

Juniata Watershed Alliance Volunteers Demonstrate the Impact of Never Giving Up!

In April 2018 volunteers from the Juniata Watershed Alliance (JWA), in partnership with Juniata County Conservation District (JCCD) staff, Juniata Christian School senior high school students and teachers, as well as Chesapeake Bay Foundation staff planted a two-acre buffer along an unnamed tributary of Lost Creek. The site is located on Juniata Christian School property, outside the village of McAlisterville. The Chesapeake Bay Foundation's Keystone 10 Million Trees Partnership provided 200 native trees and shrubs including oaks, maples, sycamores, and winterberry holly.

Unfortunately, in the months following the planting, the regular and necessary maintenance to ensure adequate levels of tree survival was not performed. Admittedly, the location of the planting on a hillside, and the fact that the trees were not planted in a grid, made proper maintenance a bit of a challenge. Additionally, this small tributary runs through rocky terrain with many ditches and small gullies making mowing impossible. Hand tools are required for any maintenance efforts.

During a meeting in early 2020, just before the Covid-19 quarantine was imposed, JWA and JCCD met at the site to conduct a mortality assessment and determine how to best go about replanting, caring for, and maintaining the site moving forward. JCCD staff and JWA volunteers observed that voles had decimated the trees, leading to about 70% mortality. So many of the trees did not survive that there was cheering when any trees were found alive.

JWA volunteers were not willing to give up on this important riparian buffer site. JWA again partnered with the Chesapeake Bay Foundation's Keystone 10 Million Trees Partnership and received about 100 additional trees. Despite Covid-19 restrictions, JWA volunteers were successful in planting these trees, plus 20 more provided by JCCD, on the site in May 2020. JWA volunteers and staff from JCCD sprayed a herbicide around the tree tubes and cut the canary reed grass to limit the amount of cover for voles. JWA's efforts at this riparian buffer site were featured in the local weekly newspaper on Earth Day, 2020.

Next, in the fall of 2020, the Garden Club from the Juniata Christian School joined JWA volunteers to plant the final shrubs. Juniata County Commissioner Alice Gray and Dan Auker, from Representative John Hershey's office, also assisted with this planting effort.

During the '20-21 winter, JWA volunteers checked the site a few times to make sure tree shelters were still upright. When spring came, JWA volunteers, with the assistance of the students, conducted another mortality check, with fingers crossed. While there was some vole damage and a few trees that did not survive, total mortality was down to about 15 to 20 percent. JWA volunteers discovered trees from the initial planting that had survived and were starting to grow up through the tree shelters. The winterberry shrubs planted in the fall had been browsed a bit, despite the application of deer repellent.

JWA volunteers learned an important lesson from this buffer planting project – **tree care and site prep and maintenance are just as important as tree planting!** More frequent visits allowed for critical intervention including saving some trees that had blown over. Keeping the grass shorter allowed natural predators to see and catch those pesky critters, the voles. Spraying proved to be a viable option to keep the area around shelters clearer and to deter voles. Application of deer repellent to the newly planted shrubs reduced browse on the shrubs.

The work at this buffer solidified JWA's plans to join Riparian Rangers, an initiative of the Alliance for the Chesapeake Bay which trains volunteers who want to ensure riparian forest buffers successfully take root. Riparian Rangers visit newly established sites monthly during the growing season for up to three years.

Alliance staff Ryan Davis and Rebecca Lauver provided training for JWA volunteers in June 2021 and these watershed organization citizen champions of water resource protection look forward to their buffer project assignments as Riparian Rangers.

Project Pictures:



Image 1: Vole damage to tree after initial planting



Image2: A surviving oak from the initial 2018 planting.



Image 3: A black willow from the 2020 planting