Implementation Grant Final Reporting

Wildlands Conservancy Coplay Creek Restoration Project
2015 Final Report for Coldwater Heritage Partnership Implementation Grant

Please include the following information in your final report for your Coldwater Heritage Partnership Implementation Grant.

1. Before and after photos of the project site: Please see attached .jpegs

2. Project summary of project:

In 2011, the Coplay Watershed Assessment was developed to rank stream reaches and develop recommendations for stream restoration. Identified in the Assessment were two aging, obsolete dams on Coplay Creek that were causing habitat and water quality degradation. The dams were creating slow-moving, sediment-laden pools of water full of algae and low in suitable habitat for coldwater fish species. With help from Coldwater Heritage Partnership funds, Wildlands Conservancy was able to implement recommendations to remove the dams impacting Coplay Creek.

We completed the design and permitting necessary for dam removal through DEP. Once the approvals came through, Wildlands was able to hire a contractor to begin the construction phase of the project. Both dams were removed, restoring free-flowing conditions from the Lehigh River through the Coplay Creek. We removed tons of concrete, rebar and other large hazardous pieces of metal from the stream. Wildlands also placed material to stabilize the surrounding streambanks to prevent further erosion and degradation of habitat. This was especially important at one of the sites where the dam was causing severe erosion of the Ironton Rail Trail that runs along the creek. The attached photos show the stream before and after dam removal.

Immediately after the dams were removed, Coplay Creek began to look more like a healthy, free-flowing, natural stream. The stream at the project sites began to narrow and carve a deeper path in the stream channel. Grading along the banks created bank stability and restored flood function to allow for floodplain storage during storm events. The banks of both sites were seeded with native grasses to provide immediate cover and stabilize the newly formed banks. Once the stream and banks settled, Wildlands and community partners planted various native herbaceous species to establish a new riparian buffer.

Wildlands held a volunteer planting event and project tour to establish a native buffer and get the local community invested in the project. The event was very successful with 30 volunteers attending to learn more about the benefits of the project and to help with planting. At the final stage of this project, Wildlands worked with the landowners to develop signage to further educate the public about the benefits of dam removal and stream restoration. We installed the sign by the former dam site along the Ironton Rail Trail. The sign is visible from the trail and informs local trail users about why they are seeing a difference in the stream.

3. Did the project turnout differently than originally intended? If so, how and why?

The project turned out as intended with both dams being removed, stream banks stabilized and a native riparian buffer established.

4-6. Is your project complete? If not, what still needs completed? Detail your project monitoring plans, next phase or future projects. Detail your project operation and maintenance plans.

The project is complete and no further monitoring plans or next phases are required. We will return later in the year to check on the plantings from the volunteer event. Now that free-flowing, natural conditions have been restored to the project sites, ecological function will continue to return. The stream will continue to cut a deeper, cooler channel more suitable for coldwater species. The native plants will continue to grow and sustain suitable habitat for native terrestrial and aquatic species. There will be no continuing maintenance needs at the two sites.

7. List of partners and their involvement in the project

Wildlands Conservancy completed the bulk of the work on this project, but was aided with key partnerships. Whitehall Township and Essroc Cement Corporation were the project landowners and provided important input throughout the process. Both the Township and Essroc were involved in the design and permitting for the dam removals. Both were also involved in the construction phase of the project and were important in securing constant access for equipment during removal. The Township was vital in providing access to the stream along the Ironton Rail Trail for the volunteer planting event as well as allowing educational signage to be permanently placed on their property at the project site. Wildlands also partnered with volunteers to plant a riparian buffer with various native species.

8. Accomplishments: How will it improve the overall condition of the stream or watershed?

Riparian Projects and Natural Stream Channel Projects: How many linear feet? (for buffers be sure to count for both stream banks if applicable):

Coplay Creek is classified as a Coldwater Fishery and removing these two dams opened up more than 15 miles of unobstructed stream habitat for native species. Dams affect more than the immediate surrounding area by preventing fish passage and obstructing the

flow of nutrients. So removing two dams contributes to the overall health of that stream and the ability of fish to migrate. Coplay Creek is a direct tributary to the Lehigh River so we have added more than 15 miles of available habitat for migratory fish species in the watershed. This project restored more than 350 linear feet of stream in the immediate area of the dam removals. Approximately 200 linear feet of stream banks were stabilized, regraded, seeded and planted with native species. Now those areas may be left alone to allow various aquatic and terrestrial species to return to the newly restored habitat.

Before:

After: