## Water Quality Summary-St. Joseph River Watershed

The St. Joseph River Watershed was divided into five River Valley Segments in order to evaluate watershed impairments on a manageable geographic scale. However, the size of the River Valley Segments did not allow for entire segments to be identified as "impaired", with the exception of the Mouth and Lower Segments, which are the focus of *E. coli* Total Maximum Daily Loads (TMDLs). Site specific impairments were derived from 305(b) and 303(d) lists, subwatershed projects and stakeholder interviews. Other indigenous aquatic wildlife was impaired in the greatest number of water bodies. Pathogens have been identified as a major pollutant from the Middle segment to the river's discharge to Lake Michigan. Two TMDLs are being developed to address this issue.

According to the Indiana Department of Environmental Management's (IDEM) 2002 Integrated Water Quality and Assessment Report, aquatic life is not supported in 9 Indiana streams and in 12 lakes. Primary contact/recreation is not supported in sixteen streams. Five water bodies are ranked high for pathogenic stressors. Of those water body segments surveyed by IDEM's TMDL program, eighteen are listed as being fully supportive of aquatic life and eight are fully supportive of recreational use. Septic systems have been identified as one source of pathogens to surface waters and have the been the subject of a Section 319 project in Elkhart County, for example. Combined Sewer Overflows (CSOs) have also been identified as a source of pathogens, and municipal programs are working to address these issues.

The Michigan Department of Environmental Quality (MDEQ) 2002 Waterbody System Nonattainment Survey indicates that one river did not meet the cold water fisheries designated use, one creek was listed for macroinvertebrate communities being rated poor and three segments were impaired for body contact (two along the main stem). Noted sources of these impairments included untreated sewage, CSO's, pathogens, nuisance algae, thermal impacts, oils and agricultural nonpoint source pollution. Three water bodies listed on the 2000 edition of the list for impairments to aquatic biota were removed due to dredging which caused them to be inappropriate to list for biota. These have been listed as impaired in the project tables. Indiana's TMDL Program identified many more waters on its 305(b) and 303(d) lists than the State of Michigan did. It is not clear whether these differences exists due to differences in actual surface water health, intensity of monitoring or criteria for nonattainment.

Public Water Supply: Surface Intake Point is primarily non-applicable, as most drinking water in the watershed is supplied by groundwater. Some municipalities in Berrien County, Michigan utilize surface water for drinking water supplies. However, the quality of that drinking water obtained from Lake Michigan is dependent upon the quality of the water being discharged to the lake from the St. Joseph River. Navigation is impaired in a few select locations due to fencing across surface waters and obstructive vegetative growth. It is suspected that Agricultural Water Supply may be impacted in some regions by upstream CSOs.

## **Project Goals**

Goals include:

- Ensure public access to swimmable, fishable water bodies by protecting habitat, reducing impacts from pathogens and establishing more public access points.
- Protect floodplains, wetlands, habitat and agricultural lands with consistent land use planning and zoning.
- Restore habitat quality and hydrological character to drains, where appropriate.
- Preserve historical attributes of watershed.
- Provide water trails and habitat linkages among watersheds.