

Shiawassee Conservation District advances Shiawassee River Improvements

Since its establishment in 1948, the Shiawassee Conservation District has been involved in the restoration of the Shiawassee River. The Conservation District has been the leader in an extensive cooperative watershed-scale partnership aimed toward restoring the Shiawassee River. This effort gained momentum in the year 2000 when the District received a watershed planning grant. Since then, the District's conservation efforts have increased and multiplied, resulting in significant decisions and positive changes with many more advancements planned for years to come benefitting the Shiawassee River.

This fall of 2013, the Conservation District completed yet another erosion control project in the Shiawassee River Watershed. This time the District addressed the severely eroding Townson Drain that deposits all of its water (and everything contained within the water) directly into the Shiawassee River. The District completed this highly successful project by responding to natural resource concerns of landowners, working closely with a wide array of partners, and by conducting a thorough inventory of the watershed.

The task of restoring water quality in the Shiawassee River is immense. The Shiawassee River is 110 miles long and drains over 742,000 acres to the Saginaw Bay with nearly 200,000 people depending on the watershed for their livelihood. To help plan for the enormous task of water quality restoration in the Shiawassee River, the Shiawassee Conservation District wrote the Mid-Shiawassee River Watershed Management Plan, approved by the Michigan Department of Environmental Quality (DEQ) in 2002. The District utilized an extensive list of local partners to compile the plan, ensuring that all watershed stakeholders take

ownership of restoring the Shiawassee River. This comprehensive document focused on three unique sub-watersheds located entirely in Shiawassee County and is intended to be a practical tool with specific recommendations of practices to improve and sustain water quality. By the end of 2008, the District had used this plan to secure funding to implement best management practices, annually preventing 838 tons of sediment, 1,075lbs of phosphorous and 2,497lbs of nitrogen from entering the Shiawassee River. In addition, the District heightened awareness of issues affecting the watershed through education, including workshops, literature, and a historical perspective of the river.

A watershed management plan is intended to be a "living document". As conditions change over time in a watershed, the plan must be reexamined and revised to reflect goals that have been achieved or not met. In 2009, the District set out to update the 2002 approved Mid-Shiawassee River Watershed Management Plan. The updated plan includes a larger coverage area and new monitoring information, and meets updated requirements set forth by U.S. Environmental Protection Agency. To examine conditions of the expanded watershed, the Shiawassee Conservation District conducted a detailed stream survey, walking 81.5 miles of drains and ditches. A steering committee composed of watershed stakeholders directed the District in revising the implementation and sustainability strategies. The updated Watershed Management Plan was approved by DEQ in 2011 and was instrumental in the Shiawassee Conservation District receiving a grant from the Great Lakes Basin Program for Soil Erosion and Sediment Control coordinated by the Great Lakes



Photo taken of the Townson Drain before rehabilitation in 2008 by the Shiawassee Conservation District.



Photo taken of the Townson Drain after rehabilitation in 2013 by the Shiawassee Conservation District.

Commission (GLC) in 2010. This grant brought \$536,000 to Shiawassee County to focus on sites identified in the watershed management plan to address erosion issues and help improve the water quality of the Shiawassee River.

The Townson Drains extensive erosion was one problem site addressed through this grant. The Townson Drain flows through and drains agricultural land before it outlets through a residential area, and then empties into the Shiawassee River. Erosion localized in the outlet portion of the drain has contributed a considerable amount of sediment to the Shiawassee River and has eroded away the properties of several landowners. The Shiawassee

Conservation District became aware of the urgent nature of the issue when landowner Kevin Smith approached the District with his concerns of land loss due to erosion. “I was concerned about the potential loss of a large oak tree which was being undercut by erosion and about the additional erosion which would result if the tree was to fall,” said Mr. Smith. He continues on to

say, “I have learned so much throughout this project working with the dedicated staff at the Shiawassee Conservation District. I appreciate all of their hard work and commitment throughout the entire process, as well their willingness to keep myself and other landowners who were personally affected by the construction updated of the progress.”

The affected portion of the Townson Drain is not classified as a county drain, therefore the ambitious task of erosion stabilization would have been the responsibility of the adjacent landowners, rather than the county. Realizing the burden this would have placed on the landowners, the District wrote and received the grant from the GLC to repair the eroding drain. “The extensive stream bank repairs would not have been



Photo taken after rehabilitation in 2013 by the Shiawassee Conservation District.

possible without the efforts of the Shiawassee Conservation District,” said Shiawassee County Drain Commissioner, Tony Newman. “I have partnered with the District on several other projects, and their dedication to protecting Shiawassee County’s natural resources with best management practices and providing education is outstanding.”

Rehabilitation of the Townson Drain was accomplished by incorporating characteristics of a natural stable channel to improve channel stability, significantly reduce erosion rates and improve water quality. This, in turn, saves an estimated 176 tons of soil per year from dumping into the Shiawassee River, which is equivalent to 15 dump trucks full each year. Improved water quality and stream stability of the Townson Drain provides excellent habitat for aquatic organisms in the drain itself and the Shiawassee River. Furthermore, the adjacent landowners will no longer have to worry about how many more feet of their property will be lost due to the stream bank erosion. “I appreciate the dedication that the Shiawassee Conservation District has for

protecting Shiawassee County’s natural resources,” said Representative Ben Glardon. “Their commitment to the Shiawassee River helps to improve Shiawassee County’s economy and the quality of life of its residents.”

The Townson Drain project is the latest endeavor completed as part of the Shiawassee Conservation District’s Mid-Shiawassee River Watershed Restoration Project, but it isn’t the last. This project is a noteworthy step towards one of the District’s goals of improving the overall water quality of the Shiawassee River. For further information on current and upcoming efforts on this or other District programs, contact their office located in the USDA Service Center at 1900 S Morrice Road, Owosso at (989) 723-8263 ext. 3.



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