

Treatment Wetlands at Whitaker Pond

A project for clean water

What's the issue?

Whitaker Pond reduces flooding downstream in Lambert Creek, but it also experiences stormwater pollution. Stormwater draining in from 640 nearby acres has shown to be contaminated by E. coli bacteria, excess nutrients, motor oil, and fertilizers. Because the pond drains to Vadnais Lake, supporting clean water is important for the watershed and this drinking water resource.

What's the goal?

The treatment wetlands project has two goals:

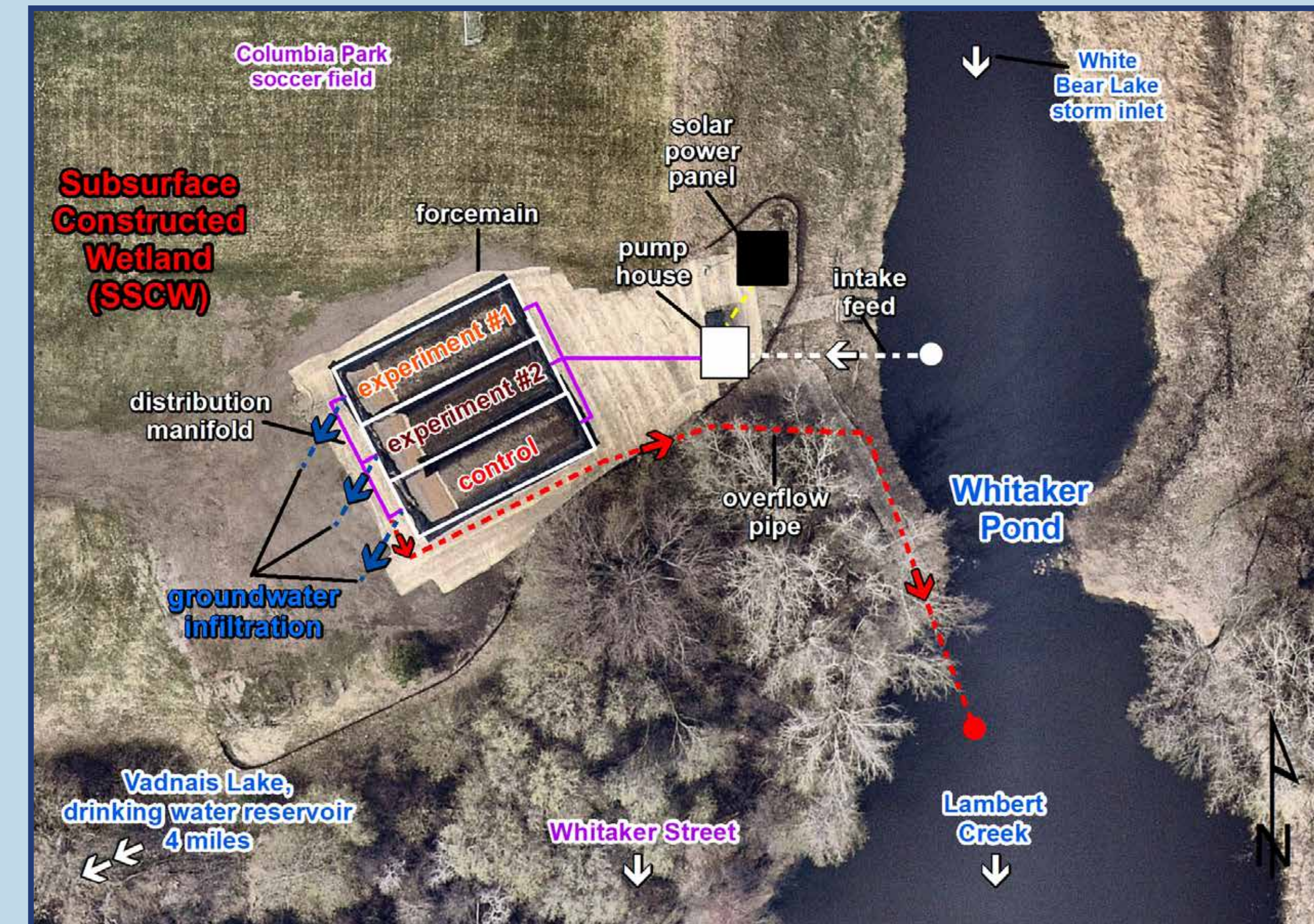
- 1) Filter polluted stormwater, removing E.coli before it gets to drinking water in Vadnais Lake
- 2) Study what type of media best filters the water.

→ Findings may lead to new ways to treat stormwater across the country.

How does it work?

A pump sends water from the pond into three "wetlands", which are 10 x 40' experimental cells with liners. Each cell contains different sorption media that removes pollutants from the water. Water leaves the cells, moves through wetland plants at the top, then goes into groundwater or back into the pond for overflow.

Sorption media are different mixtures of gravel, high-iron sand, tire crumbs, sawdust, and limestone. Peat moss is layered on the top for plants to cover wetland cells.



How did it happen?

The Vadnais Lake Area Water Management Organization received grant funds from the Environment and Natural Resources Trust Fund (ENRTF). VLAWMO and the University of Minnesota will be analyzing the results of the project, and Burns & McDonnell are the consultants. For more information and updates visit: www.VLAWMO.org

