

Project 1-1 Retrofitting Untreated Impervious Surfaces

Background: Many streams within the urban areas of Duluth were developed prior to the requirements for stormwater control and treatment.

Problem Statement: Cumulative impacts from these developments continue to impair streams, especially those within the City of Duluth. Impacts include increased spikes in temperature as well as altered hydrographs with higher flood peaks, and lower base flows. Evaluation of existing stormwater treatments within Lake Superior watersheds is lacking to help choose the best treatment methods.

Goals:

- 1. Reduce impact to trout streams from untreated stormwater runoff within urban areas.
- 2. Reduce the temperature of stormwater entering the stream by slowing runoff or holding water and releasing slowly.
- 3. Reduce flood peaks by slowing runoff and releasing slowly or infiltrating to improve base flows.

Priority: Moderate

Task Duration: 5-10 years

Potential Mechanism: CWL, GLRI, LSOHC, CPL, LCCMR

Potential Partnering Organization(s): PCA, NRRI, DNR, SWCD, USACE, Municipalities, SLRA, Sportsman's Groups

Estimated Cost: \$20M

Comments: This project should be completed after project 2-1 for maximum benefit. A demonstration project in a single watershed is recommended to evaluate effectiveness.

Special Considerations: Requires cooperation of private landowners

Accomplishments:

Measure(s) of Success: Cumulative improvement in temperature and moderation of hydrograph, improved trout populations

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<u>Vision Statement</u>: Maintain, protect, and restore healthy cold water ecosystems with relatively stable flows and a diversity of habitat for fish and wildlife to enhance our quality of life. For project information: www.lrcd.org/links/lscc projects.htm