

QUARTERLY/ANNUAL PERFORMANCE REPORT NARRATIVE

Cooperative Agreement #: CA_P13AC01266
Award Recipient: White Clay Watershed Association
Project/Program Title: Wild & Scenic River Funding
Date: January 4, 2018
Period Covered by Report: October 1, 2017- December 31, 2017
Funds expended during this reporting period: \$40,242.11
Submitted by: Shane Morgan, Management Plan Coordinator
Submitted to: National Park Service – Partnership Wild & Scenic Rivers

Summary of work performed during the period covered by the report:

Administration (\$20,749.30)

Continued participation in watershed wide meetings throughout the quarter: Christina Watershed Municipal Partnership, Christina Basin Task Force, Christina Healthy Water Fund, individual meetings with various stakeholders, and occasional Board of Supervisors meetings. Conducted White Clay Steering Committee Quarterly meeting and maintained and updated program fiscal records and worked with committee members to spend down remaining funds in current 5-year contract. Continued to correspond and meet with White Clay UD WRA student intern, Jillian Young to implement work plan.

Networked with other new partners including Penn Future, River Network, the Clean Water for Delaware Alliance, the Delaware River Watershed Coalition, DelDOT, and New Castle County. Followed up on land development projects in the watershed including the 419 Papermill Road Subdivision Proposal, and the Papermill Road/DelDOT culvert project in New Castle County.

In addition to professional services of the management plan coordinator and basic operating expenses, this quarter expenses includes payment of our annual contract with University of Delaware, Water Resources Center for technical and graduate student assistance for the previous contract period of Oct. 1, 2016-Sept 30, 2017 (\$8000).

Education (\$3,863.90)

School Programs: Program costs for 27 Newark High School students to attend a watershed science field trip to Stroud Water Research Center in March 2018. Transportation costs for 400

Avon Grove Intermediate students to attend a watershed science field trip to Stroud Water Research Center over the course of a week in November 2017.

Municipal Outreach:

Conducted a review of TMDL plans submitted by White Clay Creek MS4 Municipalities. Prepared materials for Villanova Stormwater Summit Presentation, attendance at CWMP team meetings. Continued conversations municipal engineers and staff regarding PA-DEP permit reviews and timeline, and continued exploration of potential opportunities for collaboration (such as BMP maintenance and inspection). Working on formalizing the Christina Watershed Municipal Partnership and setting the groundwork for the next round of permits so we can be proactive.

Community Outreach:

- Website stats: 5955 unique visitors, 7182 page visits, and 12.5k page views in 2017 to date.
- Maintained social media and website updates and E-mail communications.
- Contributed article to the London Grove Township Newsletter about our Environmental Education Awards.
- Sent out Creek Fest Save the Date to exhibitors, updated food vendor forms, created task list, contacted former event sponsors, and selected water bottles.

Restoration (\$ 15,628.91)

Stream Monitoring Projects:

- Purchased and installed a new mayfly sensor with turbidity probe for Mill Creek at Hickory Hill Development. Visited all three sensor sites to do an onsite training new UD intern, Jillian Young, on bacteria sampling protocol and sensor management. Purchase waders and cell service plan for new sensor.
- Shane is working with Andrew Homsey to put together an ARCGIS map of the watershed with all monitoring sites and interchangeable layers. This will help track what we are doing in the White Clay and be accessible to the public.
- Several working meetings with Rob Tuttle (DNS volunteer, retired software designer) to develop software using the open source R that meets the needs of our monitoring efforts. We are still working out the details, but have a version up and running that we are now trialing with the Mayfly sensor data. Kristen Travers (DNS) and Kim Hachadoorian (TNC) and myself, are working with Rob to set the specific parameters for our watersheds (Red Clay, Brandywine, and White Clay). We plan to share our efforts and outputs with other watershed organizations and citizen science groups.
- Completed initial Microbial Source Tracking (MST) for both the PA and DE sites. Taking bi-monthly samples to Stroud year-round at three sensor sites.
- Continue to manage data submitted by volunteers and refine data entry templates.

- Continued working on basic framework for overall stream monitoring plan and goals.
- Met with Jinjun Kan (Stroud Microbiologist) and Kristen Travers (Delaware Nature Society) to review data and start planning next steps in bacteria monitoring sampling and MST. Met with Kelley Dinsmore (City of Newark) to see how our sampling could help them with their bacteria TMDL.

Catch the Rain Program:

- 5 site visits and corresponding reports developed this quarter.
- 2 applicants conducted work without seeking rebates (invasive management and creek side and road side plantings)
- 2 of the 5 visits/reports resulted in pending projects (met with contractors and currently reviewing proposals)
- Met with Kelley Dinsmore to discuss the City of Newark's new Storm Water Utility and the grant program they are developing for City residents. Residents can apply for up to \$5000 to implement green storm water practices on their properties. We are trying to determine how to best support each other with both these initiatives.

Franklin Preserve Reforestation and Land Stewardship:

- Greg Gagliano (Red Tail Restoration) continued with invasive species management and tree tending throughout the fall. Met on site to look at tree survivorship and meadow management with Jeff Eastburn (Park Manager), Rob Daniels (Brandywine Conservancy), and Greg Gagliano. A formal assessment was not conducted due to the high presence of pollinators in and around the tubes. They will do an assessment in the spring, but the invasive species removal efforts appear to be working and the tree survivorship looks good. The park manager was pleased and we agreed upon a no-mow approach to management for now since the meadow is fairly well established with little to no invasive pressure.

Land Preservation (\$0)

Update on current Natural Lands Trust Projects:

- St. Anthony's This is currently pending. The church is now looking to sell the camp as it is a financial burden to the church, but they would still like to see it continue and are working through some options. The Wild and Scenic Committee reserved \$5000 of FY16 funds towards the conservation and trail easements on the 137-acre property in New Garden Township expected to close this year. The total cost of this project is 1.3 million.
- Reynolds: This project closed on December 28, 2017, but we have not received the bill as of this report. The Wild and Scenic Committee reserved \$7000 of FY17 funds towards the conservation easement on the 178-acre property in New Garden Township. The total cost of this project is 2.3 million.

- Christie: This is currently on track to close in early 2018. The Wild and Scenic Committee reserved \$3000 of FY16 funds towards the conservation and trail easements on the 4.2-acre property in New Garden Township. The total cost of this project is \$67,000.
- Two other potential projects in New Garden Township. A 45-acre farm that is just in the initial stages of negotiation and therefore not likely not close before the September spending deadline, and a 2-parcel 15-acre piece of land along Walnut Run that she feels could close quickly if it were to move forward. She will send out more information on each new project to the committee as they progress.

Update on current Brandywine Conservancy Projects:

- John Goodall (Brandywine Conservancy) is still working with the Healthy Water Fund Committee and the City of Newark on using the Hutchinson property (in Penn Township, PA) to test out the idea of a Delaware municipality doing work in a Pennsylvania municipality. The conservation plan has been improved to go above and beyond what is required to meet regulatory obligations by including a riparian buffer area and management of said buffer. The Wild and Scenic Committee initially approved and reserved \$2500 in support of a grassed waterway on the Hutchinson but there is a potential need for additional funds to help with the new buffer and the management of the installed planting.