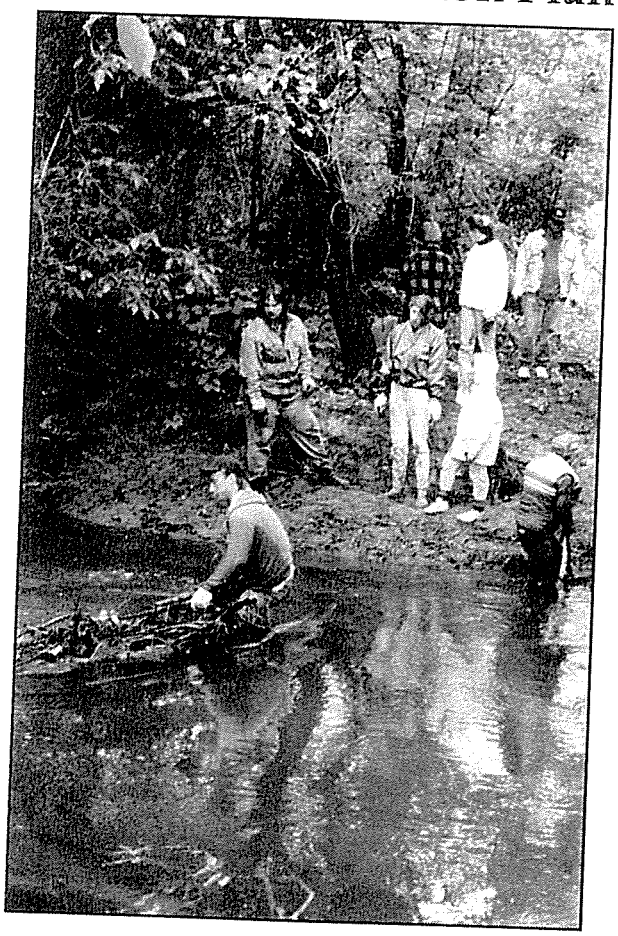
The Rouge River

Remedial Action Plan



A citizen-government project to restore and protect one of Michigan's vital waterways

DEQ
Michigan Department of Environmental Quality
Surface Water Quality Division

What's a RAP?

A Remedial Action Plan (RAP) is a process that embraces a comprehensive ecosystem approach to restoring and protecting a lake or river that has been designated an "Area of Concern" (AOC) due to severe, persistent environmental problems. In the Rouge River, these problems include poor water quality caused by pollution and loss of wildlife habitat due to human activity such as development.

There are 43 AOCs within the Great Lakes watershed and 14 in Michigan, including the Rouge River. The Great Lakes Water Quality Agreement (GLWQA) of 1978 between the United States and Canada requires the development of a RAP for each AOC.

A RAP notes problems in the AOC, identifies the causes and sources of pollutants of concern, and determines what actions are needed to correct the problems and to prevent future ones. It also lists 14 potential "use impairments" — undesirable conditions that restrict how the water can be used. In Michigan, the Department of Environmental Quality (MDEQ) is responsible for overseeing the development and implemention of RAPs.

The river

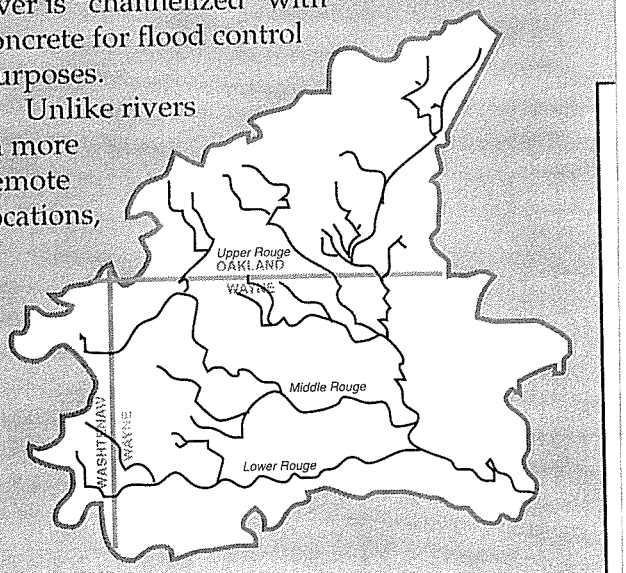
The Rouge River drains about 438 square miles of land in Wayne, Oakland and Washtenaw counties in southeast Michigan, and empties into the Detroit River just south of the city of Detroit.

