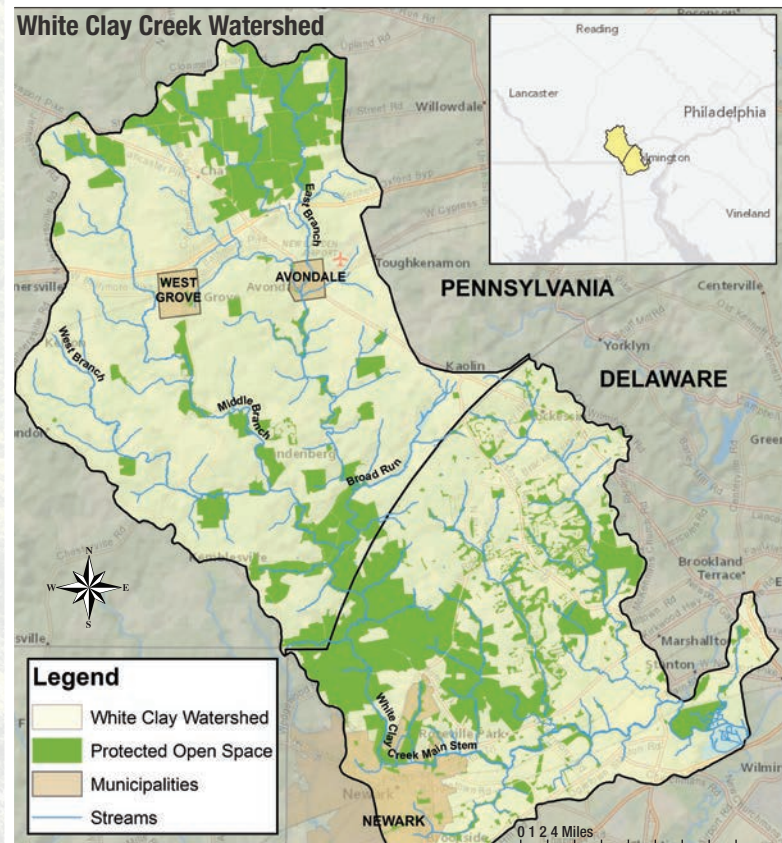
# Welcome to the White Clay Creek National Wild and Scenic River Program Update. The Watershed Steering Committee presents our 2022 accomplishments to our watershed partners, legislators and community.

## Watershed Improvement Projects

In 2022 the Wild and Scenic Program partnered with community leaders in Avondale Borough to engage residents impacted by recurring flooding as part of an effort to inform a Greening Plan with funding support from the National Park Foundation. The borough, which sits at the confluence of the upper branches of White Clay Creek, is subject to frequent flooding and has had two emergency evacuations in the past two years. The focus of this effort was engaging community members, largely Hispanic, in identifying solutions to mitigate the impacts of flooding, while also addressing other needs related to parks, open space, safety, and affordable housing.

Utilizing River Network's Community-Led Research Toolkit, the team met biweekly to develop an outreach plan and survey specifically aimed at gathering information from the community so that their needs and priorities could be incorporated into the plan. Students who attend The Garage (a community youth center located in the borough) assisted with administering the survey to residents. Data was collected from 104 respondents and analyzed to facilitate what the key messages were from the community.

Demographic information helped us see that flooding impacts are not equally distributed (impacting the most vulnerable more heavily). Moreover, the Hispanic population reported more home evacuations, more negative impacts to their personal finances, and more vehicular damage. They also noted impacts to mental health from frequent flooding more than English speaking residents.



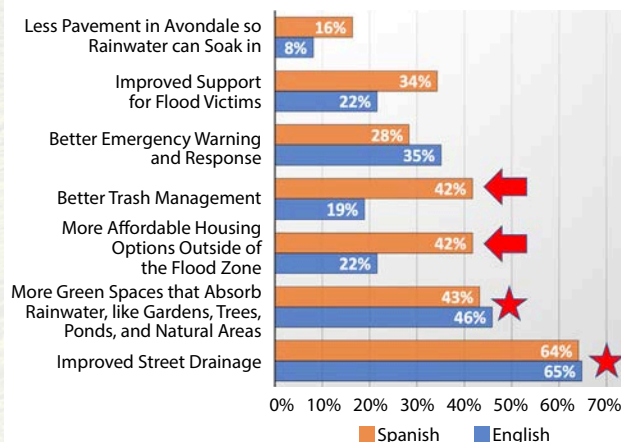
## Partnership Wild and Scenic Rivers

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.

