The Cove Run Brook Trout Restoration Project with the Northern Garrett High School AP Environmental Science Class, 2012 – 2014.

Presented By:
 Alan W. Klotz, Western Region District I, Inland Fisheries Manager
The Brook Trout, Maryland’s only native trout species, has experienced a 90% decline statewide from historical populations. This fish needs cold, clean water to survive.
Management Recommendations:

5. Encourage riparian buffer habitat preservation and restoration.

10. Support grass roots advocacy groups dedicated to the conservation of Brook Trout in Maryland.
January 2012 – NGHS Environmental Science Teacher Rebecca Kenyon-Sisler and MD DNR Fisheries Manager Alan Klotz met with two landowners in the Cove Run watershed to discuss a student hands-on learning opportunity on their farms.
A total of $4,500 was awarded for the NGHS students to begin their work!
Mr. Chuck Hayes of the Natural Resource Conservation Service became a major partner with the Cove Run Brook Trout Restoration Project.
Habitat Forever, LLC, A Pheasants Forever Company, based out of California University of Pennsylvania, under the direction of Mr. Jose J. Taracido, was contracted to conduct the fencing project on the Dennis Margroff farm.

About 87.5% of the cost was covered by Maryland Department of Agriculture’s Maryland Agricultural Water Quality Cost-Share Program (MACS).
A line in the sand was drawn......
March 20, 2012 – Fencing installed by Habitat Forever, LLC.
April 12, 2012: Northern Garrett High School’s AP Environmental Science Class starts to work on the project.
DNR Forest Service personnel demonstrated proper tree planting techniques.
Success! First apple tree planted!
April 12, 2012 the students planted:

- 20 (5’-7”) Apple Trees supplied by YRWA
- 60 Red Osier dogwoods supplied by the National Wild Turkey Federation
- 10 Black Willows, 50 Silky Dogwood, and 20 Witch Hazel seedlings supplied by the Dept. Juvenile Services Meadow Mountain Youth Camp.
- 160 trees/seedlings planted that day!!!!
Invasive plant removal – multiflora rose and Japanese barberry.
MD DNR Wildlife Service “donated” Bluebird Boxes.
The Dept. of Juvenile Services also provided 22 larger trees (6 – 8’) through a grant they received, including 5 apple trees, 5 flowering dogwoods, 5 service berry, 5 Eastern redbud, 5 black gum, and 2 sugar maple trees. These trees were planted by MD DNR on 4/17/12.
May 17, 2012: Fencing completed and hardened cattle crossing installed.
After....
May 17, 2012: NGHS students performed baseline water quality, stream habitat, and biological studies in Cove Run headwaters.
The students measured stream temperature, pH, turbidity, dissolved oxygen, and nitrate levels using equipment purchased with the DNR ARE grants.
Students assessed aquatic macroinvertebrate populations using equipment also purchased through the DNR ARE grants.
Electrofishing survey – found creek chubs!
We electrofished Cove Run below Camp Hickory and documented a naturally reproducing Brook Trout, estimated at 172 adult trout and 64 young of year trout per mile in 2012.
Fish Species Found in Cove Run

- Brook Trout
- Mottled Sculpin
- Blacknose Dace
- Creek Chub
During the summer of 2012, stream temperatures exceeded 68° F only for a short period.
We also worked with two other landowners in the watershed, one on a tributary and one on the mainstem of Cove Run.
The mainstem Cove Run fencing project by Habitat Forever, LLC was completed during Summer 2012. About 2,000 feet of stream (7.1 acres) were fenced to create a protected riparian zone. This property is the Bobby Bender farm - home of the “Corn Maze”.
May 24, 2012 – Fisheries Service staff planted 20 apple trees and 200 seedlings of button bush, silky dogwood, arrow-wood, and winterberry. These trees were provided by the DJS and Habitat Forever, LLC. Two properties were planted: Bob Bender and Jim Margroff farms.
Pear tree planting on the Bender farm on 4/18/13. When MD DNR Forester Ernie Metz speaks, even horses pay attention!
On May 23, 2013 – Mrs. Kenyon-Sisler’s Enrichment Class helped plant 650 tree and shrub seedlings at the Margroff and Bender farms!
Stream habitat, water quality, and bio-assessment studies continue in Cove Run during 2013 and 2014.
Free living, predacious caddisfly larva – indicator of “excellent” water quality.
Aquatic salamanders started to inhabit the stream.
Northern water snake – either love them or you hate them!
2014 – More brook trout than creek chubs!
The student experience in their own words…

“The experience was very educational, yet it was also pretty fun. I enjoyed applying the knowledge we gained in class to real-world environments.” J.M.

“The Cove Run project was an excellent way to not only learn about the different problems that current aquatic ecosystems are undergoing, but ways to solve these problems and why we should do something about it.” E.G.
Northern Garrett High School received the MD DNR PLANT Award in 2013 for the remarkable number of trees the students planted along the stream.
The 37th Annual Tawes Award for a Clean Environment – Youth Category.
Save the Date!

You are Invited to Celebrate
The Cove Run Brook Trout Restoration Project!

Saturday    April 27, 2013
1:00 pm ~ 4:00 pm
Northern Garrett High School
Accident, MD
Rain Date ~ May 4, 2013

The event is being hosted by:
Northern Garrett High School Environmental Science Class,
Maryland Department of Natural Resources, Natural Resource Conservation
Service and the Youghiogheny River Watershed Association.

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Partnership acknowledgements:

- Northern Garrett High School
- Maryland Department of Natural Resources
- Natural Resource Conservation Service
- Youghiogheny River Watershed Association
- Maryland Department of Juvenile Services
- Meadow Mountain Youth Camp
- Yough Chapter of Trout Unlimited
- Habitat Forever, LLC
- National Wild Turkey Federation
- Garrett Soil Conservation District
- Maryland Department of Agriculture
- US Fish and Wildlife Service

Special gratitude is extended to Dennis Margroff and family, Steve Margroff and family, Jim Margroff and family, and Bobby Bender and family for making this student learning project possible!
Thank you!