

Big Run Watershed of Jefferson County Coldwater Conservation Planning Project
Final Report

The development of the Big Run Cold Water Conservation Plan was a success. Through several seasons of field work, data gathering, and community engagement a coldwater conservation plan was written. The phases of development included a public meeting held on May 8th, 2019 at the Christian Church at 7pm, which is on Church St in Big Run. Organizations that attended included the Allegheny Mountain Chapter of Trout Unlimited and several private citizens of the Big Run Watershed. Attendees were presented with the goals of the CHP development. The attendees were supportive with their feedback on happenings within the watershed, and their guidance aided with data collection. Following the public meeting, WPC started visual data collection as well as some GIS analysis. In the fall of 2019 was the first round of water quality data collection. The bulk of the visual assessment work plus the spring round of water quality data collection was planned for the spring of 2020, but with the outbreak of COVID-19, most of the plans had to be delay or modified. A slight extension of time was needed to complete the data collection phase of the project with field data still being collected over the winter of 2021. A final virtual public meeting was held on March 18th, 2021 and the same partners were in attendance. By the end of the first quarter of 2021, the Coldwater Conservation Plan for Big Run of Jefferson County was completed.

In summary, the Big Run watershed is holding its own in terms of water quality and habitat, but this condition balances on a tipping point of current conditions not changing. Overall, it offers acceptable water quality and suitable habitat for patchy populations of valued macroinvertebrate families and naturally reproducing wild brown trout. The ability of these populations to continue to exist means that land condition within the watershed must remain at its current condition at a minimum, as the amount of prime habitat to support these populations is on the lowest end of productive. Presently, sedimentation and riparian habitat degradation throughout the Big Run watershed are the largest impacts to the stream's health. Protection of existing riparian habitat and improvement of dirt and gravel road conditions would ease the impacts and could even aid in improving the populations.

Fortunately, there are a few basic best management practices (BMPs) and simple precautions that can be taken to reduce these impacts, thus improving the quality of the Big Run watershed. Raising community awareness of the wild trout populations within the watershed as well as informing landowners about sediment reducing BMPs should open the doors for implementing water quality conservation practices. The relationships developed by installing successful projects will serve as a model to continue implementing the recommendations of this plan, and lead to improved coldwater resources.

The next steps for improving the Big Run watershed should include increasing the support to conservation partners for promoting and assisting with outreach and education programs, as well as implementing some conservation BMPs. Potential projects can include the development of a youth run education program focused on water quality best management practices, as well as the introduction of a no-till and cover crops program that could include the rental use of no-till equipment and providing cover crops seed to agricultural operators willing to add cover crops into their program. Potential implementation of these practices could include the improvement of the noted antiquated fish structures and the implementation of a riparian planting project on Windfall Run. Both potential projects have been discussed with the landowners of the sites, and at the time of the completion of this plan had support from the landowners. These projects would lead to more community engagement and hopefully more projects. There is also the potential to improve the culvert on Turnip Run to meet

aquatic organism passage standards, but communication would need to take place with the local township prior to any planning. More details on these recommendations can be found within the Big Run CHP.

Partners for this project included the Allegheny Mountain Chapter of Trout Unlimited, who helped outreach to the local community about the CHP as well as provided historical details about projects that happened within the watershed and private citizens who volunteered their time to help collect visual assessment data. There were 14 hours of volunteer time from citizens who helped with visual data collection and macroinvertebrate collection.

Since this report is for the development of a CHP, there are no before and after project photos, nor is there any measures of improvements to report. However, the Big Run CHP document does have several photos that can be used as before photos as potential projects develop and the water quality data can be used as comparisons for future measures of progress.



Photo 1: This photo shows one of the well intact riparian areas of the Big Run watershed with its mix of hardwood and evergreen trees and its gently sloping well-vegetated streambanks.

The accomplishment and final outcome of this project was the development of a CHP for Big Run. Added outcomes include additional data collection for water quality and NAACC data added to the partner data base. The CHP and collected data will be a useful tool to allow for future project development within the watershed.