

White Sulphur Springs Constructed Wetland

Grant Award Number: NPS1491

Grant Period: February 1, 2014- September 30, 2015

Fund year: 2012

Final 319 Report

Submitted:

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Project Manager:

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Problem: The National Fish Hatchery located in White Sulfur Springs serves the community by educating about water quality and wildlife habitat. They raise trout and mussels for release into natural habitat and reestablishment projects. Over the years as operations at the hatchery has changed, some of the infrastructure including pipelines and rearing ponds have become idle. The scope of this project is to utilize an idle rearing pond to develop a wetland system that will filter nutrients from the water used in the fish production systems and control storm water from the parking lot, buildings, and grounds. The facility will be utilized to teach the public about the important of wetlands and their function within an ecosystem.

Solution: Then WVCA worked with NRCS to survey and design a constructed wetland. Once the design was finalized WVCA bid out the project. HunHar Excavation completed construction in September 2015. WVCA and Hatchery staff worked together to seed the wetland with trees and wetland variety species. Other partners including Trout Unlimited contributed duck boxes including the labor for installation. Then Lynch Construction hydro-seeded the wetland to ensure vegetation growth before the dormant season. In June 2016 a massive flood impacted the greenbrier valley area. The flood left large amount of debris within the wetland. After all the debris was removed from the area Southern Conservation District placed mulch within the wetland to create an organic layer. This organic matter will help facilitate vegetative growth, and filter out nutrients before discharging into the creek.

Figure 1



Highlights: Education of wetlands is the primary use of this project. The Greenbrier River Watershed Association holds multiple programs throughout the year for elementary and middle school students. In the past these programs have included educational field trips like water quality monitoring at a local spring and karst awareness at a local cavern. By utilizing this facility to conduct wetland awareness field trips, students will learn the importance of clean water and how natural systems function, plant identification, soils interpretation, water quality monitoring, and storm water issues.

Figure 2



Figure 3

Federal Grant Amount	\$20,000.00
Spent	\$20,000.00
Match Needed	\$13,333.00
Match Spent	\$13,420.32
Total	\$33,420.32

Follow-up notes

The management at the hatchery has changed since the wetland was completed. As far as I know the hatchery staff will be taking WQ samples to measure the success of the project. Since we had the record flood this summer I would expect the hatchery staff is still recovering from that event and are working on getting the operation back up and running. I would expect WQ data to start sometime this spring.

At this point we don't have any plans for field days or outreach/education programs. As far as I know the hatchery staff is satisfied with the constructed wetland. Dennis and I are going to be in contact with the Hatchery staff to discuss exactly when they will be starting WQ sampling and discuss scheduling a field day/ educational effort of some sort.

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