



Restoring the Water Quality of Chippewa Lake

by Isaac Smith, Planning and Operations Manager, Medina County Park District

Chippewa Lake is Ohio's largest natural inland glacial lake, located just south of the continental divide in the Ohio River Basin and in the heart of Medina County. The 330-acre lake began its human connection as a hunting ground for Native Americans in the Chippewa Valley and later became a popular picnic ground and leisure destination as the home of Chippewa Lake Amusement Park. Lake cottages and boat docks became a prominent feature of the landscape during this time. Despite the closure of the amusement park in 1978, Chippewa Lake has continued to be a recreational destination — but soon that will come with a twist.

Although Chippewa Lake had been privately owned for much of its recorded history, it had always been identified as an iconic recreational opportunity. During its infancy, Medina County Park District (MCPD) published its first park district master plan,

conveniently in 1978, and it clearly highlighted Chippewa Lake's ecological, cultural, and historical significance and identified the importance of the recreational opportunities that the lake provides. Following the adoption of this master plan, the park district began to strategically acquire land within the approximately 14,000-acre watershed of Chippewa Lake, ultimately acquiring the lake in 2007 and the former amusement park site in 2020.

Like many park districts in Ohio, MCPD employs staff with natural resource expertise, and following the acquisition of Chippewa Lake it became apparent that the lake was suffering from a health issue. Observations of a "scum" on the surface of the lake were made, and a water sample tested in 2014 indicated low toxin levels attributed to cyanobacteria, the blue-green algae that infamously bloomed in the

western basin of Lake Erie in 2014. This was later confirmed in 2017 when the park district was notified by the National Oceanic and Atmospheric Administration (NOAA) that a harmful algae bloom (HAB) had been detected on Chippewa Lake. This marked the first time that the park district had issued a public health advisory for the lake.

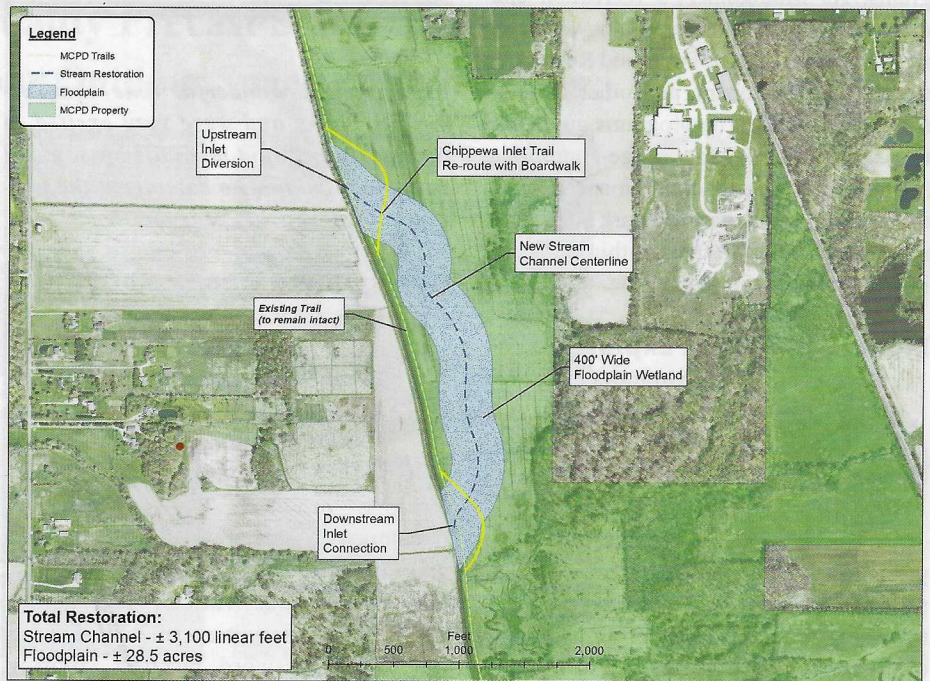
The source of the cyanobacteria and HABs can be attributed to the land use surrounding Chippewa Lake. Many of the floodplains and wetlands within the Chippewa Lake watershed have been drained and converted to agricultural land. Additionally, housing developments, which come with manicured and fertilized lawns, have exploded in Medina County as the population has grown 61.26 percent between 1980 and 2020. Chippewa Lake serves as the catch basin for it all. A proactive approach to addressing the health of the lake was necessary in order

to prevent future HABs. In 2017, the park district partnered with the Save the Lake Coalition, a group of local volunteers with a vested interest in improving the water quality of Chippewa Lake, to seek solutions to the HAB problem.

A short-term “solution” to the HAB problem was found through an experimental application of a new product that was applied in 2019. It treated the existing cyanobacteria within the lake, allowing the lake to remain advisory-free following its application. However, the heart of the problem continues to rest in the lake sediment and the nutrients flowing into the lake.

Over the years MCPD has worked to offset the impacts to water quality within the Chippewa Lake watershed through restoration of wetlands and streams that flow into the inlet channel of the lake. Outside funding through the Clean Ohio Conservation Fund for land acquisition and creative use of the Ohio Environmental Protection Agency 319 program and wetland mitigation banking facilitated many of these restoration projects. Although substantial, more restoration work is necessary to address the nutrient issue that feeds the HABs of Chippewa Lake.

In 2020, MCPD embarked on an ambitious partnership with the Ohio Department of Natural Resources (ODNR) through the state’s H2Ohio program to create more than 50 acres of wetlands spread across three locations within the Chippewa Lake watershed. The state awarded \$1.52 million toward the project, which will combine traditional wetland creation with a creative endeavor to divert the engineered and channelized inlet for Chippewa Lake through 3,000 linear feet of new, sinuous floodplain with restored wetland habitat. The project will reroute portions of one of the first multiuse paths in Medina County, the Chippewa Inlet Trail, with sections of boardwalk that will further remove barriers to the floodplain for the inlet channel. Another portion of the project will create approximately 2 acres of wetlands in combination with paddle-craft access,



furthering the recreational legacy of Chippewa Lake while simultaneously addressing the health of this significant cultural and natural resource.

We’ve given ourselves until December 2023 to complete our H2Ohio work at Chippewa Lake. Watch for project updates on MCPD’s website and social media channels.