

## CITY OF PORTAGE STORMWATER AND TRAILWAYS FACILITY

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**Project Costs:** \$4.7 million; K&A = \$250,000

**Project Completion:** 2002

Anticipating Phase II Storm Water regulations and a TMDL, the City of Portage took proactive steps to address the pending need for water quality improvement. In a unique project, a regional stormwater treatment system for Consolidated Drain #1 (Figure 1) has been constructed, which will significantly increase the quality of life for city residents and biota in Portage Creek while meeting and exceeding regulatory requirements. To help finance such a unique project, applications for Clean Michigan Initiative and Clean Water Act Section 319 grant monies were approved.



Figure 1. Existing condition of Consolidated Drain # 1

This new storm water treatment facility is integrally linked to a recreational trailway system (Figure 2) that doubles the length of existing trailways in the city, provides treatment for runoff from 463 acres within the highly commercialized urban core and targets 80% pollution removal rates. As designed the new facility substantially enhances and improves flood protection. This regional facility allowed for reclamation of several private, poorly maintained and failing on-site detention basins that were eliminated. These replaced basins were ineffective at pollutant removal and flow moderation.



Figure 2. Rendering illustrating renovated drain and trailway.

The consolidated drain had emptied directly into Portage Creek, a designated coldwater trout stream, seriously impacting the fishery and accompanying habitat.

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The new facility is municipally-owned and maintained by the City of Portage. Its design integrates several large-scale stormwater treatment options, including a sediment pond, wet detention basin and both existing and created wetland treatment areas. More than a mile of accessible scenic trailways, bridges and overlooks, integrated into the site plan, now connect major retail and recreational facilities. Trailways also provide limited access to the 25 acres comprising the stormwater treatment area. Wildlife habitat, a restored, more-meandering stream corridor to maintain more favorable cold water characteristics, the recreational access, and several environmental education stations provide unusual public amenities within the core of an urbanized area.

As created, the site provides opportunities for local group participation in ongoing research and investigations of this stormwater treatment approach. The city also received a separate 319 grant that allowed for the installation of Isco automated sampling devices at several points within the project area. This allowed for K&A to monitor impacts from early to post construction. These monitors were removed in September 2002. K&A continues efforts as part of a long-term monitoring program established to evaluate the effectiveness of the treatment processes involved.

Construction on this facility was largely completed in 2001 with the stormwater facility coming on-line in July 2001.



**Figure 3. Panoramic view of the completed Regional Stormwater and Trailways Facility.**