



LSP's Root River Initiative

Engaging Farmers & Landowners Around Continuous Living Cover

www.landstewardshipproject.org

The Root River

Improving the hydrological health of the Root River in southeastern Minnesota is imperative in a watershed that is particularly vulnerable to erosion and runoff. The Root River starts as a drainage ditch in Mower County, then winds 81 miles before finally emptying into the Mississippi River south of La Crosse, Wis. The river flows through the Driftless Area and it is characterized by intensely farmed rolling uplands, bluffs, deep valleys, well- and moderately-drained silty soils, and karst geology. Contaminated surface water can rapidly infiltrate through soils or directly enter the subsurface via sinkholes. This can pollute aquifers used for drinking water or groundwater that may supply trout streams. Some streams are on the impaired waters list and habitat is threatened.

One key way to improve water quality in the 1.07 million-acre watershed is through the establishment of more continuous living cover on farmland 365-days-a-year. Given that 97 percent of the watershed is in private hands, that means reaching out to farmers and other landowners whenever possible. Estimates indicate there are approximately 3,000 farms in the watershed. Approximately 57 percent of the operations are less than 180 acres in size, 39 percent are from 180 to 1,000 acres in size, and the remaining farms are greater than 1,000 acres in size. Agricultural trends are toward fewer and larger farms with increased field size, more soybeans and decreasing acreage in forage, small grains and pasture, as well as fewer ruminant animals on the land.

From 2009 to 2017, the Land Stewardship Project (LSP) engaged with a group of farmers and other landowners in the watershed to promote practical, profitable methods of getting more continuous living cover on a working landscape, in the process building soil health and improving water quality. Through this initiative, LSP utilized: **1)** one-to-one conversations, **2)** field days/workshops, **3)** team building, **4)** on-farm research, **5)** outreach to non-farming landowners, **6)** media outreach, **7)** tool development, and **8)** partner

engagement. These strategies/tools were used to help watershed residents learn about the advantages to using cover cropping, managed rotational grazing and other methods to keep the land covered year-round.



This photo, taken on July 1, 2017, shows the Root River dumping eroded soil into the Mississippi River below La Crosse, Wis. (Photo by Ken Harkey)

1) One-to-One Conversations

From the outset, LSP staff met with farmers and other landowners in the watershed via "kitchen conversations" to talk about what was important to them when it comes to their land. The idea of seeing the land treated "ethically" was frequently brought up during these conversations. We held 57 one-to-one conversations with farmers about their values, barriers to change and what they want for the

future. These conversations not only helped guide LSP's priorities in the watershed, but served to identify farmers and landowners who were willing to share publicly their experiences with establishing continuous living cover.

In addition, many of these conversations led to referrals to natural resource agencies where technical and financial assistance could be found to address soil conservation, habitat and other management goals.

2) Field Days/Workshops

After identifying leaders in the watershed who were willing to speak in public about their goals, as well as challenges they face establishing more continuous living cover on working farmland, LSP created venues for them to share their experiences.

During the life of the initiative, farmers hosted field days and workshops on cover cropping, fencing, soil health monitoring and utilizing managed rotational grazing to improve riparian areas. LSP found that farmer-to-farmer educational opportunities were particularly effective when information sharing was set up utilizing panel discussions and question-and-answer formats.

Continued on reverse page...

Continued from reverse page...

3) Team Building

LSP created a "Cover Crops Network" which consisted of farmers who had adapted or were in the process of adapting the planting of cover crops to build soil health, prevent erosion and, in some cases, serve as low-cost livestock forage. These teams regularly visited each other's operations to discuss various techniques and challenges associated with getting more continuous living cover established. Members of these teams also shared soil health test results and attended other field days and workshops outside of the Root River watershed, which allowed them to bring back to their communities new ideas and innovations.

4) On-Farm Research

The Cover Crops Network also served as the basis for a pair of on-farm research initiatives. The first one involved growing early maturing corn varieties on six farms in an attempt to "widen the seasonal window" for getting cover crops established in the fall. In addition, Cover Crops Network members took soil samples and submitted them for analysis utilizing the Haney Test, which provides a comprehensive picture of soil biological health. They then got together at LSP's office to compare results and talk to soil health experts about putting those results in context.

5) Outreach to Non-farming Landowners

Thirty-nine percent of all U.S. farmland is rented or leased, and 80 percent of all rented farmland is owned by non-farming landlords. In the Root River watershed, at least half of farmland is rented. These statistics point to the importance of talking to non-farming landowners about ways of getting more continuous living cover on the land. LSP held workshops on developing leases that reflected a landowner's stewardship values, and created a web page and fact sheet for those interested in utilizing conservation leases.

In particular, LSP focused on outreach to women, which are a fast-growing segment of the farmland-owning population. The Root River initiative held numerous workshops for women landowners on topics ranging from ways to develop conservation leases and better communicate with renters, to soil health and the availability of government programs that support conservation measures. Discussions with women landowners often centered around how to make sure one's stewardship values were realized on land that was usually being farmed by men.

6) Media Outreach

LSP reached out extensively to newspaper and radio journalists who cover the region the Root River flows through. They represented media outlets that serve the general public, as well as targeted audiences such as farmers. LSP helped facilitate numerous contacts between reporters and farmers. We magnified farmers' voices through podcasts, blogs and *Land Stewardship Letter* articles.

7) Tool Development

LSP's Root River initiative developed several tools

for farmers and other landowners, including: a fact sheet on select farmland conservation practices and the words to describe them so that landowners can be specific with their tenants, a stewardship planning template, geographic information system (GIS) maps showing where corn and soybeans are growing in ecologically sensitive parts of the landscape, a fact sheet and web page on conservation leases, a slideshow on utilizing grazing to improve riparian areas, a fact sheet on grazing riparian areas, a bibliography on riparian grazing, and a *Myth Buster* on livestock's relationship to water. LSP also participated in a Green Lands Blue Waters/The Pasture Project webinar where staff member Caroline van Schaik talked about resources being used to promote more perennial cover in the Root River watershed via the "Women Caring for the Land" initiative.

8) Partner Engagement

LSP engaged with several public and private partners to help reach wider audiences, share expertise, develop concepts, provide resources and access meeting spaces. Partners such as Trout Unlimited, the Fillmore County Soil and Water Conservation District, the USDA Natural Resources Conservation Service, The Nature Conservancy, Grazing Lands Conservation Initiative of Minnesota, and the Eagle Bluff Environmental Learning Center were crucial to this work.

Outcomes

As a result of the Root River initiative, hundreds of watershed farmers and other landowners came to the table and made real changes to how they manage their land. During the initiative, 17 events were attended by 440 individuals, who reported 24,000 acres influenced if not directly involved in cover crops, managed rotational grazing, on-farm soil testing, stream management for fish habitat, upland management for stream health, conservation leases, and the articulation of a land ethic as the foundation to ecologically sound decisions. A Conservation Plan template provided a working framework for 23 written plans addressing 2,035 acres.

This work is being continued in the Driftless Area through LSP's Bridge to Soil Health Initiative as well as its conservation leases work, and partners continue work through their own initiatives.

Resources

- **LSP Root River initiative web page:**
<https://landstewardshipproject.org/stewardshipfood/rootriverwatershed>
- **Conservation Leases web page:**
<https://landstewardshipproject.org/stewardshipfood/conservationleases>
- **Bridge to Soil Health web page:**
<https://landstewardshipproject.org/lspsoilbuilders>