HURON RIVER INITIATIVE HELPS BELLEVILLE LAKE & SAVES MONEY

Many people do not realize that Belleville Lake is not a natural lake system; it is actually an impoundment on the Huron River formed by the French Landing Dam. Because of this fact, Belleville Lake is not only subject to land use activities that occur locally, but upstream land uses also influence it. The Huron River system flows through Southwestern Oakland County, Southern Livingston County, Northern Washtenaw County, the cities of Ann Arbor, Ypsilanti, and finally Ford Lake; before ever reaching Belleville Lake. These influences make it essential for Van Buren Township to work together with the other stakeholders in the Huron River watershed in order to address the water quality concerns in Belleville Lake.

A good example of collaboration among stakeholders is the Middle Huron River Watershed Initiative (MHRWI). The Initiative is a partnership between the State agencies, Universities, local governments, and private companies; coordinated by the Huron River Watershed Council (HRWC). The Middle Huron geographic area covers nearly 300 square miles, 16 Townships, 3 Cities, 3 Villages, and 2 Counties; roughly between Chelsea and Van Buren Township. The Initiative is now in its 7th year and has made some real-world improvements.

A main concern in the Middle Huron River Watershed is the nuisance algal blooms that occur in the summer months in Ford and Belleville Lakes. These blooms impair recreation activities such as swimming and water skiing and are a sign of poor water quality. The blooms are triggered by high phosphorous levels in the River and Lake waters, which originate from both point sources - discharges out the end of a pipe; and non-point sources - polluted runoff from residential lawns, pavement, agricultural fields, and many other scattered sources. Under the federal Clean Water Act, Total Maximum Daily Load (TMDL) regulations, the Michigan Department of Environmental Quality (MDEQ) was required to determine the phosphorous levels that would restore water quality in the Lakes. The TMDL study, completed in 1996, resulted in an objective of 50% phosphorous reduction.

Rather than submit to costly new regulations from the MDEQ, the communities within the Middle Huron River Watershed proposed a voluntary agreement in which they would work together with point and non-point source pollution generators to reduce the amount of phosphorous entering the Rivers and Lakes. The point sources, which are comprised of mainly municipal wastewater treatment plants, have agreed to install new technology to remove phosphorous. A few of the waste water treatment plants have already completed upgrades and are starting to see reductions in phosphorous output. The non-point source partners, like Van Buren Township, have agreed to work with their residents to reduce the level of phosphorus that runs off in the storm water.

Because non-point sources of phosphorous involve so many different land uses and activities, it is very difficult to demonstrate that small, individual actions can influence the water quality of the River and Lakes. For example, it is nearly impossible to show a Van Buren Township homeowner that by choosing a low or zero phosphorous fertilizer for their lawn, it will improve the water quality of Belleville Lake. Similarly, it is difficult to justify the time and effort of parking lot sweeping to a small business operator. However, if you multiply these little changes by over 525,000 residents in the Huron River Watershed, it can make a big impact.

Recently, the U.S. EPA awarded a three-year, $750,000 grant to the University of Michigan researchers who are collaborating.
with the Middle Huron River Watershed Initiative. The EPA is taking a fresh look at the Middle Huron River Watershed in an effort to develop new techniques to reduce nutrient levels and the associate algal blooms. Researchers currently are conducting their first field season of intensive sampling at 12 sites along the Middle Huron from Zeeb Road in Ann Arbor to Haggerty Road in Van Buren Township. They are probing the chemistry of the River system plus analyzing interactions with weather and water flow.

Dr. John Lehman, Professor of Ecology and Evolutionary Biology at the University of Michigan is heading up the project. The research team includes faculty, students, and staff from the College of Literature, Science and Arts and the School of Public Health. Van Buren Township is helping with the project by providing access to sampling sites on Belleville Lake and some in-kind services. Throughout the summer and fall, Van Buren Township staff collected weekly samples at the French Landing Dam and supplied them to Dr. Lehman’s lab for analysis.

Through the watershed-wide efforts of the Middle Huron Watershed Initiative and encouraging small, individual changes by our residents and businesses at the local level, Van Buren Township hopes to maintain Belleville Lake as a safe, healthy recreational centerpiece of our community.

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