## Preferred Flood Mitigation Strategies by Respondents' Primary Language



Additionally, the survey results indicated a need for attainable housing, preferably within a 5-mile radius of Avondale Borough, as well as the desire for a more walkable community with safer crosswalks, more community gardening space, more shade trees, and more green spaces. While much of the information gleaned for the survey will be incorporated into the greening plan, additional information learned outside of the scope of this project about housing needs and public safety is being shared with organizations, agencies and elected officials who can better address these issues.

Another output from the plan is a demonstration rain garden to be installed in the borough. The rain garden, located in an area accessible by foot for most residents, will collect stormwater from a 3.2-acre drainage area. The rain garden will incorporate an adjacent gathering space with seating and shade trees. Additional funding for the demonstration project was secured from a PA DEP Growing Greener Grant and design and construction will begin in 2023. Other projects identified in the greening plan will be pursued as funding becomes available to help reduce nuisance flooding while overlapping other community needs. Community survey results can be found on our website at <https://whiteclay.org/projects>.

A watershed assessment and restoration plan for the 12 square mile drainage area above Avondale, funded via the National Fish and Wildlife Foundation, is also in development with an expected completion date in 2023. This plan will help identify additional restoration projects outside of the 300-acre borough that promote increased flood storage and improved habitat for fish and wildlife.

Finally, two riparian buffers were installed in 2022 with funding support from two separate Pennsylvania Association of Conservation Districts (PACD) multifunctional buffer grants. A 5.5-acre riparian buffer planted on private, protected land in Franklin Township, and a 1.4-acre buffer and 7000 square foot live stake nursery installed on public, protected land in New Garden Township. The New Garden Township planting was part of a Master Watershed Stewards project that will eventually provide 'lives stakes' for other restoration projects throughout the watershed. Live staking is the process of taking cuttings from specific native species that can then be replanted along stream banks and eventually grow into new trees. Live staking is a cost effective and efficient way to establish stream bank plants to help prevent further erosion.



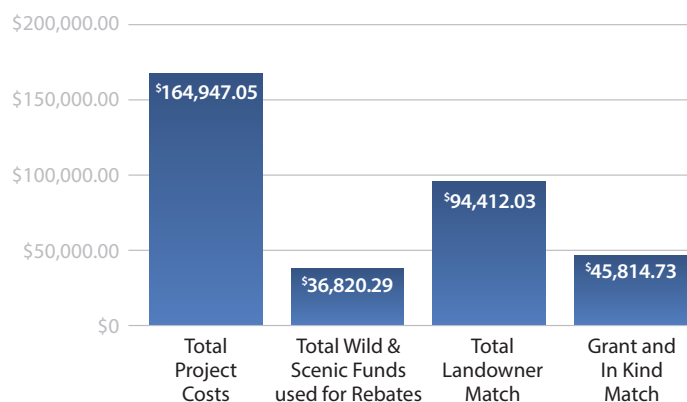
Residential property before (top) and after (bottom) conservation landscaping and rain garden installed in spring of 2022.

## Catch The Rain

The Catch the Rain Program supports the voluntary installation of rain gardens, riparian buffers, and several small-scale residential practices such as tree plantings, conservation landscaping and rain barrel installations. A project we would like to highlight from 2022, implemented on private property in New Castle County, DE, involved converted a large portion of lawn to a more functional area of native plants including a rain garden that captures rainwater directly from the adjacent roof. While the property itself benefits from being beautified, these projects also support healthier habitat and improved water quality.

Since the program's inception, there have been 153 residential and municipal applicants installing a total of 89 practices. The costs for these projects amount to \$165,000, 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 \$4.46 of outside funding.

### Catch the Rain Program Expenses (2017-2022)



Team of Master Watershed Stewards (MWS) and MWS Program Coordinator (far right) at the New Garden Township planting.

## Land Preservation

- Provided land stewardship services at multiple watershed locations to protect and promote the establishment of streamside buffers and other nature based practices.
- Helped identify opportunities to support land preservation efforts throughout the watershed.
- Provided match towards the easement and acquisition of two properties totaling 112 acres in New Garden Township.



