



WATERSHED PROGRESS: Rouge River Watershed Michigan

"Historically, we could point to industries and municipalities as the major contributors. Now we recognize that as individuals we must change our behavior if water quality standards are to be achieved...The citizens of Southeast Michigan deserve a river which is safe and clean for our children and our future."

*- Jim Murray, Director, Wayne County
Department of the Environment*

Photo courtesy Friends of the Rouge River

Despite the improvements in industrial and municipal wastewater treatment, watershed residents will be unable to freely enjoy the river without the threat of disease-causing organisms as long as raw sewage spills from combined sewer overflows and bacteria from leaking septic systems is still discharged into the river.

The sources:

The remedial action plan identified significant pollutant sources and the Rouge River Project (see below description) has subsequently conducted sampling programs to better define all of the pollutant sources to the river. Initial sampling and modeling has shown that controlling combined sewer overflows is only the first step in restoring the Rouge River. Other pollutant sources are stormwater, unpermitted discharges, failing septic systems, leaching dumps and possibly air deposition. Sampling in the headwater areas indicates that many sites failed water quality standards for coliform bacteria, indicating that raw and/or semi-treated sewage is entering the river. These high bacteria levels are above the combined sewer areas, and the sources of the bacteria have not been confirmed.

Potential sources include failing septic fields and illegal connections of sanitary pipes to storm sewers.

The strategy:

Cleaning up the Rouge River is a multistep process that must be a team effort. A remedial action plan was developed by the Michigan Department of Natural Resources (MDNR), now called the Michigan Department of Environmental Quality (DEQ), in partnership with communities, citizens, businesses, industries, and local governments.



Construction of the Dearborn Heights Retention Basin

Wayne County is spearheading the plan's implementation via the Rouge River National Wet Weather Demonstration Project (Rouge Project) with funding by EPA and local communities. The Rouge Project oversees the 17 combined sewer overflow abatement projects under construction (11 retention treatment basins and 6 sewer separation projects - see above photo). These control technologies will then be evaluated to help quantify their effect on the quality of the river so as to suggest the most appropriate combined sewer overflow (CSO) method. Because CSO control will not eliminate all pollution to the river, the Rouge Project is assessing and implementing non point source controls as well and pollution prevention programs for watershed residents and businesses. Success will be shared with other urban watersheds.

Another key aspect of the Rouge Project is to get information into the hands of the community so they can make informed decisions and obtain meaningful information on the portion of the watershed in which they live. In 1994, the Rouge Project developed a windows-based application of a Geographic Information System (GIS) to allow users to access, browse, and query sampling data sets from their personal computers. This tool is expected to be particularly useful to local officials who make land-use decisions.

Measures of Success:

Success is achieved only if the citizens can once again use the river. Toward this end, a goal has been set for one third of the combined sewer overflows (CSO) to be separated and treated by 1997. Signed permits are in place to control the remaining CSO by 2005. Before continuing the massive CSO construction effort, a key objective is to find the most effective combination of solutions (combined sewer overflow and non point source controls) that will result in the most significant water quality improvements.

Watershed studies, thanks to the grassroots organization Friends of the Rouge, are in place in 100 schools, many of which are linked by computers. In addition, predictive models have been developed for pollutant loadings and remediation efforts have been prioritized. Finally, a stretch of river has been opened for canoeing, with more scheduled to open in 1996.



Courtesy: Rouge River Project

"By working cooperatively, the communities in Southeast Michigan can finally expect to enjoy the many uses an urban river can provide."

- U.S. Representative John Conyers (D-MI)

For more information, contact the Rouge River Project at (313) 961-0700.

EPA's Role

EPA, along with the Michigan Department of Environmental Quality, Wayne County Department of Environment, Rouge Remedial Action Plan Advisory Council, and others are members of the Rouge River Project Policy and Steering Committees. In addition, EPA awarded \$288 million to Wayne County for the Rouge River National Wet Weather Demonstration Project. For more information on EPA's involvement, contact EPA Region 5 at (312) 353-2147.

Nationally, EPA has been reorienting its programs and developing tools to facilitate the watershed approach since 1991. For more information on the watershed approach, please contact the EPA at Office of Wetlands, Oceans and Watersheds, 401 M Street, S.W. 4501F, Washington, DC 20460 (Attention: Watershed Outreach coordinator) or visit us on the world wide web at URL:<http://www.epa.gov/OWOW>.