

QUARTERLY/ANNUAL PERFORMANCE REPORT NARRATIVE

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| Cooperative Agreement #: CA_P13AC01266 |
| Award Recipient: White Clay Watershed Association |
| Project/Program Title: Wild & Scenic River Funding |
| Date: January 4, 2016 |
| Period Covered by Report: October 1, 2015- December 31, 2015 |
| Funds expended during this reporting period: \$12,036.42 |
| Submitted by: Shane Morgan, Management Plan Coordinator |
| Submitted to: National Park Service – Partnership Wild & Scenic Rivers |

- 1) **Summary of work performed during the period covered by the report:** This quarter work focused on locating new restoration projects working willing landowners and the Brandywine Conservancy. Refining our bacteria monitoring program to locate potential sources for targeted restoration with Stroud and University of Delaware WRA, the Chester County Conservation District, and our water quality intern, Patrick Herringslack. Installation of a 1250 foot riparian buffer at New Garden Park with LandStudies, volunteers, as part of our PA DEP growing greener project with New Garden Township. We also strengthened our web presence with an updated website hosted on Squarespace and a professional email newsletter service (mail chimp).
- 2) **Progress Achieved in Accomplishing Program Goals & Objectives**

Objective/Task #1 Cooperative Agreement: Plan and implement the enumerated goals in the White Clay Creek Watershed Management Plan with county, state and federal agencies, watershed municipal governments and non-government organizations with watershed conservation interests.

Deliverable/Planned Outcome: Partner with municipalities on installing and maintain existing and new green infrastructure.

Actual 1: Planted native woody shrubs and trees (some with deer protection) along a 1250 foot stretch of Lamborn Run running through New Garden Township Park as part of our Growing Greener Grant Project.

Deliverable/Planned Outcome: Provide a watershed education experience to 4 school groups during the year.

Actual 1: Three schools signed up for Spring Programs at Stroud.

Favorable Development: Working with one of these schools (Newark H.S.) to implement better riparian habitat along the White Clay main stem in Newark at the former Curtis Mill site. Phase 1 was planted in late November with 30 students and accompanying adults. Phases 2 and 3 will occur in 2016 with this group of students and teacher as a supplement to part of their educational programing. Materials were purchased using the White Clay Restoration Fund.

Objective/Task #2 Cooperative Agreement: Develop and produce interpretive exhibits, publications, other media and programs that interpret the resources of the White Clay Creek and watershed, with priority given to updating the website and maintaining an active social media presence.

Deliverable/Planned Outcome: New website design. COMPLETED

Deliverable/Planned Outcome: Provide quarterly articles to watershed municipalities (New Garden Township and London Grove Township) promoting watershed stewardship and highlighting watershed projects. Continue posting to Whiteclay.org blog.

Actual 1: Assisted New Garden Township with their Stormwater messaging in a mailing going out to all Township Residents this January 2016. Continue providing education materials and articles as requested to townships.

Actual 2: Edited and published a blog post for the City of Newark and the White Clay Website entitled, *'Building Partnerships Through Community Greening.'* (<http://whiteclay.org/blog/building-partnerships-through-community-greening-in-newark-delaware>)

Objective/Task #3 Cooperative Agreement: Promote the long-term protection of the White Clay Creek watershed and its outstandingly remarkable resources.

Deliverable/Planned Outcome: Attend community events to increase general awareness of and appreciation for the natural, cultural and recreational resources of the watershed and expand audiences.

Actual 1: Assisted with logistic and presented information about the Wild and Scenic Program at the White Clay Watershed Association Annual Meeting.

Favorable Development: Met Thalia Pappas (Delaware Department of Agriculture) at the WCWA annual meeting. She is responsible for creating Delaware's draft plan in response to the call for states to develop managed Pollinator Protection Plans. We had a follow up meeting discussing White Clay projects and she would like to meet with the Committee to determine how we might partner with them on creating and documenting quality pollinator habitat as it relates to some of our projects.

Actual 2: Started planning and outreach to exhibitors, sponsors and vendors for the 2016 Creek Fest.

