

Glossary

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Glossary of Terms

Acceptable Ecological Quality

Indicates that the quality of the site is about what we expect for a healthy site of its characteristics (drainage area, slope). The range included in this "acceptable" designation includes sites that are only minimally acceptable as well as good quality sites.

Alluvium

The sand, silt and gravel deposited by running water. Alluvial channels flow through bed and banks comprised of unconsolidated alluvium.

Conductivity

An indication of the amount of dissolved ions (for example: salt, metals) present in the water. It is determined using a meter that measures how easily electricity can flow through the water sample. If the average conductivity measured at a site is 800 microSiemens (μS) or less, it is considered natural for stream water. Conductivity over 800 μS is considered excessive and may indicate the presence of toxic substances (Realize that many toxins, although harmful, are not measured by conductivity). One source of elevated conductivity is development. At some of our sites with high levels of development and impervious surfaces (roads, driveways, roofs), rainwater washes chemicals, such as fertilizers and pet wastes, from the developed landscape into the creek.

Dry Prairie

An open area dominated by grasses but has well-drained soils that can even support a few trees.

Ecological Quality

Determined by the biological and physical quality of the site. The biological quality includes the diversity of insect families, EPT families and Sensitive families. The physical quality is determined by "measuring and mapping" assessments of habitat quality. These assessments involve examining characteristics of the stream such as the stream banks, measuring the stream widths and depths, and assessing what type of material (such as sand and gravel) is on the stream bottom. When interpreting the biological and physical quality, we expect more diversity at a site with a larger drainage area and a steeper slope.

EPT Families

Insects in the orders Ephemeroptera (the mayflies), Plecoptera (the stoneflies), and Trichoptera (the caddisflies) generally evolved in streams with high levels of oxygen and/or faster flowing waters. As a result, these insects are particularly sensitive to factors that reduce oxygen, reduce flow, increase temperature or otherwise raise metabolic rates.

Families

A taxonomic grouping of similar insects (families are groups of similar genera which are groups of species).

Insect Families

A taxonomic group of insects that, when counted and identified, give us our best overall picture of the insect community's health in a certain area of study. Because there are about 77 insect families in the Huron, this indicator can provide a good measure of the ecological condition of the watershed.

Kames

A landform of steep hills created where there were holes, crevasses, or low spots in the glacial ice. As the glacier melted, the water carried sediment into these openings. This sediment was "sorted" by the water, meaning that the heavier material (gravel and sand) was deposited while the lighter material (clays and silt) was carried off downstream. When the glacier finally retreated, these deposits remained.

Macroinvertebrate Diversity

Indicates the number of macroinvertebrate groups (including insects, clams, leeches, etc.).

Moraine

A landform of moderately-sloped hills created by the movement of a glacier. As glaciers moved inland during an ice age, they scraped up a mixture of gravel, sand, clay and silt. When the glaciers advance stalled and the ice began to melt and retreat, the materials deposited at the glacier's melting front built up a ridge, known as an end moraine, marking the furthest extent of the ice advance.

Old Field

An area that had once been plowed and worked up as an agricultural field. Once abandoned, quick-growing, sun-loving grasses and shrubs re-colonize the area.

Outwash Plain

A landform created as the glaciers melted, and huge rivers of meltwater were formed. These rivers carried sediment away from the glaciers. Much like with the development of a kame, the heavier material settled out first, filling in the low areas, while the clay and silt were carried further downstream into lakes. In this way, broad large expanses of gravel and sand were created.

Oxbow

A broad, curving arc in a stream or river. As this curve develops, it may become so extreme that the beginning and end of the oxbow join, creating a shortcut in the channel. Over time, the new channel deposits sediment that completely cut off the oxbow, leaving a C-shaped oxbow lake.

Sensitive Insect Families

This indicator counts the number of families that have been identified in scientific studies as particularly vulnerable to organic pollution (such as fertilizers, human or animal waste). In selecting these families we follow the published protocol of William Hilsenhoff from the University of Wisconsin.

Watershed

The area of land that drains into a common waterway. Parts of seven counties in southeast Michigan drain into the Huron River and make up its watershed. The Huron, in turn, drains into Lake Erie and is part of the Great Lakes Watershed.

Wet Meadow

An open site with few woody plants (trees and shrubs). Standing water is present in spring and early summer but not year round. However, the soil always stays quite moist.

Wet Prairie

An open area dominated by grasses but often inundated with water in the spring.