



LACKAWANNA VALLEY CHAPTER

September 25, 2020

Coldwater Heritage Program

Close out:

Summary: The Sweeney Beach Environmental Education center was designed to be an educational opportunity for local high school and college students and at the same time create better trout habitat. The total costs of the project as developed will exceed over \$120,000.00.

The first stage of the project has been completed and with in-kind services considered, totaled nearly \$30,000.00. The first stage included the removal of contaminated soils and three experiments in the eradication of Japanese knot weed. All knotweed has been cut and we are now testing to see which elimination process works best. In the first of the three test areas, soils were dug up in an attempt to remove parts of the root structure. Additionally, the knotweed was cut weekly with the hope of killing off the root wads by removing its leaves and eliminating the plants' ability to photosynthesize.

In the second test area, shoots were cut when they reached knee height and were cut a second time when they again reached knee height. In the third test area, we combined herbicide applicator with cutting. The knot weed was cut and when it reached knee height it was cut again and Rodeo was then applied by a certified professional at an appropriate distance from the river.

Another component of the project consisted of plantings at the bank stabilization test areas. The first stream bank test area was stabilized with rip rap. The second stream bank test area was stabilized with native riparian plant species. In the third stream bank test area, diamond Vanes were used to push the water away from the unstable bank. To improve instream trout habitat seven two-ton boulders were placed in the center one third of the channel and then half log lunkers (wooden habitat structures) were placed intermittently in each of the 2 one-third width channels nearest the banks of the river. No changes were made to the center channel.

Project Outcomes:

As can be seen from the photographs, project objectives have been met. The grassy areas are void of all knotweed. All contaminated soils from the former city incinerator have been removed. Sixteen mature shade trees were planted. Native tree saplings were also planted. Rip rap is in place and is holding. The boulders are in place and holding. One of the six half log structures moved in high water and will have to be replaced, but the others held, and their undersides are being cleaned out by each rain event. Knotweed management will be an on-going effort. Civic groups, schools groups, or other concerned citizens seeking community service project will be offered the opportunity to cut knotweed. In the areas that have not been sprayed, it is anticipated that continued cutting of stalks before they can reach seeding heights will eventually eliminate it.

With these efforts, the first stage of this project is hereby completed with regards to CHP's involvement. Additional funds may be sought for the second stage of the project.

Project sustainability:

Project monitoring has been divided among LVTU and our other partners. All partners will monitor for vandalism. Several individuals have been caught using the project vicinity for illegal dumping and have been prosecuted. Trail-Cam footage was used as evidence. The Scranton City Police will do Bike Patrols at the facility along as will campus security from nearby Lackawanna College. The City of Scranton assists with trash removal

(we have built and placed our own trash receptacles). The City Arborist is assisting with the watering and trimming of the tree plantings. Several groups have built rain gardens and Milkweed Butterfly Pollinating pods and are maintaining them. We have solicited and received help from the Penn State Master Gardeners and the Penn State Master Watershed Stewarts programs. The MWS are raising money for the additional interpretive signage. The Lackawanna Heritage Valley Authority donated six hollow 400lb giant concrete balls. We are in the process of using the giant globes to build a giant representation of a trout redd.

LVTU and the Lackawanna River Conservation Association have partnered to maintain the property and the water habitat and continue to conduct environmental science classes at the facility.

Next phase:

The next phase will include additional interpretive signage, a handicap accessible walkway, and a natural Amphitheatre. We also intend to stretch the boundaries of the project up river with additional by creating and improving existing trout habitat. The City of Scranton is considering placing additional regulations in the area of the levies offering more protections to the river in that area. The facility was used for the River Festival this year, and there are discussions about holding Shakespeare in the Park at the facility. It would be advantageous to restore more streambank and habitat up and down the river, but that will come in time.

Partners and Volunteers:

The major partners in this project have been always been LVTU, LRCA, LHVA, the County Conservation District, the City of Scranton (Parks and Rec., Public works, and Arborist), Penn State Master Gardeners and now the Penn State Master Watershed Stewarts. It has become very difficult to keep track of Volunteer hours. Every week we have volunteers coming to do work. Those groups include local schools, scout troops, neighborhood associations, Big Brothers/Sisters, and concerned citizens. Our chapter TU Teens club and our two 5 Rivers clubs also do clean-ups and weed cutting. The adjoining property owner cuts the lawn because it improves the view from his property and at the same time saves us money for mowing fees.

Accomplishments:

We have improved the flow of water in this channelized area. When the trees begin to get taller, the shading will be more effective. Trout habitat has been enhanced making feeding lies and structure more available for wild brown trout. Removal of the knotweed and bank stabilization has significantly decreased erosion and fewer sediments are getting into the river. We have made improvements to 400 feet of stream bank and riparian buffer on one side of the river with this project (other side of river is a levy). City council has indicated that they would like to see the expansion of streamside and in-stream improvements in the future. We have planted 16 mature shade trees (native species). All but three of the trees have taken root. We have planted at least 2 dozen additional saplings (approximately half of the saplings are taking hold). The Education Center has now become a focal point in many community activities, but most importantly to LVTU, a great fishing area.

Respectfully submitted

Charlie Charlesworth
Project Manager

Project Photos

Before:



During:





After:

