

THE TOLLGATE DRAINAGE DISTRICT SEWER SEPARATION PROJECT

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The Tollgate Drainage District Sewer Separation Project encompasses a watershed of 234 acres, 550 plus residential homes, over 10 commercial properties, 1,000 plus apartment units, and 4 governmental agencies. This project separated a combined sewer system and created a wetland detention basin for storm water. The wetland also serves as a wildlife refuge, community learning center, and a focal point to bring the community together through public outreach.

In 1997, Lansing Township petitioned the Ingham County Drain Commissioner to find an outlet for their storm water, as the traditional method of storm water conveyance proved to be too costly and unacceptable for the Township. An alternative location for the outlet was Fairview Park and the Groesbeck Municipal Golf Course.

Many challenges faced this project during all phases, including: timing and coordination of schedules for the city sewer separation project; holding public meetings involving reluctant stakeholders; inter-governmental agency conflict resolution; and general misinformation. Other challenges came with the implementation of a public outreach program to educate the residents. In addition, bioengineering challenges were met to manage, process, and naturally treat urban runoff. Multi-use design criteria had to be established for the following activities: golf; low impact recreation; wildlife habitat improvement; and the management of storm water quality and quantity. Finally, the financial backing had to be established.

Informational sessions were held, and partnerships with local and regional environmental groups were made to reach a broader audience through public outreach. Partnerships with local teachers and university professors were made to write a curriculum for students. Brown bag lunch sessions and tours facilitate education for service groups. The Tollgate Wetland serves as a living classroom.

The new drainage system on the front nine of the 19 acre Groesbeck Municipal Golf Course is designed to store, manage, move and clean storm water from the Fairview subdivision. One of the three ponds used for irrigation on the golf course is tied into the wetland system. Pond water nutrient levels will be tested before irrigation, and taken into account in the overall fertilizer application budget. This practice will reduce nutrient loading into the ponds and will decrease golf course maintenance costs. The golf course holding ponds are essential to keep the fairways from flooding in times of high rain, which in effect keeps the course open longer and attracts more golfers.

The Tollgate Drainage District Sewer Separation and Wetland Detention Basin project not only created a storm water outlet, it created a sense of community for the residents; new and innovating ways to manage public utility projects; and 20 acres of urban wetlands.