

***HARRY AND LAURA NOHR CHAPTER OF
TROUT UNLIMITED***

***BLUE RIVER HABITAT IMPROVEMENT PROJECT
2016***



Report Prepared by the
Project Committee
Harry and Laura Nohr Chapter of Trout Unlimited

Sponsorship and Partners

The role of the Harry and Laura Nohr Chapter in this project was to serve as a project sponsor and leader. The chapter does not have the physical or financial resources to undertake a project of this magnitude alone; it is necessary to collaborate with other organizations for volunteer labor and financial assistance. The Nohr chapter, as always after any major project, is indebted and grateful for the financial and physical efforts it has received through the year. We also look forward to continuing these joint ventures in an ongoing habitat improvement effort.

The partners for the 2016 Blue River Habitat Improvement Project are as follows:

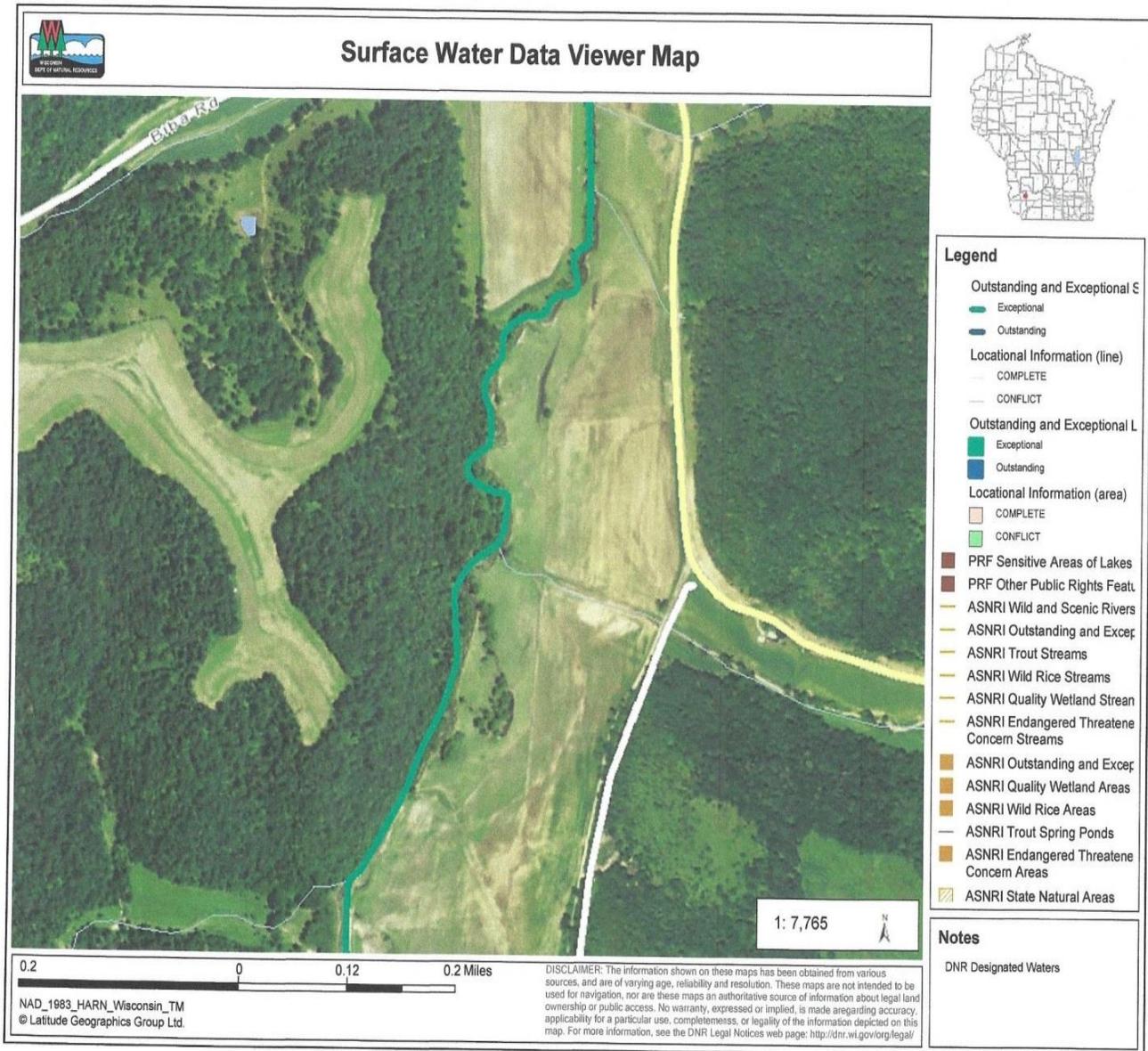
- Natural Resources Conservation Service
- Wisconsin Department of Natural Resources
- Elliot Donnelley Chapter TU
- Madison Fishing Expo
- Badger Fly Fishers
- Friends of Wis Trout
- Lee Wulff Chapter TU
- Southern WI Chapter TU
- Blackhawk Chapter TU
- Dave Roh Excavating
- Trout Unlimited Driftless Area Restoration Effort



A back water area created when a tall vertical bank was tapered to an island

Background

The Harry and Laura Nohr Chapter of Trout Unlimited undertake habitat improvement projects as a part of its mission “to conserve, protect, and enhance the cold water streams of Southwest Wisconsin”. In 2003 the Harry and Laura Nohr Chapter approved a plan to improve the habitat of the Blue River and its tributaries.



