

## **Final DNR Report**

Stony Brook Restoration – Phase Two  
Lakeshore Natural Resource Partnership (LNRP)

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### **Project goals and objective**

LNRP sponsored a project to build upon Phase 1 and 2 of the Stony Brook restoration efforts with additional work downstream from the earlier work to install buffers, enhance fish habitat, and meander and restore a channelized stream corridor.

### **Final Deliverables**

1) Restored a 580-foot channelized section of Stony Brook by recreating meanders, adding instream habitat, improving impeded flow, and creating healthy stream buffers between the stream and adjacent cropland;

The original channel made 2 right angle turns (90°) along the ROW and between 2 active crop fields (Hahn and Meyer fields). During heavy rain events, the stream “jumped” the ROW at the first 90°, actively eroding away the cropland to form a new channel.

We reestablished the historic channel on the Hahn property, by excavating approximately 585 linear feet, recreating meanders, pool/riffle complexes, and tying into the existing channel near a 3rd (90°). The design was completed by Fish Creek Restoration in collaboration with Calumet County Land and Water Conservation Department. The design included a floodplain analysis as required by FEMA for any work south of Hwy F.

Final design met NRCS standards: 395 Stream Habitat Improvement and Management, 580 Streambank and Shoreline Protection, 484 Mulching and 612 Tree Planting. A stream crossing for recreational use met NRCS 578 Stream Crossing.

2) Built on current community engagement efforts to expand the Trout in the Classroom experience by engaging students in the habitat restoration efforts and increasing awareness of land use impacts on water quality.

A Trout in the Classroom (TIC) program began in 2016 involving Chilton School District students in the rearing and release of brown and brook trout and has been a catalyst for restoration work in the stream.

FOSB and TIC Educators worked with the project landowners to host a TIC Field Day that demonstrated both the trout rearing program and restoration projects. Educational stations at the field day event include learning about invasive species, streambank erosion, macro-invertebrate indexing, human impacts, water quality monitoring testings such as turbidity and dissolved oxygen, and culminates with the releasing the classroom-reared fingering trout.

TIC is the hook that got the community interested in this project, and through this program the students are telling the story of the stream. Project partners have been motivated by the lessons learned from the TIC program and the opportunity it provides to educate students and the community. Grant funding allowed LNRP and project partners to effectively communicate this story to the public through increased outreach and education.

The TIC program has strengthened student learning of science concepts and skills in the classroom and field, and promoted environmental stewardship through the reintroduction and conservation of a native species in a local stream. The ecological impact of the students' efforts on the local watershed extend well beyond the rearing and release of the trout.

These students are the next generation of environmental leaders and sharing their experiences will allow them to teach others. Students have assisted in stream electro shocking surveys and in the collection of WAV stream monitoring data. The PIT tags used to track fish utilize solar power, providing an opportunity for cross disciplinary learning in the school's energy conservation course. The program has inspired innovative thinking in the development of several variations of aquaponics systems.

Educating the community about the TIC program and subsequent restoration activities will in turn provide support for its continued ability to provide educational opportunities for students. Students have taken field trips to fish hatcheries and have collected and disaggregated the data to send to the WDNR, experiences that have encouraged several students to consider careers in natural resources. In these cases, the program has a long-term impact reaching far beyond the waters of Stony Brook.

LNRP also continues to facilitate the development of a Friends of Stony Brook (FOSB) steering committee. The steering committee brings together existing project representatives and engaged additional stakeholders to build a strong and diverse committee. The committee serves to protect and restore the Stony Brook watershed. FOSB continued to engage riparian landowners with the goal of recruiting additional stretches of stream for habitat restoration and cropland practices to better protect water quality.

FOSB hosted an "Open House" upon completion of the project. Parents and families of TIC students were invited, along with riparian and non-riparian landowners. The event began with an informative presentation by the TIC lead educator, who provided updates and highlights about the program. Attendees then joined a guided tour led by a staff member from the Calumet County Land and Water Conservation Department, explaining the construction process for the newly reconstructed Stony Brook channel along the Hahn property. The event concluded with an exciting electrofishing demonstration by the Wisconsin Department of Natural Resources (WDNR) at a previously restored site.

In the Fall of 2024, FOSB volunteers coordinated with Calumet County Land and Water Conservation Department, Wisconsin DNR, Fox Valley Trout Unlimited, and LNRP a volunteer restoration day at a private land-owner's property along Stony Brook. Volunteers mainly consisted of high school students from the Chilton High School Conservation Club, Chilton National Honor Society, and the Kiel Fishing Club. The volunteer-led project focused on a 2,000 foot stretch of Stony Brook that had become overgrown and difficult to navigate. Students worked to clear and restore the area, ensuring natural fish passage and downstream migration.

LNRP in partnership with FOSB created a website to serve as a landing page for the group and document activities in the Stony Brook watershed. The team also created social media accounts to generate interest and excitement about these activities, and the social media accounts are managed by Chilton High School students.

3) All design plans and final report summarizing the project;

[StonyBrook\\_DesignDrawings\\_220909.pdf](#)

[StonyBrook\\_DesignMemo\\_220913.pdf](#)

[StonyBrook\\_HydraulicMemo\\_220916.pdf](#)

[StonyBrook\\_DesignDrawings\\_230810-AsBuilt-241028.pdf](#)

4) Copy of the recorded contract between grantee and property owner.

[NRCS Hahn 1245 1.pdf](#)

### **Special Conditions**

Prior to construction, LNRP obtained all requisite landowner access and permits as required from WDNR, the Army Corps of Engineers, Calumet County, and other regulatory agencies or municipalities.

### **Conclusion**

Our overall objectives are to foster greater conservation efforts, with local property owners likely installing additional cropland practices to better protect water quality. It is anticipated that habitat work will continue upstream where easements have been obtained. Every successful project will serve as an example to recruit additional landowners to the project. The landowner and local community will become more aware of impacts of adjacent land use on water quality. The "Hahn Project" is advancing the overall Stonybrook Restoration by moving downstream and working with two additional riparian owners. The 2 acre Hahn field will convert marginal cropland into a function riparian corridor with upland wildlife habitat. The Meyer field will benefit from reduced erosion preventing the stream from carve a new path through the property.