



US Army Corps
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Fact Sheet

Great Lakes Tributary Modeling

Issue: Diffuse pollution from soil erosion and nonpoint sources is one of the priority issues facing the Great Lakes and a focus area of the Administration's Great Lakes Restoration Initiative (GLRI). Diffuse pollution has significant adverse impacts, both environmental and economic. As a major source of nutrients, it is increasing algae blooms and dead zones in the Lakes. As the major source of sediments, it is reducing water depths in harbors and shipping channels and increasing the need for dredging and costs of dredged material disposal.

Authority: In 1996, Congress created the Great Lakes Tributary Model program through Section 516(e) of the Water Resources Development Act of 1996. This authority enables the Army Corps of Engineers to develop sediment transport models to assist state and local agencies with the planning and implementation of measures for soil conservation and nonpoint source pollution prevention. Models can be developed at all tributaries to the Great Lakes that discharge to Federal navigation channels or Areas of Concern (AOCs). The ultimate goals of this program is to reduce the loading of sediments and pollutants to tributaries in order to enhance Great Lakes water quality, help delist Great Lakes AOCs, and reduce the need for navigation dredging.

Funding: The FY 2010 Energy & Water Appropriations includes \$1.14 million for this program. Additional funding for this program will be provided through the EPA Appropriations for the GLRI. For FY 2011, \$1.5 million could be used to accelerate completion of ongoing modeling at Great Lakes tributaries.

Coordination: This program is being implemented in close coordination with the Great Lakes states. Tributary models are developed in partnership with representatives of agencies and organizations from the watershed, including Soil and Water Conservation Districts, Remedial Action Plans committees, municipal and regional planning agencies, navigation interests, state and federal resource agencies. These partnerships guide the scope and focus for the model to meet individual watershed needs.

Accomplishments: Models have already been completed at 24 tributaries and are being used by local, state and federal agencies for watershed and ecosystem planning, forestry management, navigation maintenance planning, and water quality compliance evaluations. State and county agencies are also using models to identify the most effective locations for buffer strips or wetland restoration projects and assess impacts of urban sprawl on sedimentation. A partial list of completed models is provided on the attached table. Also provided is the status of the 10 ongoing projects for tributary model development.

For More Information: Information on tributary models and reports are available online at:
www.glc.org/tributary/

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Partial List of Projects under the Great Lakes Tributary Modeling Program

State	Tributary	Status	Uses of Model
Illinois	Waukegan River	Under development	Evaluate bank erosion and restoration of urban river
Indiana	Burns Ditch/Trail Creek	Completed	Land-use planning and conservation to reduce nonpoint pollution
Michigan	Battle Creek	Completed	Evaluate agricultural BMPs and prioritize CRP projects
	Clinton River	Completed	Evaluate urban stormwater management and bank erosion options
	Grand River	Completed	Evaluate agricultural BMPs
	Rouge River	Initial scoping	Assess impacts of dam removal on sediment erosion and transport
	St. Joseph River	Completed	Evaluate agricultural BMPs and sediment transport thru navigation channel
Minnesota	Knife River	Under development	Manage bank erosion from historic logging activities
	Nemadji River	Completed	Evaluate impacts of forestry practices on bank erosion
MN/WI	St. Louis River	Initial scoping	Evaluate impacts of urbanization and altered hydrology on sediment yield
New York	Buffalo River	Completed	Evaluate pollution prevention and sediment cleanup options
	Cattaraugus Creek	Completed	Evaluate impacts of urban development on erosion/nonpoint pollution
	Cayuga Creek	Completed	Evaluate impacts of urban development on erosion/nonpoint pollution
	Oak Orchard Creek	Under development	Evaluate buffer strips and other BMPs
Ohio	Auglaize River	Completed	Prioritizing sites for buffer strips and other conservation measures
	Blanchard River	Under development	Evaluate agricultural BMPs and wetlands restoration
	Cuyahoga River	Completed	Planning conservation actions and forestry management
	Swan Creek	Completed	Evaluate impacts of urban development on erosion/nonpoint pollution
Pennsylvania	Mill and Cascade Creeks	Completed	Plan stream restoration and other actions for AOC delisting
Wisconsin	Manitowoc River	Under development	Evaluate effectiveness of agricultural BMPs
	Menominee River	Completed	Evaluate impacts of urban growth and river restoration options
	Siskiwit River (Cornucopia)	Under development	Evaluate watershed management to reduce harbor shoaling
	Whittlesey Creek	Under development	Restoring flow and fishery access in high value stream