



# Eighteenmile Creek Watershed Model, NY

US Army Corps  
of Engineers®

Great Lakes Tributary Model Program (Section 516e, WRDA 96)

**Project Location:** Eighteenmile Creek is a tributary of Lake Ontario and located entirely in Niagara County, NY. A portion of the Creek has been designated as the Eighteenmile Creek Area of Concern.

**Project Description:** The Eighteenmile Creek watershed is located along the southern shore of Lake Ontario in Niagara County, New York. Eighteenmile Creek flows generally to the north and discharges into Lake Ontario, through Olcott Harbor, approximately 18 miles (29 km) east of the mouth of the Niagara River. The watershed has a drainage area of approximately 58,056 acres (234.94 km<sup>2</sup>) and includes Eighteenmile Creek; the two main tributaries, the East Branch and the Gulf, and minor tributaries. In addition, much of the flow in the main branch of Eighteenmile Creek comes from water diverted from the New York State Barge Canal. A section of Eighteenmile Creek was designated as an Area of Concern (AOC) by the International Joint Commission because of an existing fish consumption advisory, benthic population decline, a degradation of fish and wildlife populations, prevalence of bird and animal deformities or reproductive problems and restrictions on dredging. Over the years, numerous contaminants have been identified in creek sediments which have a detrimental effect to the AOC and Lake Ontario. Sediments contaminated with these substances have directly contributed to the impairments just mentioned.

**Project Benefits:** This project resulted in the development of a Soil Water Assessment Tool (SWAT). Discharge and sediment concentrations at two locations in the watershed were used to calibrate the model and generate sediment yields. The SWAT model was implemented for the drainage basin and used to identify watershed areas and stream reaches contributing sediment yield.

**Status:** This project was completed in December 2005.

## Schedule:

Milestone	Date
Technology Transfer	Dec 2005

## Project Costs:

Estimated Project Costs	
Federal – E&W	\$188,000
Federal – GLRI	\$0
Total	\$188,000

**Project Partners:** Niagara County Soil and Water Conservation District, Eighteenmile Creek Remedial Advisory Committee.

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