

Hennepin County

Wetland Health Evaluation Program 2018



The Wetland Health Evaluation Program (WHEP) is a citizen volunteer wetland monitoring program that is focused on educating the public on wetland ecology and quality issues; as well as, providing local governments with wetland planning information.

WHEP is currently active in Dakota and Hennepin counties, with a number of cities sponsoring local monitoring teams. The MPCA was instrumental in developing the WHEP sampling invertebrate and Citizen Plant Wetland Assessment Guide, which were adapted from the depression wetland Indices of Biological Integrity (IBI).

In 2018, 129 volunteers donated more than 1400 hours of their time to monitor area wetlands. According to the Independent Sector, the value of volunteer time in Minnesota is \$24.69 per hour. Our volunteers contributed more than \$34,566.00 to monitor, protect and advocate for our wetlands in Hennepin County.

For the past two decades, WHEP has provided a great opportunity for Hennepin County residents to connect with the wetlands in their communities and become advocates for their sustainability. Watershed management organizations and cities contract with Hennepin County to administer volunteer water quality monitoring programs. WHEP is designed to collect data and provide hands-on environmental education experiences for volunteers. The volunteers use protocols approved by the Minnesota Pollution Control Agency to gather a variety of organisms. Their presence or absence can indicate a possible change in water quality. This biological data is often used to assess the long-term health of water and is complimentary to chemical analysis and other data used to determine water quality.

The data collected is primarily used by watershed management organizations and cities. Some organizations use the data to communicate to residents about the health of their local water resource. Some organizations have used the data to identify or track impacts of restoration efforts. They may also use the data as a historic catalog of specific organisms that have been collected and identified. For example, the county’s program has data going back 17 years on Minnehaha Creek. In many cases, organizations use the data to fulfill the education requirement for storm water management plans.



Pioneer/Sarah Watershed Management Commission			
		Invertebrate Score	Vegetation Score
PS-1 Loretto Treatment Pond	The State of MN owns this property. It has several types of ecologically significant habitat in and surrounding it. This site has a large watershed and is downstream from the new Loretto wastewater treatment facility. The data will help us to compare to what we would expect to see discharged from the treatment ponds and what we do see.	5 Poor	13 Poor
PS-2 Selstad Wetland	This site is part of a large watershed that feeds into Lake Independence. We are monitoring what is flowing off the land into the lake. The data will be used in watershed planning to target goal project areas and in our continued monitoring of the larger lakes in the watershed.	5 Poor	11 Poor
PS-3 Dance Hall Creek Wetland	This site is at the end of Dance Hall Creek just before it flows into the lake. The Sub-watershed is being closely monitored after the assessment was completed. We will begin implementing projects and data will be used to give a baseline and later for comparison to show TMDL progress and potential sources of nutrients in the lake.	9 Poor	15 Poor

DATA KEY

These metrics were developed by staff from the Minnesota Pollution Control Agency and are used in all wetland assessments as part of the Wetland Health Evaluation Program.

INVERTEBRATES**# Kinds of Leeches**

The # of Leeches present in the sample; number is higher in healthier wetlands.

Kinds of Odonata

This measures the number of dragonflies and damselflies in a sample. This number is higher in healthier wetlands.

ETSD

This metric adds the number of mayfly larvae (Ephemeroptera), caddisfly larvae (Trichoptera), dragonfly presence (D), and fingernail clam presence (Sphaeriidae). This collection is sensitive to pollution.

Kinds of Snails

This measures the number of Snails TYPES in the wetland. The higher the number the better quality wetland.

Total Invertebrate Taxa

The total number of invertebrate taxa is the strongest indicators of health in a wetland. This is an overall inventory of invertebrates, the higher the number the better diversity.

VEGETATION**Vascular Genera**

This measures the richness or number of different kinds of vascular plants.

Nonvascular Genera

This measures the richness or number of different kinds of nonvascular plants such as mosses, liverworts and lichens.

Grasslike Genera

This measures the richness of a specific type of vascular plants including grasses, sedges and related genera.

Carex Cover

This measures the extent of coverage by member of the genus Carex or sedges. Abundance increases in healthier wetlands.

Utricularia Presence

Bladderwort is a group of carnivorous plants that feed on macroinvertebrates. Its presence suggests a good condition.

Aquatic Guild

This metric measures the richness of the aquatic plants which tends to decrease as human disturbance increases.

Persistent Litter

This measures the abundance of certain plants whose leaves and stems decompose very slowly. The greater abundance means more nutrients are tied up in undecomposed plants. This will increase with increased disturbance.