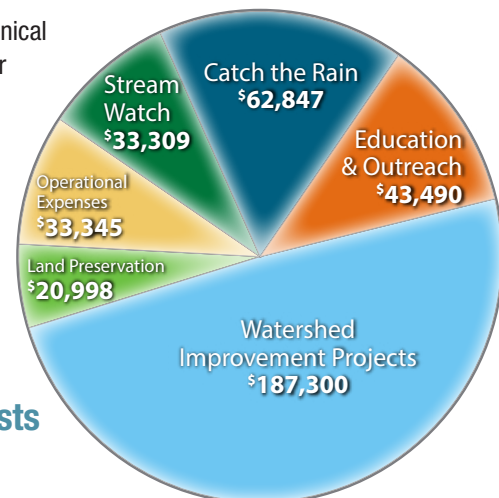
New riparian buffer planting in Franklin Township.

## Community Outreach & School Programs

- 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 a Lawn to Meadow Conversion Workshop for watershed municipalities in partnership with the Christina Watersheds Partnership.
- Presented 'Wild and Scenic Rivers in the Face of Climate Change' at a free educator workshop in partnership with Stroud Water Research Center.
- Presented the Catch the Rain Program at the Octoraro Watershed Association Annual Meeting.
- Presented the Community-led Research project to the Department of Interior Urban Waters Team at their Quarterly Meeting in June.
- Presented on Community-led Research project at the 10th Annual Delaware River Watershed Forum.
- Met with 22 landowners to discuss nature-based practices they can implement on their property.
- Produced content for the whiteclay.org website, municipal newsletters, Chester County Press, and social media outlets.
- Provided 100 students with transportation funding to attend hands-on watershed science programs at Stroud Water Research Center.

## Watershed Monitoring and Projects

- 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.
- Provided planning and funding support for dam removals.
- Initiated research to identify potential barriers to migratory fish passage in the lower White Clay Creek.
- Provided @300 trees for a volunteer tree planting at Franklin Preserve.
- Provided planning and technical support to a team of Master Watershed Stewards.
- Assisted National Parks Service with monitoring water resources proposals.



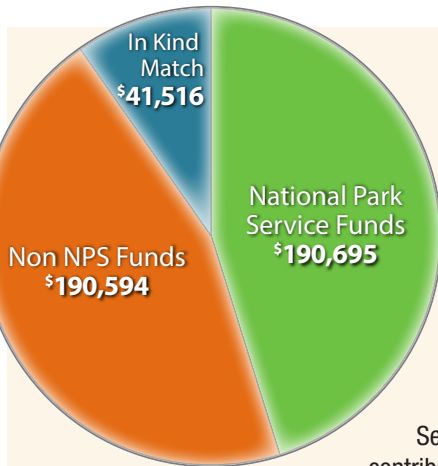
## 2021 Operating Costs

## 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 2022, White Clay partners leveraged \$190,695 in federal funds with \$232,110 cash and in-kind services. In other words, every dollar of National Park Service funding spent was leveraged with an additional \$1.22 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 2022: National Park Service (\$210,000), Veolia (\$9558), Public Contributions (\$8065), Christina Watersheds Municipal Partnership (\$6,000), and approximately 1322 hours of volunteer time valued at \$41,516.





# White Clay Creek Fest

Celebrate your local Wild and Scenic River at the annual White Clay Creek Fest! Explore hiking trails, learn the basics of fly-fishing, visit with local organizations and learn about our natural, recreational, historic and cultural resources!

The first 150 attendees will receive a FREE reusable water bottle commemorating Creek Fest courtesy of Veolia.

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

**Join us Saturday, May 6<sup>th</sup> • Noon-4pm**  
**White Clay Creek State Park - Carpenter Recreation Area**

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 the implementation of the Watershed Management Plan. The Management Plan Coordinator position was added in 2002 to assist the Committee in project and administrative duties.

The White Clay Creek watershed contains some significant natural areas and outstanding values which enabled the watershed 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, New Castle County
- Don Peters, 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
- Kristin Travers, Delaware Nature Society
- Martin Wells, 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
- Rachael Griffith, Chester County Planning Commission
- Cori Trice, Chester County Conservation District
- Kelley Dinsmore, City of Newark
- Tracy Surles, New Castle County Special Services
- Laura Lee, White Clay Creek State Park
- Melinda Daniels, Stroud Water Research Center
  
- Shane Morgan, Management Plan Coordinator - Staff
- Sarah Bursky, National Park Service, Wild and Scenic Rivers Program, Mid-Atlantic Region

**For information  
on all of our  
projects and  
upcoming events:**



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



**WhiteClayWildandScenic**



**WhiteClayWS**

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

*Ours to Enjoy. Ours to Protect.*

PO Box 10, Landenberg, PA 19350



**White Clay Creek**  
**National Wild and Scenic River**

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