



## City of Westland Outfall Inventory and Storm Water Study

7/15/2002 - 8/31/2004

This project provided the City of Westland planning tools to assist with meeting storm water management goals. The project identified storm water problems and concerns within the City, which is located in the Middle and Lower Rouge River watersheds.

Orchard, Hiltz & McCliment, Inc. (OHM), conducted an extensive field inventory of water bodies within the City, identifying: channel characteristics, degree of erosion, location and condition of discharge outfalls and culverts, in-stream obstructions, and locations of natural features. An additional field inventory located wetlands, outfalls, and storm water storage basins outside the stream corridor.

Ralph Tyler Companies created a hydrologic model to determine the City's impact on the Middle and Lower Rouge Rivers. The model depicted drainage patterns within the City, and determined the amount of flow the City contributes. The model estimated the improvement in the Rouge River if the City were to implement various storm water storage Best Management Practices (BMP) alternatives.

OHM created a GIS system containing all the data collected, and, in its final report to the City, recommended other BMPs for improving water quality.



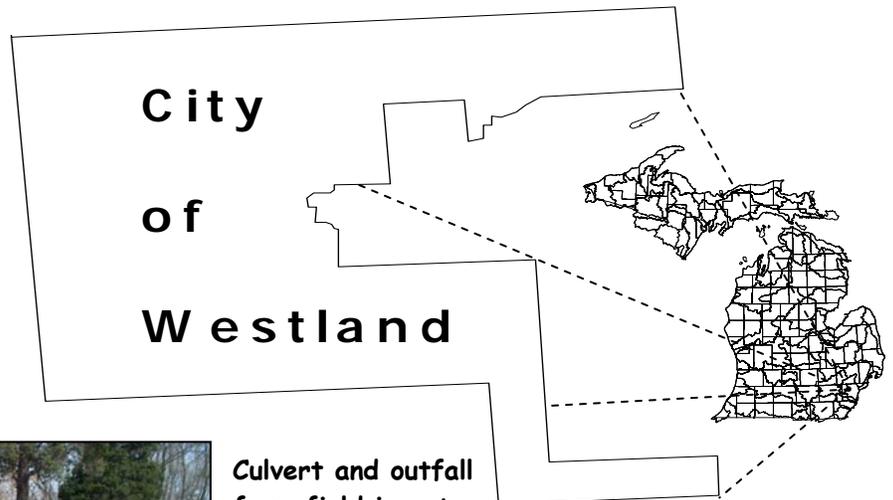
**Grant Amount: \$ 334,296**

**Match Funds: \$ 334,296**

**Total Amount: \$ 668,592**

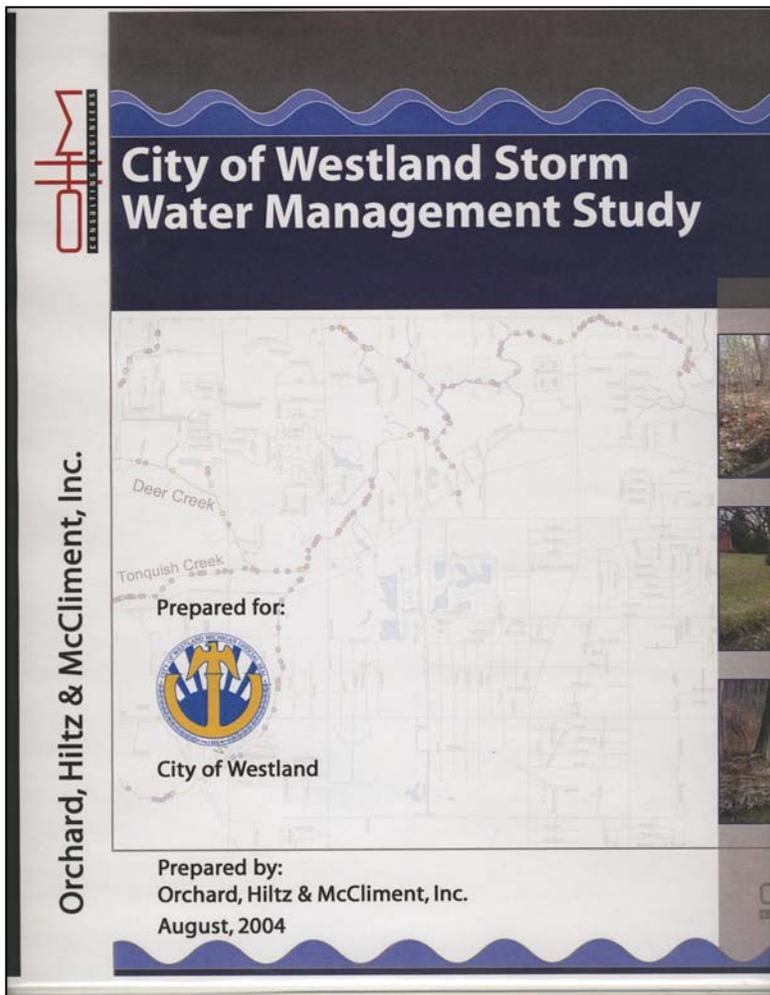
### Project partners:

