

LAMBERT LAKE POND & MEANDER



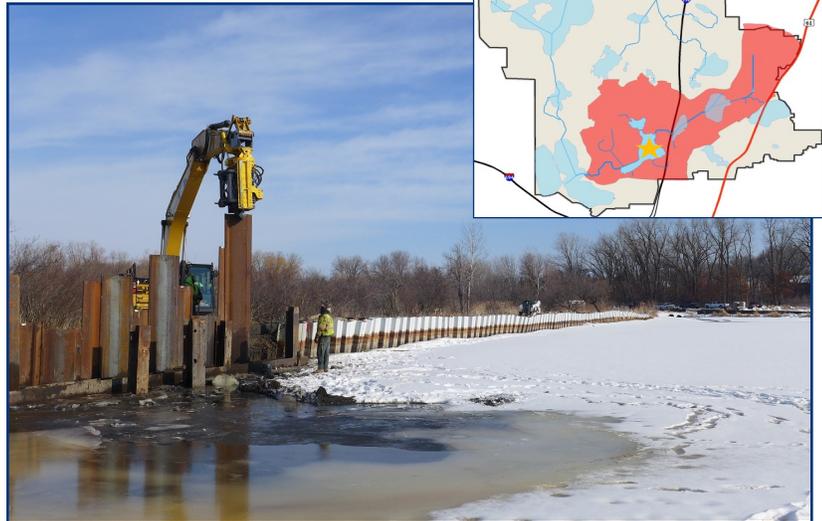
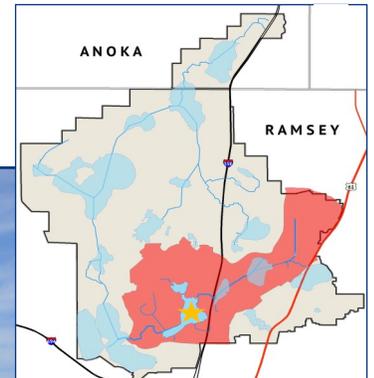
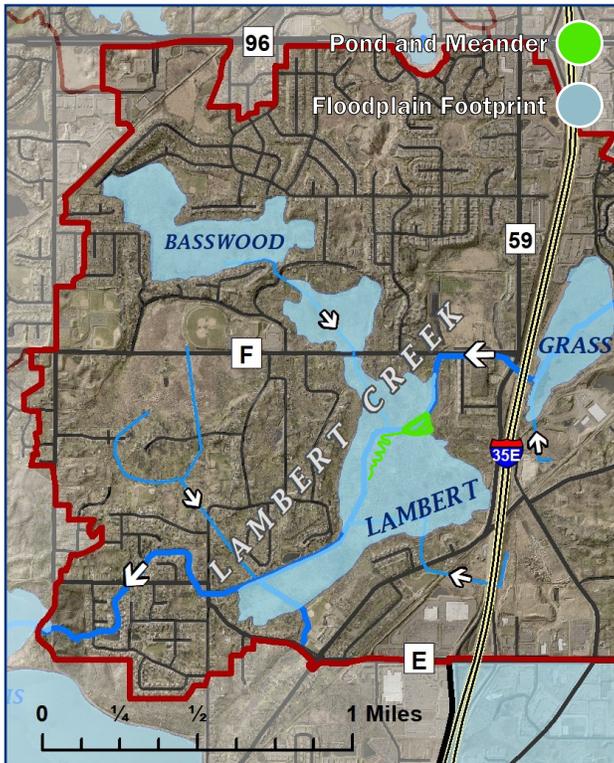
QUICK FACTS

Wetland Area	182 acres
Pond Surface Area	1.87 acres
Max Pond Depth	~6'
Meander Length	2,020'

PROJECT SUMMARY:

This project is located on Vadnais Heights City property, where it is improving a portion of Lambert Creek and a stormwater pond. It replaced an expired vinyl sheet pile wall with a steel sheet pile wall, protecting flood water storage in the system. A creek meander was added to improve access to the Lambert Lake floodplain.

LOCATION:



Above: The Lambert Lake Pond and meander project outlined in green.