The river's watershed is fan-shaped, and includes four primary branches, numerous tributary streams and more than 400 lakes and ponds. The Main Branch originates in southeast Oakland County and flows generally southward before turning southeast a few miles before it meets the Detroit River. Along the way it picks up water from the eastward-flowing Upper, Middle and Lower branches.

Rouge River topography ranges from hilly in the north and west to relatively flat in the southeast. The varying terrain results in different flow rates — faster where the gradient is steeper to slow in the level areas. The clay stream beds create the brown color characteristic of the Rouge River.

About 1.5 million people live within the Rouge River watershed, making it the most densely populated in the state. The drainage area includes all or part of 48 communities within its boundaries. More than half of the land within the watershed is used for commercial, industrial or residential purposes, and another 25 percent is suburban or agricultural. Only about 25 percent of the land is considered undeveloped. The last five miles of the river is "channelized" with concrete for flood control purposes.

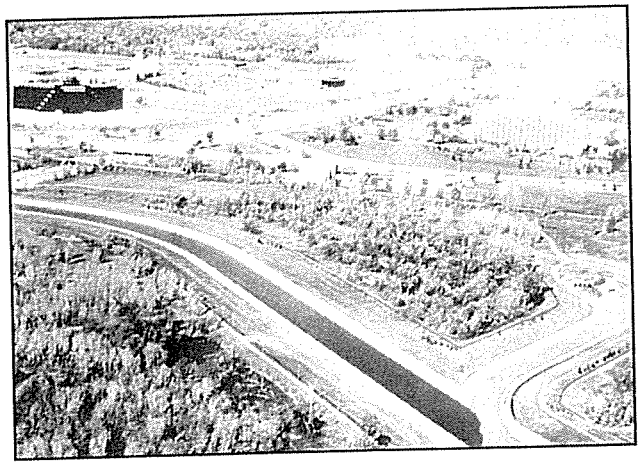
Unlike rivers in more remote locations,



Work on "The Rouge River Strategy" was started in October 1985. It later became the Rouge River RAP, and was completed and adopted by stakeholders in 1989. The RAP describes actions needed to clean up and preserve the Rouge River, and sets out a 20-year plan to accomplish these goals. Michigan's RAP process requires that the RAP be updated every two years. A technical group known as the "RAP Team" was formed in 1993 to revise the RAP. A public participation committee known as the "Rouge RAP Advisory Council" (RRAC) was also convened in 1993 to advise the team on RAP issues.

the large population within the watershed and the creation of more than 50 miles of public parks along its banks have increased the potential for public contact with this waterway. Therefore, the Rouge River is particularly susceptible to damage from human activities.

The entire watershed is included within the AOC due to the significant impact that pollution has had on all four branches of the river and its tributaries.



What's wrong?

The water quality of the Rouge River has been seriously affected by human activity for nearly two centuries. Many problems caused by urbanization are addressed in the RAP.

- "Combined sewer overflows: (CSOs) occur when sudden, heavy rains overwhelm municipal systems that carry sanitary sewage and storm water in the same pipes. This discharge of raw sewerage can cause high bacteria levels in the river, curtail recreational use of the water and pose a threat to human health.

- "Nonpoint sources" of pollution affect much of the Rouge River. Examples are soil eroded from construction sites, motor oil washed off roads by rain, fertilizers and pesticides carried into the river by runoff from lawns, and animal wastes from areas where ducks and geese are fed.