Actual 3: Attended a private meeting with DRBC officials, Artesian officials, Jan Bowers (CCWRA), Jerry Kauffman (UD WRA), and Denis Newbold (Stroud Scientist) regarding the proposed monitoring plan of the Artesian Broad Run Well in New Garden Township and submitted follow up comments to the DRBC. DRBC made several positive changes and issued a revised monitoring plan, to the docket, which was approved at the DRBC public meeting held in December 2015.

Objective/Task #4 Cooperative Agreement: Provide technical support to NPS for planning, education, outreach and research activities as they relate to the White Clay Creek watershed.

Actual: Continued to assist/facilitate conversations between NPS and the Brandywine Conservancy as they navigate the Section 7 review process for the Moorehead equestrian farm. This project will include 100'-300' riparian buffers along Exceptional Value waters of the White Clay on 19 acres of horse farm. It involves 3 remove and replace stream crossings that will be reviewed by NPS. This project was approved.

Objective/Task #5 Cooperative Agreement: Support the needs and goals of the White Clay Creek Steering Committee.

Actual: Attended multiple meetings and conferences with other non-profits and government entities representing the interests of the White Clay Steering Committee and White Clay Management Plan, including Water Fund Planning meetings and Master Watershed Steward planning meetings.

Favorable Development: Met several times with Ellen Kohler (The Nature Conservancy) regarding the potential Healthy Water Fund (research funded by William Penn). Instead of targeting the entire Christina Basin, they are currently targeting White Clay as the pilot watershed for this fund. I was also asked to sit on the Steering Committee for the First State National Park new Volunteer Stream Monitoring Program. This is a pilot program that could be adapted to the White Clay.

Objective/Task #6 Cooperative Agreement: Work with the Water Resources Agency, Natural Lands Trust, and the Brandywine Conservancy to provide GIS analysis, technical assistance and recommendations to the NPS, watershed counties and municipalities, other non governmental organization and the State of Delaware and the Commonwealth of Pennsylvania concerning the management of river resources.

Deliverable/Planned Outcome: Continued to work with WCWA partners at the UD WRA to research and publish a 15-year progress report for the White Clay Creek Wild & Scenic River Program, including a municipal ordinance review.

Actual: Reviewed and edited two more drafts of report. Met with Martha and Andrew (UD WRA) to go over suggested content edits and additional mapping needs. Met with Derek Stoner (Delaware Nature Society) to update bird status in the White Clay for the final report. Final draft is being formatted at WRA for distribution to committee in January.

Deliverable/Planned Outcome: Continued to work with Brandywine Conservancy of finalizing riparian gap analysis for the White Clay.

Favorable Development: Working with local residents in the Bella Vista community (Hockessin, DE), Brandywine Conservancy, (and potentially Stroud), to target potential restoration projects using White Clay Restoration Funds (and potential grant sources for larger scale restoration) along a large section of Mill Creek.

Actual: Initial maps completed for entire watershed. Working on creating more user-friendly maps that each municipality can use to target and implement projects.

Deliverable/Planned Outcome: Student and technical assistance from UD WRA to generate GIS maps for displays and website.

Actual 1: Generated land use maps in the surrounding catchment basins for each bacteria-sampling site in Pennsylvania. Working with CCCD to enter more detailed data not available in GIS layers.

Actual 2: Completed watershed signage report which includes map locating existing watershed signage and corresponding addresses, photos of existing condition of sign, contact information for replacements, and replacement priorities indicated. Map will be used in an effort to replace outdated, vandalized, and faded signage and keep track of new signage.

Deliverable/Planned Outcome: Hire summer intern to continue bacteria sampling at 12 sites in the Pennsylvania portion of the watershed following PA DEP sampling protocol. COMPLETED.

Favorable Development: Met with John Jackson and Matt Ehrhart (Stroud) to discuss partnering on the bacteria sampling. I am now in contact with JinJun Kan, environmental microbiologist (also at Stroud) who is looking at using our sites with the highest bacteria counts to determine the best path forward utilizing microbial source tracking.