

Hay Creek Brook Trout Habitat Reconnection

Location: Lake Superior St Louis River Watershed- Hay Creek in Carlton County Minnesota

Goals

To reconnect brook trout habitat and restore fish passage along Hay Creek.

Objectives

- Develop engineering and design plans to replace two (2) undersized culverts to enable the reconnection of streams and tributaries to benefit aquatic life, improve water quality, and accommodate the changing floodplain.
- Provide options for addressing the portion of the stream that has undergone ditching just south of Hay Creek.

Habitat and Species Information

The "[Climate Change Vulnerability Assessment and Adaptation Plan for the 1854 Ceded Territory including Bois Forte, Fond du Lac and Grant Portage Reservations](#)" identifies brook trout as highly vulnerable to changing climate conditions.

Background Data

LiDAR data is available for the county through the MN Coastal program.

Previous Plans

The draft [St. Louis River One Watershed, One Plan](#) identifies Hay Creek as priority area for connectivity projects due to their cold headwaters and brook trout populations. (see page 88 , page 92, page 98 [here](#)). Further, brook trout are a culturally significant species for the Ojibwe and as such have been prioritized by indigenous knowledge systems over the years.

Current conditions

Many tributaries in this watershed have been altered by ditching or impounding the stream. Altering the stream in this way reduces habitat quality, warms waters and increases sediment pollution.

Please refer to the St Louis River One Watershed, One Plan (linked above) to learn about the current conditions of the St Louis River watershed.

Partners - Fed Agencies/GLSLCI/GL Governors & Premiers/GLC/Foundations/NGOs/Local

- Carlton Soil and Water Conservation District would be the primary partner.
- Carlton County Land Department and MNDOT are the secondary partners who will participate in the project team meetings
- MN Coastal Program
- MN DNR

It is anticipated that the design team will leverage local partners' connections with Tribal Nations who have an interest in this project, and engage them depending on their interest and availability.

CoBenefits: Coastal stewardship, wetlands, recreation/tourism/public access, etc. And result in multiple ecosystem benefit

It is anticipated that this project will have the following co-benefits:

- Protection of high-quality streams
- Reduced sediment and nutrient pollutants
- Correctly sizing culverts can mitigate impacts of climate change by reducing washouts and stream erosion during increasingly common high rainfall events. Some climate change predictions include increased rain events of over one inch of precipitation
- This goal addresses equity by protecting streams for recreation. Small streams are often the only water resource available to disadvantaged communities.
- In parts of the Thomson Reservoir, as many as 32% of people reported income less than 185% of the poverty level and 4% are people of color (MPCA Understanding Environmental Justice in Minnesota, 2016-2020 data).
- Education and outreach will be needed to increase social capacity by building trust with road authorities and private landowners.

Environmental justice needs

Previous work was conducted in St. Louis and Lake Counties. Taking up a project here will help ensure we are spreading the dollars across our area. Brook trout are a culturally significant species for the

Ojibwe. The Fond du lac tribe is somewhat involved in adjacent land projects. As such, there is potential for engagement and information sharing since they are doing similar work.

Ownership: Owned by Carlton County

Site Maps and Photos:

Hay Creek, Canosia Road



Hay Creek, St. Louis River Road