- Orchard Hiltz & McCliment (OHM)
- Ralph Tyler Companies
- Rouge River National Wet Weather Demonstration Project

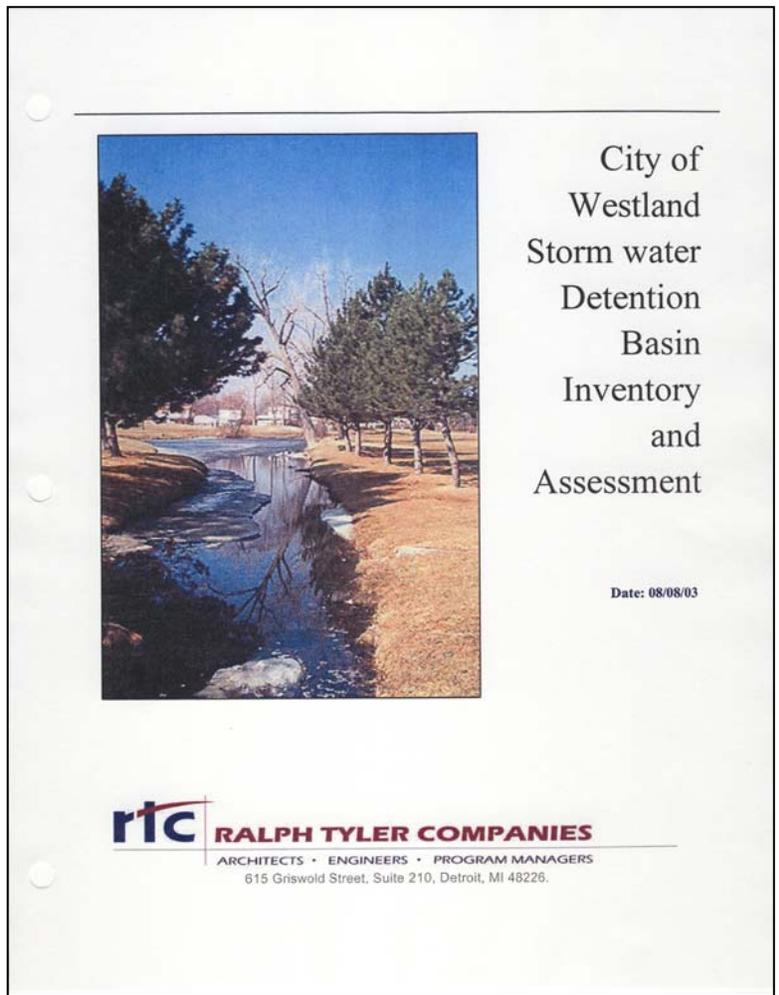


**Culvert and outfall  
from field inventory**





Main report cover



Modeling report cover



Field inventory included natural and man-made channels, large and small outfalls, and erosion sites.