

# 2004 Blue River Project

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## **Background**

The Nohr Chapter of Trout Unlimited annually undertakes a stream restoration project as an essential part of its mission “to conserve, protect, and restore the coldwater streams of Southwest Wisconsin.” The effort to restore a segment of the Blue River started in the Fall of 2003 with board approval of the proposed project proposal. Subsequent to board approval the designated project leaders initiated efforts to secure funding, recruit partners, and to prepare grant applications. When it became apparent that funding adequate to achieve project goals had been pledged the board granted final approval to proceed.

## **Sponsorship and partners**

The Nohr Chapter's role in this project is to serve as the project sponsor or project leader. Because the chapter does not have the physical or financial resources to effectively undertake project activities it is necessary to reach out to other organizations for volunteer labor and financial assistance; that is, a partnership is required to achieve desired quality outcomes . Exemplary technical and ecological project outcomes are of top priority. Exemplary outcomes are the chapter's motivational push and they provide the cohesiveness that binds our partnership efforts.

The partners for the Blue River 2004 project are:

The Larry Wolenec family (Land owner)  
The Harry & Laura Nohr Chapter of TU  
The Blackhawk Chapter TU  
The Elliott Donnelley Chapter TU  
The Oak Brook Chapter TU  
The Lee Wulff Chapter TU  
The Garry Borger Chapter TU  
National TU Embrace-A-Stream  
Wisconsin State Council TU  
Wisconsin DNR  
Madison Fishing Expo  
The Besadny Foundation  
Iowa County Land Conservation Dept.

USDA NRCS  
Lands' End  
The Patagonia Corp.

Stream restoration work is labor intense and expensive. The partners listed above provided over 700 hours of volunteer labor, financial support for contracted machine work and required materials, and for moral support necessary to move the project to completion.

## **Project Activities**

The in-stream design of the project was done in late winter by Roger Widner of the West Fork Sports Club. Mr. Widner was chosen to do the design because he has extensive experience in stream restoration design and work.

## **Brushing On the Blue**



2004 Blue River Brushing Volunteers







Volunteers at work brushing

## **Lunker Building**

The project design called for the installation of 40 wooden cribs (lunkers) that would provide overhead cover for fish. The necessary materials were purchased and a work day was scheduled in May to build the structures.

About 25 volunteers responded and the required units were assembled on site. Building lunkers is hard and heavy work. The generators and power tools that the Nohr Chapter previously purchased helped speed the process.





Lunker building site

### **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 stream restoration work. We endeavor to produce outcomes that reflect the highest standards of technical expertise and esthetic quality. This begins with a design drafted by a recognized restoration practitioner. It is reflected in lunker structures that are built to proven standards with quality materials. We are also selective regarding the nature of the rip-rap materials and the face rock that go into the project. We endeavor to employ contractors who have demonstrated exceptional skill in doing this type work, and we monitor all aspects of the job. These efforts have paid off; the Blue River project definitely reflects quality of a higher standard.

The targeted stream segment of this project commences at the County Highway I bridge between the Villages of Highland and Montfort and continues upstream (Eastward) approximately one-half mile on the property of the Larry Wolenc family. The Wisconsin DNR holds a public fishing easement on this segment.

Major segments of the overhead tree canopy have been removed to promote the growth of riparian grasses and biotic mass in the stream. Lunker structures have been placed on the outside of strategic bends; they have been topped with flat face rock, back-filled with rip-rap, covered with soil, seeded, and mulched. Rock deflectors have been installed, where appropriate, to direct the current flow through the lunkers to keep them free of silt. (Forty lunkers were installed; most were installed in tandem of 2 to 4 units.)

Two cattle crossings and a watering area were installed because a portion of the riparian is pastured. These areas provide passage for the cows to cross without disturbing stream bed sediment.

Several rock weirs were placed for the purpose of restoring the riffle-pool-riffle sequence and for the purpose of scouring holes. A series of J-hook structures were installed in one area that flowed wide and flat for the purpose of speeding the flow and creating back eddies that in time will have the effect of filling behind the structures and narrowing the stream.

A significant portion of the run has been rip-rapped at the bank toe and the eroded bank was then tapered back at about a 2 to 1 ratio. This will retard erosion at the waters' edge and will enable flood water to flow over the tapered portion without cutting into the seeded soil.

In general, the flow has been accelerated; this will enable the stream to flush accumulated silt, scour deep holes, and it should also run somewhat cooler. The lunkers and deep holes will provide overhead cover, and the restoration of the riffle-pool-riffle sequence will enhance the opportunity for natural reproduction. The rip-rapping, strategically redirecting the flow and bank tapering will reduce soil erosion to a minimum.

## **Conclusion**

The Blue is one of the most significant and appealing streams of Southwest Wisconsin. The scenery is spectacular and the stream itself is large enough to attract and accommodate a considerable number of anglers. It is one of those streams that fishermen will travel a couple hundred miles to fish. This project and future projects will enhance the fishery and increase its appeal. The Nohr Chapter is proud to have sponsored this project, and is deeply indebted to our partners who have donated volunteer services and funds to the effort. We could not have done it without that help.