- The floodplain is dotted with abandoned dumps that contain construction debris, municipal wastes and hazardous materials. The river banks are now eroding, cutting into these old dumpsites and releasing wastes into the water.

- Land development throughout the watershed continues to reduce the natural areas available for wildlife.

- Fish consumption advisories have been in effect for many years due to the accumulation of mercury and PCBs in the flesh of several species of fish. These advisories include portions of the Lower and Middle branches of the Rouge River and Newburgh Lake.

What's right?

The Rouge River is coming back to life! The following activities are helping the river "heal."

- Millions of dollars are being spent to reduce or eliminate raw sewage discharges to the Rouge River from combined sewer systems. Retention basins are being built, and sanitary and storm sewers are being separated in many communities to correct the CSO problems along the Rouge.

- In areas where sanitary and storm sewers were separate, several million dollars have been spent to eliminate raw sewage discharges to the river from older sanitary sewers. Improvements to the waste water collection systems have virtually eliminated these by-passes.

- Wayne County's Department of the Environment, the U.S. Environmental Protection Agency (EPA) and the MDEQ are conducting the Rouge River National Wet Weather Demonstration Project (RRNWWDP). This multi-year, multi-million-dollar effort will look at the effects of wet weather on the watershed. It will also demonstrate innovative controls for nonpoint source pollution and CSOs.

- Due to greater regulatory control over the last 10 years, most of the remaining industrial discharges to the Rouge are uncontaminated cooling water which pose less of a threat to the environment. All other industrial facilities within the watershed send their wastewater to municipal treatment plants.

- The Friends of the Rouge, a non-profit citizen advocacy group, has initiated several public involvement projects such as an "adopt-a-stream" program called RiverWatch, a student environmental education program, and storm drain stenciling. This group also hosts the annual "Rouge Rescue" cleanup.

- Fish populations are improving with species such as steelhead trout, salmon, northern pike and bass calling the river "home." Trout have been planted in the more pristine areas to establish a sport fishing population.

- Studies are being performed by the Oakland County Health Divison to identify and quantify the impact of leaking residential septic systems along the Rouge River and its tributaries.

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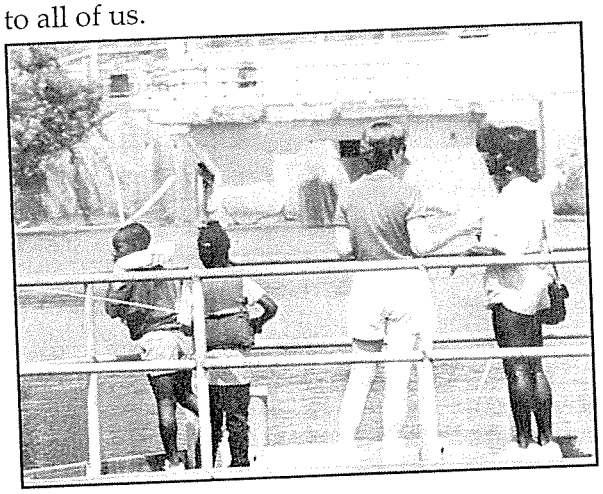
What can you do?

Become aware of how everything you do can potentially affect the Rouge River. Even small amounts of some pollutants can have a large impact on the environment. Fertilizers or pesticides applied incorrectly to lawns; and oil, antifreeze, paints or solvents poured into storm drains can have serious effects on the river.

Public involvement is a cornerstone of the RAP process. In 1993, a public participation group known as the Rouge RAP Advisory Council (RRAC) was formed. In 1994, RRAC and members of a technical group known as "the RAP Team" began updating the Rouge River RAP.

You can help by attending and participating in RRAC meetings, and by encouraging local officials to support activities that protect or enhance the Rouge River. Most of all, enjoy the river! It belongs to all of us.



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