

**HARRY AND LAURA NOHR CHAPTER OF
TROUT UNLIMITED
SIX MILE BRANCH
HABITAT IMPROVEMENT PROJECT
2011**



Harry & Laura Nohr Chapter of Trout Unlimited Six Mile Branch Habitat Improvement Project 2011 Project Summary

Background

The Nohr Chapter of Trout Unlimited annually undertakes a stream habitat improvement project as an essential part of our mission “to conserve, protect, and enhance the cold water streams of Southwestern Wisconsin.” In the summer of 2010 two project committee members and our contractor walked the proposed 2011 site and put together a preliminary project design for the stream. We handed the plan over to another project committee member who finalized the design. The plan was submitted to the DNR and the appropriate permits were received. After receiving additional funding from NRCS the plan was modified to meet their additional requirements. So everything was now in place to begin our 2011 project. Our 2011 project comprised approximately 6400 ft. of stream work on the Six Mile Branch in Grant County. The landowner was someone we have worked with in past projects. His cooperation was an important part of our completion of another successful project. We are very appreciative. As in all of our stream habitat improvement projects we considered the entire riparian as a whole. In our efforts to restore trout and forage fish habitat we did not overlook the other critters of the riparian. We used various techniques that would also be beneficial to reptiles and amphibians.

Sponsorship and partners

The Nohr Chapter’s role in these projects is to serve as a project sponsor and the project leader. Because the chapter does not have the physical or financial resources to effectively undertake projects of this scale alone, it is necessary to reach out to other organizations for volunteer labor and financial assistance. We are indebted and grateful for the financial and physical support we have received from our partners over the last several years. We look forward to continuing these partnerships in our ongoing habitat improvement efforts. The partners for the 2011 Six Mile project include:

Natural Resources Conservation Service
Wisconsin Department of Natural Resources
US Fish & Wildlife Service
Trout and Salmon Foundation
Trout Unlimited Driftless Area Restoration Effort

The Elliott Donnelley Chapter TU
Wisconsin State Council TU – Friends of WI Trout
Madison Fishing Expo
National TU Embrace-A-Stream
Grant County Conservation Fund

Our partnership with the Wisconsin DNR and the help we have received from our area fisheries manager, Gene VanDyck, has been very important in the facilitation and successful completion of this project. Stream restoration work is labor intensive and expensive. The partners listed above provided over 375 hours of volunteer labor and/or financial support for contracted machine work and required materials necessary to move the project to completion.



Completed Lunkers and Face Rock



Seeding & Mulching

Project Activities

One of the project activities requiring volunteer help was building lunkers. We only used 12 lunkers in this project so a small work day is all that was needed. Throughout the project we also used volunteer help to seed, mulch and put down erosion matting. This stream segment runs through a cattle pasture for its entire length so no brushing was required. However, this required us to fence the entire project segment with temporary fencing, which required many hours of volunteer labor.

This year we held our sixth annual post-project celebration. This event was held streamside on our 2008 Blue River project site. Watershed landowners, local community members, governmental agency employees, and chapter members were invited to attend.

Those attending enjoyed a wonderful lunch on a nice fall day. This year as part of the celebration in conjunction with the Southern Chapter we raffled off two very nice fly rods, one a handcrafted bamboo rod. These rods were generously donated by a Nohr Chapter member. The funds generated from this raffle will be used for future project work.



Landowners & friends at the celebration picnic

A stream tour was provided to explain our project work. After which, WI DNR fisheries manager, Brad Simms, and a couple of volunteers, electro shocked a segment of stream, showing a very healthy fish population. During this demonstration, Brad did a great job explaining the habitat requirements of not only the trout but also the forage fish and macro invertebrates in the stream.



Couple of volunteers helping Brad in shocking demonstration

Stream and Riparian Improvement Work

The foremost objective of the Nohr Chapter is to complete projects that reflect and exceed the best known practices in habitat improvement work. We endeavor to produce outcomes that reflect the highest standards of technical expertise and aesthetic quality. The techniques used to achieve these outcomes may vary on different stream segments.

