

Menomonee River (Wisconsin)

Watershed location and features:

- tributary to the Milwaukee River
- total watershed area is approximately 140 square miles, located in Milwaukee, Waukesha, Ozaukee and Washington Counties
- discharges to Federal navigation channel at Milwaukee Harbor

Watershed characteristics:

- primarily urban with residential, commercial and industrial development
- upper reach of the watershed is agricultural but is being developed

Soil erosion and sedimentation issues:

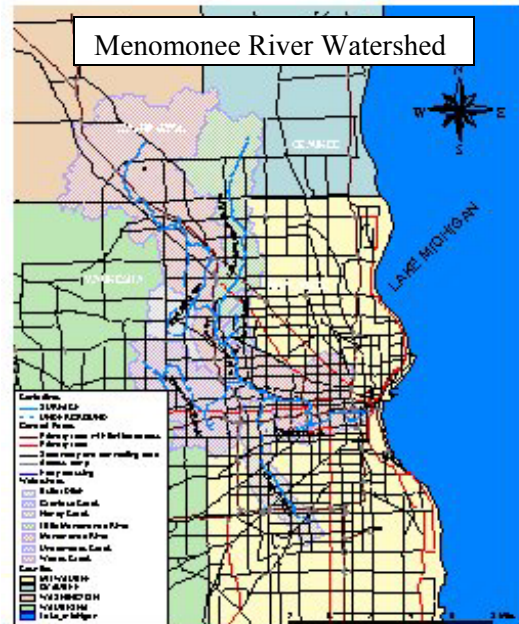
- streambank erosion along most of the Menomonee River
- erosion from construction sites
- particulate washoff from urban areas

Contamination issues:

- the lower 4.8 km of the Menomonee River is part of the Milwaukee River Area of Concern
- sediment quality is a concern (Moss American Superfund Site)

Partners on tributary modeling:

- Milwaukee Metropolitan Sanitary District (MMSD)
- Milwaukee Port Authority
- U.S. Environmental Protection Agency
- U.S. Geological Survey



Modeling approach:

- HSPF hydrologic model developed for watershed
- hydraulic modeling utilizing HEC-RAS
- HEC-6 was used to predict sediment transport
- BASINS 3.0 water quality model was used to provide further analysis

Status:

- modeling completed in April 2002
- workshop conducted in Milwaukee in May 2002 to train users from the MMSD and Milwaukee Port Authority
- the model and data were transferred to MMSD

Applications:

- examined the effects of urban development on sediment delivery and transport
- assess the benefits of peak flood mitigation projects
- model sediment delivery
- model soil conservation measures on agricultural areas