

Fleming Creek in the Matthei Botanical Gardens Fact Sheet

Site History

The University of Michigan's Matthei Botanical Gardens features 350 acres of diverse plant life, nature trails, formal gardens, wetlands, and an indoor conservancy. Fleming Creek flows through this area.

Fleming Creek is a clear, cool, and powerful stream. It was an important source of power for the first European settlement in this area. In 1824, Mr. Fleming built one of the first mills on the Huron River system. It was located on Fleming Creek very close to the current Botanical Gardens.

Fleming Creek is home to the locally endangered redbreasted dace after a successful translocation by fishery scientists. It looks like a minnow and is marked by broad red striped coloring on its sides. Like all dace, the fish has tiny scales and looks very smooth.



Photo credit: HRWC

Watershed Information

Area of land draining to this site: 28 mi²

Local government: Washtenaw Co.; Salem, SuperiorTwn.

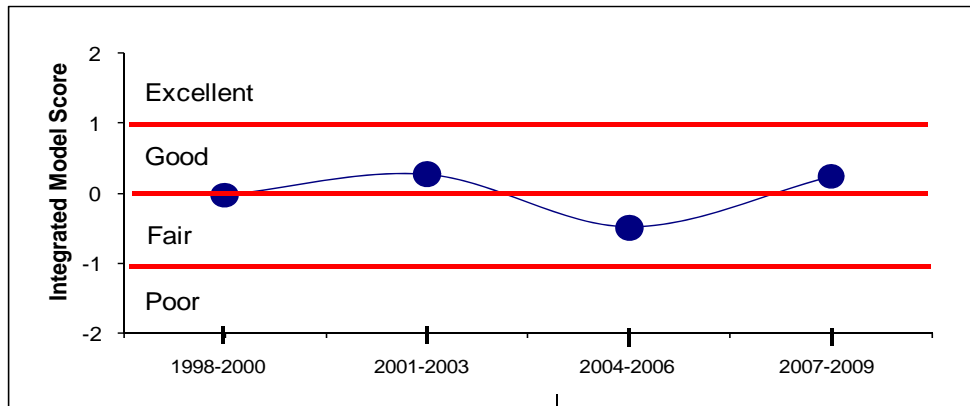
Watershed land use: 25% Agriculture, 29% Urban, 11% Forest, 26% Open, 8% Wetland.
10% of this land is impervious surface



Google 2009

Site Rating: Good

Each site is rated as one of the following categories (going from worst to best): poor, fair, good, and excellent. This rating comes from an integrative model that is based on the last 3 years of insect data, the most recent habitat data, stream temperature, and stream size.



Insect Community

First Monitored: 9/19/93

Times monitored: 29

From 2007-2009, the average number of insect families found at this location are:

Total Insect Families: 13.3

Sensitive Insect Families (quickly affected by pollution): 1.3

Mayfly, Stonefly, and Caddisfly Families: 5.7

Stonefly Families (Winter Stonefly Search): 1.3

Insects commonly found from 2007-2009:

Capniidae*- small winter stonefly

Perlodidae*- patterned stonefly

Taeniopterygidae*- winter stonefly

Baetidae- small minnow mayfly

Heptageniidae- flathead mayfly

Leptophlebiidae*- prongbill mayfly

Corixidae- water boatman

Gerridae- water strider

Veliidae- short-legged strider

Hydropsychidae- net-spinner caddisfly

Philopotamidae- finger-net caddis

Aeshnidae- damner dragonfly

Calopterygidae- broad-winged damselfly

Coenagrionidae- narrow-winged damselfly

Elmidae- riffle beetle

Gyrinidae-whirligig beetle

Chaoboridae- phantom midge

Simuliidae- black fly larva

Tabanidae- deer fly larva

Tipulidae- crane fly larva

*Sensitive Family

Stream Habitat

Water Temperature (Summer 2009):

Average weekly minimum: 63 °F

Average weekly maximum: 70 °F

Conductivity: 777 μS

This is a 3 year average of samples taken 1-3 times per year. 800 μS or lower is considered normal.

Measuring and Mapping Program Times monitored: 3

Measurements and Observations from most recent event held on 8/3/09:

Avg. Depth (ft): 0.5

Max Depth (ft): 1.4

Avg. Width (ft): 18

Bank Height (ft): 1.6

% Fine Substrate: 24

% Coarse Substrate: 67

% Riffle Embeddedness: 50-75

% Banks Bare: 7.5

Bad Appearance or Odor: No

Overall habitat score (100 max): 80.5