The 2011 Habitat Improvement project was completed on a 6400-foot section of stream on Six Mile Branch in Grant County. This reach of stream runs through a pasture for the landowner's beef cows. Much of this section of stream was comprised of vertical banks that were eight to ten feet high. Large sections of these eroded, unstable banks continually sheared off, contributing to huge sediment loads in the stream.



Huge eroding bank in March 2011 typical throughout project site



Fence in background was moved 20' back to allow for bank shaping

Work on the project started in June and was finished by the end of September. The initial work consisted of mowing the lower end of the site, putting temporary culverts in the low drainage areas and springs so trucks and equipment could cross. A couple of machine stream crossings had to be installed to allow the contractor to access different areas of the site. As the work progressed the culverts were removed and the areas were shaped and seeded. One of the main goals of this project was to reshape and stabilize eroding banks to help reconnect the stream to the flood plain. This allows the stream to run narrower and deeper exposing gravel and cobble areas and allowing them to scour deeper holes and runs while decreasing the sediment load in the stream. Another goal was to protect and enhance the springs and seeps that enter the stream throughout the site. Where these springs and seeps entered the stream and were accessible to the cattle we reshaped and armored the banks.

The restoration work was quite extensive. It required doing thousands of feet of bank stabilization. Approximately 25,000 yards of bank spoil were hauled out of the immediate flood plain. Cross-channel logs and half-weirs were installed to help scour holes and runs. Some boulder retards were added as well as the strategic placement of lunger structures for protective cover. Log deflectors were added which will create overhead cover and also create habitat for amphibians and smaller forage fish as well as basking areas for reptiles and amphibians. Deflectors placed in strategic areas helped to create stream meanders. Several cattle crossings were also installed.

Since this area was an actively grazed pasture it was reseeded with a pasture mix of cool season grasses. To keep the cattle away and to protect all of the area that we shaped and reseeded the entire site had to be fenced with electric fencing. This was a tall job since both sides of the stream and some of the adjacent woodlands had to be properly fenced to ensure protection of the vegetation we were trying to get established. Although this took up a fair amount of the land owner's pasture he was very cooperative.

Although this year's project was quite large in scope we had enough time to start work on an additional 1,000 feet below this year's project. Most of the bank shaping and structures on this additional segment are done. We will finish the additional work needed to complete this segment in the spring/summer of 2012. This will amount to a total of 7,400 feet of habitat improvement work on Six Mile.



Armored and shaped site from pictures on page 7 with vegetation establishing



Another example of eroding bank contributing a large sediment load to the stream

This site as seen from the previous page was wide and shallow with approximately 1-1/2 feet of silt covering the stream bottom.



This site after shaping and armoring. A weir and cattle crossing(not visible in photo) are installed above it

With this project, as with all Nohr Chapter projects, an effort is made to incorporate or improve habitat for all species in the riparian area by installing escape logs, root wads, and backwater areas to benefit amphibians, reptiles, and other fish.



Before the work this spring and another one upstream, along with some wetland seeps that entered the stream, had high eroding banks similar to the stream and had damage from cattle. The banks were tapered and armored along with the stream and cattle crossings were installed



Log deflectors provide overhead cover for trout and nooks for forage fish as well as habitat for amphibians and reptiles



Example of backwater area that was enhanced. In back of vegetation in background a shallow wetland scrape was installed.

Summary

The 2011 Six Mile project showcases one more example of successful stream habitat improvement work in Southwest Wisconsin. The improvements to this segment as well as the previous work done on Blue River and Big Spring will benefit the entire Blue River watershed by reducing the sediment load into the system. Other species in the riparian area will also benefit from the work that has been done.

The Nohr Chapter is proud to have sponsored this project and is deeply indebted to the partners who have volunteered services and funds to this restoration effort. Stream work requires significant team effort; we could not have done it without the help of our partners. Thanks to all.



View of the valley of this year's project site