



Place of the small waters -
Nippersink Watershed

Nippersink Creek watershed is the largest tributary to the Fox River, draining 137 square miles in Illinois, as well as another 50 square miles in Walworth County, Wisconsin. In the Algonquian Indian language, Nippersink means “place of the small waters” due to the profusion of small springs feeding the creek.

Nippersink Creek is among the finest streams in Illinois with the main stem rating a “B” on the Biological Stream Characterization score, while the North Branch is given an “A” rating. Not surprisingly, the highest quality reaches of Nippersink Creek are in rural portions of the watershed, or within the large tracts of riparian lands where the Conservation District, the Land Conservancy of McHenry County, other agencies and concerned landowners have been implementing stream corridor protection and restoration activities. Forty-six McHenry County Natural Area (MCNAI) sites are contained within the watershed.

Since all of McHenry County is dependent on groundwater, extracted from both shallow and deep aquifer wells as its sole source of drinking water, protection of surface water resources and groundwater recharge areas must occur to ensure a safe, sustainable, and adequate supply of drinking water into the future.



The Nippersink Creek Watershed Plan

The first Nippersink Creek Watershed Plan was completed in 1998 and identified potential sources of water quality impairments. This plan set the stage for increasing awareness of the significant value of Nippersink Creek and the need to protect it. The plan gave residents an overview of the problems facing the watershed and potential solutions. However, work was needed to make it an effective tool in guiding implementation efforts and comprehensively addressing groundwater quality degradation, loss of groundwater recharge areas, changes in flow regimes, fragmentation of wildlife habitat, and the loss of native plant communities.

The New & Improved Watershed Plan
(View at www.nippersink.org)

The Nippersink Creek Watershed Planning Committee, under a Section 319 grant provided by the U.S. Environmental Protection Agency/IL Environmental Protection Agency, worked with Illinois State University to complete a survey of Nippersink Watershed residents. The findings from the survey will help future outreach efforts and to encourage stakeholders to work cooperatively to implement the new watershed plan.

The new plan is now completed. The next step is to raise awareness of this valuable resource and rally support toward implementing change. McHenry County Conservation District encourages residents to review the plan, take a hard look at your own property and see how you can make a difference.

Keys to a Healthy Watershed

- Wetlands must be maintained for their ability to store floodwaters and act as buffers to Nippersink Creek. Undeveloped land buffers of at least 100 feet along each side of the stream are recommended.
- Open space must be incorporated into developments in order to supply land where rain and snow can naturally soak into the ground, replenish our drinking water source, and prevent increased runoff from overwhelming Nippersink Creek and cause flooding and bank erosion.
- Impervious surfaces like roofs, parking lots, driveways and streets where water cannot soak into the ground also cause runoff that can overwhelm creeks and streams and cause downstream flooding. Oil and pollutants that accumulate on the paved surfaces are then washed into the stream as well with the increased runoff.
- Stormwater should be routed to vegetated swales where it can be naturally cleansed rather than channeled as polluted runoff.
- Runoff also causes streambank erosion where fine sediment is washed into the creek, covering the natural sand and gravel streambed – home to numerous aquatic insects, the base of the creek’s food chain. Streambank stabilization can be achieved using vegetation and rocks. USDA Natural Resource Conservation Service can help analyze streambank erosion problems and offer solutions.
- Soil erosion control measures on construction sites is crucial, such as silt fences, mulching and rock dams.



L-Mussels depend on good water quality to survive and reproduce. M-Wood duck (m) as well as other water birds depend on wetland habitats. R-Shell of a dragonfly nymph. Dragonflies spend their early life stages entirely in water.

- Cropland practices, such as minimum tillage, grassed waterways, streamside filter strips and terraces, are all practices farmers should establish on their lands.
- Septic systems must have proper placement and design to fit the soils, geology, and hydrology of the watershed. Regular upkeep of septic systems is key to maintaining the water quality.

Make your Property Watershed-Friendly

- ~ Stabilize your Shoreline
- ~ Buffer Water Bodies
- ~ Naturalize your Yard
- ~ Minimize use of Salt
- ~ Maintain your Septic
- ~ Manage Wastes Well
- ~ Preserve your Floodway
- ~ Protect Wetlands
- ~ Remove Invasive Plants
- ~ Minimize use of Garden Chemicals
- ~ Watchdog your Watershed

What is a watershed?

A watershed is the land that water flows over and through on its way to a stream, river or lake. Wherever you live, you are a part of a watershed. A large watershed has many subwatersheds where each subwatershed is the land that drains to a specific water body.

The Illinois River watershed is a subwatershed of the Mississippi watershed. The Fox River watershed is a subwatershed of the Illinois watershed. The Nippersink Creek watershed is a subwatershed of the Fox watershed and so on to the smallest creek’s watershed.

How do watersheds work?

Under natural groundcover, most of the rain and snow soaks into the ground with little surface runoff. Water that soaks into the ground is cleansed as it travels overland through vegetation and wetlands, and replenishes aquifer sources. Streams, lakes and wetlands are fed by groundwater from this infiltration. Abundant wetlands provide storm water storage during times of high rainfall, preventing flooding.

Where is the Nippersink Watershed located?

The western edge of Nippersink Creek watershed is formed by the Marengo Ridge moraine, which forms a major divide between the Fox River system and the Kishwaukee River system. From its headwaters in northwest Alden Township, Nippersink Creek flows to the southeast to Wonder Lake, and east towards the Fox River/Chain O’ Lakes. Nippersink Creek joins the Chain O’Lakes near US Route 12, where Nippersink Lake connects with Pistakee Lake. The North Branch of Nippersink Creek drains areas of Walworth County and Kenosha County in Wisconsin before joining the main channel between Richmond and Spring Grove. The southeastern half of the watershed, includes the communities of Woodstock, Wonder Lake, Spring Grove, Richmond, Greenwood, and Ringwood, while the northwest half are the Village of Hebron and Genoa City in Wisconsin.

Nippersink Creek Watershed at a Glance

- Located in northeastern Illinois and southern Wisconsin
- The largest tributary to the Fox River, draining 137 square miles in Illinois and about 50 square miles in Wisconsin.
- Among the finest of Illinois streams. Surveys for the presence of pollution-sensitive fish found that the main stem rates as a ‘B’ quality stream and the North Branch received a ‘Class A’ ranking.
- Home to at least 21 animals and 30 plants listed as Illinois endangered or threatened species.
- Contains 46 McHenry County Natural Area Inventory Sites quality upland, wetland and reaches of stream which are remnants of the region’s original natural diversity.
- Offers one of the best river trails for canoeing and kayaking in NE Illinois.
- Named by Native Americans as the “Creek of Little Waters” for its many springs

