



City of Westland Illicit Connection Project

Westland, Michigan

THE ROUGE RIVER PROJECT
A WORLD CLASS EFFORT



BRINGING OUR RIVER BACK TO LIFE

A publication of the Wayne County Rouge River National Wet Weather Demonstration Project
Information Date: March 2002

Objective

The objective of the City of Westland illicit connection grant was to identify illicit connections to the storm or sanitary sewer system, determine the need for maintenance of the storm and sanitary sewers and determine the cost for maintenance of the sewers.

Owner

City of Westland



Location

Storm and sanitary sewers were televised throughout the City. Storm sewers were cleaned in the northeast and southeast areas the City. Outfalls were inspected along the Middle Rouge River, Tonquish Creek, Willow Creek and Flynn Drain in the Lower Rouge River.

Dates

Completion Date August 2000

Total Project Cost

\$134,233

Demonstration Aspects

- Use of a television camera to find illicit connections.
- Use of visual inspections to find illicit connections.
- Determination of costs of investigations and cost for repairs to the storm and sanitary sewer system.

Project Highlights

- The City planned to check 28 crossings of storm and sanitary sewers. It found there were 131 crossings. All crossings were checked and no illicit discharges were found.
- The City planned to check 58 outfalls. They found and checked 253 outfalls. Fourteen outfalls required further investigation.
- The city checked the 32 connections of the storm sewers to the Wayne County storm sewers. One required a follow up visit.
- Sewers crossing streams were checked. Eleven could be televised. All were okay.
- All open drains in the City were walked to identify outfalls and suspicious discharges.
- The City of Westland did not feel that the Illicit Connection Grant was cost effective since they had previously done smoke testing and dye testing with Wayne County. Having grant money to rehab the sanitary and storm sewers would have been better.

- Televising of the storm sewers located 62 lines with roots and 227 locations where sand or other debris obstructed the camera.

Major Elements

- 14.36 miles of storm sewer and 2.36 miles of sanitary sewer were televised. There are 250 miles of storm sewers in Westland.
- Costs for televising sewers and for repairs were tracked.
- Maps were prepared showing the sewers televised, sewers cleaned and outfall locations.

Project Results

- Fifteen locations were found that required follow up as potential illicit connections.
- Many more storm and sanitary crossings and outfalls were found than anticipated.
- The cost of equipment and staff to televise storm and sanitary sewers was \$393 per 100 feet.
- The cost of repairs to the sanitary sewer was about \$405 per hundred feet. This cost is based on 20 repairs that have been made.
- The cost of repair to the storm sewers is projected to be \$249 per hundred feet.
- The cost to clean storm sewers was \$179 per 100 feet.
- The cost to repair a manhole is about \$1,000 per manhole.

To obtain further information on the Rouge Project, including documents, maps and general information, visit us at.

<http://www.rougeriver.com>

Acknowledgements

The Rouge River National Wet Weather Demonstration Project is funded, in part, by the United States Environmental Protection Agency Grants #X995743-01, -02, -03, -04, -05, -06, -07 and C-264000-01.