Because of the importance of the Blue River and its tributaries as cold-water resources in a matrix of lands with unusually great potential for conservation, the Harry and Laura Nohr Chapter have focused on habitat restoration along these streams. This report addresses the work on the main stem of the Blue River conducted in the summer and fall of 2016. This section of stream, approximately 3,500 ft. in length is immediately below the 2012-2013 project site on lands owned by the David and Maria Drews family and the Grim family trust.

Stream Conditions before the Project



Pink ribbon was tied on at twelve feet.





Upper stream section in this photo shows work that was finished in the summer before all the rain events that postponed the lower third of the project (part of which is visible in the lower part of this picture) into the fall.

This project started where our 2012-2013 work concluded. The habitat in this section of stream was as bad, or worse than the 2012-2013 site. The entire section was severely entrenched with vertical eroding banks as high as 13 feet. Prior to the project, the stream held trout but the habitat was in poor condition. The stream bed was heavily silted in most places and very wide in some. The project section ran through actively grazed pasture. In addition, much of this stream section ran against steep hillsides undercutting trees which caused continuously eroding banks and made the work much more difficult. About half way through the project site a severely incised ditch extended from the stream across the pasture to a fence. This ditch drains a huge area of uplands. A crossing needed to be installed across the ditch to enable access to the upper half of the project.

Stream and Riparian Improvement Work

The 2016 Blue River project improved stream habitat along approximately 3,500 feet of the Blue River. Deeply incised stream banks were tapered at a ratio of six or seven to one where possible. Approximately 12,000 cubic yards of stream-bank soil were removed from the immediate flood plain. Because the entire stream length flowed through pasture all of this soil was removed off site, requiring hundreds of trips with dump trucks. Rip-rap medium was used to armor stream banks and improve habitat. Riffle-pool topography and sinuosity of the stream were improved. Structures added to improve fish habitat included stream barbs, log deflectors, vortex weirs, boulder retards, and root wads. In addition, several backwater areas were created or enhanced to benefit turtles, amphibians, and forage fish. Two cattle crossings and one equipment crossing were also constructed.



A section of stream against the hillside being tapered. Notice the large section of bank that sluffed off during one of the large rain events that occurred while the work was in progress. This happened in several other areas as well.



Before and after photos of drainage ditch that crossed the pasture. To access the upper end of the project we had to be able to cross this ditch. Three large pipes were installed in the upper end and covered with rock and breaker run which allowed trucks to cross. When the work was finished above this site the banks were sloped back and seeded, the pipes were removed, and the rock was used to make a cattle crossing that fit the contour of the ditch.





The photo above shows the banks before shaping. The lower photo shows the inside bank with box elders removed and the start of bank shaping. This section is just below where the drainage ditch enters the stream. The majority of the project site consisted of vertical banks similar to these or higher on both sides of the stream.





The photo above was taken after a large rain event. You can see where the stream rose all the way to the top of this tapered bank. This is the outside bank in the photos on the previous page. It rose this high twice, and went four to five feet out of its banks several other times. This caused us to have to reseed this site four times. The photo below shows the finished section with grass becoming established.





The raw high banks in the top photo are another example of what existed throughout the majority of the project site. The lower after photo shows the same site after bank shaping, and a weir, root wad, and two log deflector sets were installed.





This before and after sequence is from the upper most section of the 2016 project site. We crossed the fence that exists just above this photo and separates this pasture section from the field section that was the end of the 2012-13 project site. This tied the two finished projects together.



Conclusion

The Blue River is among the most popular and significant of the many beautiful trout streams of Southwestern Wisconsin. Generations of wise landowners have preserved the remarkable landscape of the area. In the present day, strong commitment of landowners to conservation ensures that the picturesque geology and diverse plant communities of the Blue River will persist into the future. As a result, the Blue River and its tributaries are a remarkable cold-water resource. There are enough miles of trout water of sufficient flow to accommodate many anglers. The streams offer diverse management practices. Some reaches provide the opportunity to catch the trout of a lifetime under trophy-preserving catch-release regulations. Other reaches offer trout for breakfast under regulations that allow sustainable harvest. The 2016 Blue River project has improved habitat and angling opportunities as well as opportunities for enjoying the native plants and animals of Wisconsin. The Harry and Laura Nohr Chapter of Trout Unlimited are proud to have sponsored this project, and are deeply grateful to our many partners listed in this report. A special thanks to Grant County NRCS District Conservationist Joe Schmelz and his office, and DNR fisheries biologist Bradd Sims for all of their help in facilitating this project. As with every stream conservation program, partnerships among landowners, businesses, anglers county and state government, and the state and national TU organizations are essential for the success of the Blue River Habitat Improvement projects. Although the 2016 project had many challenges and delays due to significant weather events our plan is to complete an additional 2000 feet to the next bridge on Biba Road.