Top right: Construction of steel sheet pile replacing the expired sheet pile.

Right: The newly dug meander and Lambert Lake Pond.

PROJECT PARTNERS:

- VLAWMO
- City of Vadnais Heights
- SEH engineering
- Minnesota Pollution Control Agency (MPCA)
- Midwest Floating Island
- University of Minnesota

FUNDING:

Grant funds are provided through United States Environmental Protection Agency (EPA) 319 funds administered by the Minnesota Pollution Control Agency (MPCA) with a match from VLAWMO. Loan funding consists of a 0% interest loan from the Clean Water Partnership loan program, which is funded through the Clean Water State Revolving Fund (CWSRF).

CONSTRUCTION AND RESULTS:

This project enhances water storage at Lambert Lake Pond, provides reliable access for future sediment dredging, and improves floodplain connection in this segment of Lambert Creek. The project design mimics natural floodplains, with spaces for water to pool and seep over the banks of the meander.

Slow curvature as opposed to a straight channel helps reduce erosion, deposit sediment into the floodplain, and mitigate downstream flooding. Major construction took place in January and February, 2021, and planting took place in April. A biochar filter will also be part of the completed project. Biochar is being used to help remove excess bacteria in Lambert Creek.



LAMBERT LAKE HISTORY:

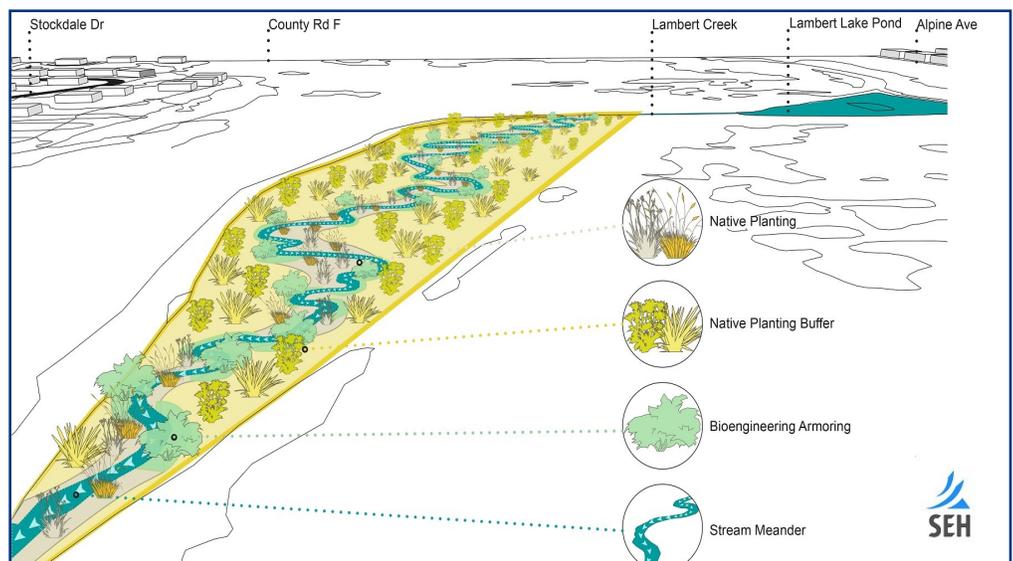
Historically, Lambert Lake existed as a shallow lake within a broader network of wetlands and streams. When the surrounding area was developed in the 1940s, Lambert Lake was drained. The storage and drainage that Lambert Lake once collected was reduced and streamlined into a ditch system.

WHY ARE FLOODPLAINS IMPORTANT?

Across the United States, a trend of channeling and ditching natural waterways has had unfortunate consequences on water resources and built infrastructure. While straight channels are effective at transporting water quickly, they sacrifice the storage space and natural sediment dispersal that floodplains offer.

Spaces such as Lambert Lake Pond offer increased resiliency along a heavily taxed ditch system.

This project included a no-net rise certificate from the Federal Emergency Management Agency (FEMA) to ensure that the changes to the wetland will not create a change in the water level.



Visit [VLAWMO.org/projects](https://www.vlawmo.org/projects) for more projects related to Lambert Creek.

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