



**Clean Michigan Initiative
Clean Water Fund Grant
#2002-0241**

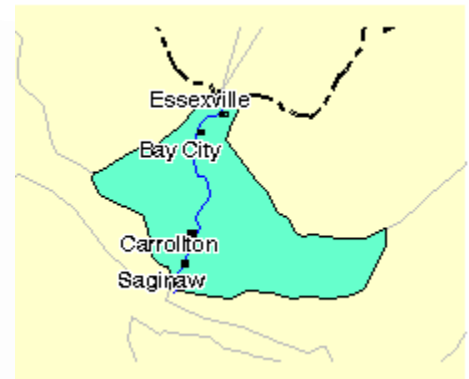


City of Bay City
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**Illicit Discharge Elimination Program for the City of Bay City Urbanized Area
September 1, 2004-September 1, 2008**

The purpose of this project was to identify illicit non-storm water discharges to the storm sewer system in the Bay City urbanized area. Initially, each outfall in Bay City was investigated using the methodology identified in the city's Illicit Discharge Elimination Program (IDEP) Field Protocol Manual. During the initial screening investigations, approximately 33 percent of the outfalls were partially inundated by the Saginaw River, so smoke testing and dye testing practices were implemented to determine if any illicit connections existed in the inundated sewers. Approximately 440 residential and commercial parcels were tested. Of the 48 original outfalls identified in the county permit, six additional outfalls were found, nine original outfalls were found not to be municipal storm sewer outfalls and 10 illicit connections were identified. To date, 10 illicit sanitary connections to the City's storm sewer have been removed and confirmed.

	Grant Amount:	\$93,750
	Match Funds:	\$48,159
Total Amount:		\$141,909



Project Activities:

- Investigated forty-five (45) MS4 outfalls.
- Developed a standard Illicit Discharge Elimination Program field manual.
- Identified ten illicit connections; all have been removed and confirmed.
- Performed dye and smoke testing on approximately 440 residential and commercial parcels.

Annual Pollutant Load Reductions:

- Total Solids - 7,238 pounds/year
- Nitrogen - 402 pounds/year
- Phosphorous- 80 pounds/year
- Grease - 1,005 pounds/year

Saginaw River Urbanized Area Project Data:

- 45 outfalls investigated.
- 10 illicit connections identified and removed.
- Reduced amount of sewage entering river by 1,204,500 gallons annually.

Partners Involved:

- City of Bay City
- Tetra Tech, Engineering Consultant





Top Left: Approximately 33% of the 45 outfalls were partially inundated or completely submerged from the Saginaw River water level. This required the city to implement alternatives to traditional dry weather screening practices, including smoke and dye testing. **Top Right:** This storm manhole had visible sanitary debris; an illicit connection was just upstream of this manhole at a residence. **Bottom Left:** This turbid water was tracked to a concrete production facility where storm water from the parking lot was capturing pollutants before discharging into the Saginaw River. The City sent a letter to remind the facility of best management practices to use during production. **Bottom Right:** Existing storm water infrastructure is aged and, in some areas, in need of repair, as shown by this broken outlet pipe.

