



Project 9-4 Keene Creek Channel Restoration

Background: The lowest reach of Keene Creek was redirected out of Hallet Slip #7 through a constructed channel and into Grassy Point in 1992. The wetland on Grassy Point was the historical estuary of Keene Creek. However, the constructed channel was not geomorphologically correct, which isolated two wetland areas. Baseline habitat functions of Keene Creek from Waseca Industrial Avenue to the St. Louis River estuary have been impaired due to channelization, degradation and isolation of available wetland habitat. Impairments include loss of substrate diversity and assumed reduction in diversity of benthic macroinvertebrates, loss of stream habitat diversity and wetland function and assumed reduction in fisheries habitat value. Establishing a more natural course for the creek would reduce impacts of future erosion and open wetland areas for spawning and nursery habitat.

Problem Statement: Reduce impacts of channelization and reconnect wetlands on portion of Keene Creek just upstream of St. Louis River Estuary.

Goals:

1. Acquire a 100-ft. wide conservation easement from the St. Louis River estuary upstream for approximately 4,000 ft.
2. After acquisition, develop a management plan that will mitigate the effects of channelization on this stretch of Keene Creek.
3. Reconnect two wetland areas to Keene Creek.
4. Identify the responsible party for removing tires and other garbage deposited in the abandoned Keene Creek channel which flowed into Hallet Slip 7.
5. Reduce impacts of channelization and restore connections to wetlands adjacent to the stream from Waseca Industrial Road downstream to the St. Louis River estuary.

Priority: High

Task Duration: 1-3 years

Potential Mechanism: GLRI, LSOHC, USACE, CWL

Potential Partnering Organization(s): DNR, NRDA Trustees, MLT, SWCD

Estimated Cost: \$235,000 –\$335,000 total

- FY1 \$85,000 for easement
- FY2 \$75,000-\$125,000 for stream restoration and reconnection of wetlands
- FY3 \$75,000-\$125,000 for stream restoration and reconnection of wetlands

Comments: After acquisition of easement, conduct a habitat survey of Keene Creek from the estuary to the upstream boundary of the easement. Develop management plan that identifies means and methods for in-stream habitat restoration

Special Considerations: Identify riparian landowners.

Accomplishments: An initial evaluation of the project area was completed during the open-water season of 2005. This information is located at DNR Duluth Area Fisheries.

Measure(s) of Success:

Primary Contact: John Lindgren, DNR Fisheries, (218)525-0853

Vision Statement: 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/lsc_projects.htm