

STORMWATER MANAGEMENT PLAN FOR TWO HARBORS

PROJECT ID:

306-15-00

YEAR:

1999

GRANTEE:

City of Two Harbors

COUNTY:

Lake County

CATEGORY:

Coastal Land Use, Planning, & Development

GRANT AWARD:

\$21,249

TOTAL PROJECT COST:

\$33,345

The mission of Minnesota's Lake Superior Coastal Program is to preserve, protect, restore and enhance coastal resources for present and future generations. We provide technical and financial assistance for local communities to balance protection of coastal resources with providing residents and visitors places to work, live, and play.



FOR MORE INFORMATION:

Lake Superior Coastal Program
1568 Highway 2
Two Harbors, MN 55616
Phone: 218.834.6612
www.dnr.state.mn.us/waters/lakesuperior

SUMMARY

The City of Two Harbors received a grant to inventory, study, and plan projects to help solve erosion and flooding problems in their town.

To begin, existing watershed basin data and future stormwater runoff sources were compiled. An elevation and GPS survey of streams, storm sewer system, culverts, was conducted. The City installed two stream monitoring stations along Skunk Creek as part of a long-range monitoring effort. Stormwater runoff was sampled and analyzed for contaminants.

A computer model (SWMM) was developed to determine the feasibility of constructing detention ponds to increase runoff storage and improve runoff water quality.

The Two Harbors Storm Water Management Plan was completed in June 2001. Future actions for ordinance language changes, stormwater projects and needs for additional funding were identified in the plan.

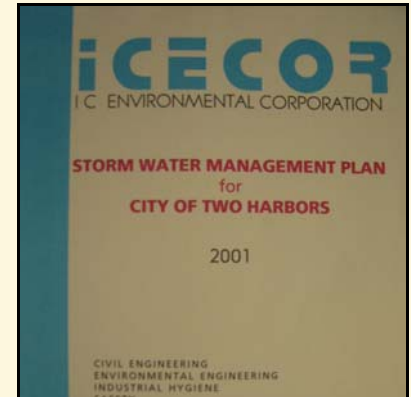


Table 1: City of Two Harbors, Area Watersheds

Assigned Watershed Name	Size
Skunk Creek	1402 acres*
Golf Course Creek	656 acres*
Pete's Creek	163 acres*
3 rd Street Storm Sewer	110 acres*
6 th Street Storm Sewer	56 acres*
Arena Drainage	74 acres*

Work begins to end flood, runoff problems in Two Harbors Watershed planning underway

BY MONICA SILEY
Two-off the town creek into existing ponds in Sully, a new project Skunk Creek that also the same along on both shores.
These are only two of the cost one project why Two Harbors decided to make a storm water management plan. On September 21, a kickoff meeting outlined the scope of the work needed to water it happen, as requested by IC Environmental. "Cooperator (CIVIL) of Skunk Creek."
The meeting, led by the project, usually 25 people who wanted with some hope that they may be able to finally see over the rain.
The plan ready for implementation by February.
This is a lake project management/development with 2,300 ft. and the plan will consist of the creek of Skunk Creek and its tributaries, as well as two other creek, one north and one south of Skunk Creek.
In October, workers will install sensor piping and remote monitoring stations, so they can continue to monitor of rainfall volume data in varying ways. This will be used to project future stormwater flow, and will be added to any data that may be available.
The monitoring equipment will be given to the city at the project end, so monitoring can continue using city personnel or volunteers.
October will also see Global Positioning System (GPS) surveying along Skunk Creek and the two adjacent streams and to lay points within the city limits. Utilization of specific location can then be provided, and storm water effects prevented.
In November, using the information they collect they will put together a Storm Water Management Model (SWMM), a computerized projection of what happens during storms. It will identify different intensity storm events, and follow the results throughout the city.
As the storm line, had an ordinance to help control water runoff. The Skunk Creek Watershed Committee will review and endorse the draft plan for emergency storm water.
Finally, a grant application will be submitted to the Lake Superior Coastal Program to help pay for implementation of the storm water.

