

## Water Quality Problems in the St. Joseph River and Their Causes

**The St. Joseph River is a valuable community resource enjoyed by Olympic-caliber kayakers, recreational canoeists and weekend sport fishermen. Its water quality has improved dramatically since the 1950s, with more than 80 species of fish now found in the watershed and scores of parks and recreational areas lining its banks.**

With the river's resurgence, the communities of South Bend, Mishawaka and Elkhart are planning more recreational and economic opportunities on their waterfronts.

Despite this progress, the St. Joe still doesn't meet federal Clean Water Act goals.

From Elkhart to the Indiana-Michigan state line, the St. Joseph River doesn't meet recreational water quality standards for *E. coli* bacteria 10-16 percent of the time during the warm-weather months when people use the river for recreation.



*E. coli* bacteria is an indicator of human or animal waste and potentially disease-causing organisms in the water. Some *E. coli* in a waterway is natural, but high levels have been linked to stomach cramps, diarrhea and other gastrointestinal illnesses among swimmers and people who ingest or swallow water during recreation. Children, the elderly and people with weakened immune systems or chronic conditions are most at risk.



During dry weather, approximately 97 percent of St. Joe River water samples meet *E. coli* standards. When it rains, however, many sources combine to cause high *E. coli* bacteria levels in the river. These sources include:

- Sewage overflows during wet weather from cities with combined storm-sanitary sewer systems (South Bend, Mishawaka, Elkhart and Goshen)
- Stormwater runoff from farms and animal feedlots
- Stormwater runoff from parking lots, yards and other areas with wildlife and pet waste
- Runoff from neighborhoods with failed septic systems

The U.S. Environmental Protection Agency and Indiana Department of Environmental Management require cities with combined sewers to develop long-term plans to reduce sewer overflows. Cities also must implement regulations and educational programs to reduce stormwater pollution.

State and local health departments regulate private septic systems and property owners are responsible for properly maintaining those systems. State environmental regulations also govern farms with confined feeding operations.

However, more efforts will be needed in the future to protect the St. Joe — and people who use it — from stormwater runoff, agricultural runoff, failing septic systems and other pollution sources.

