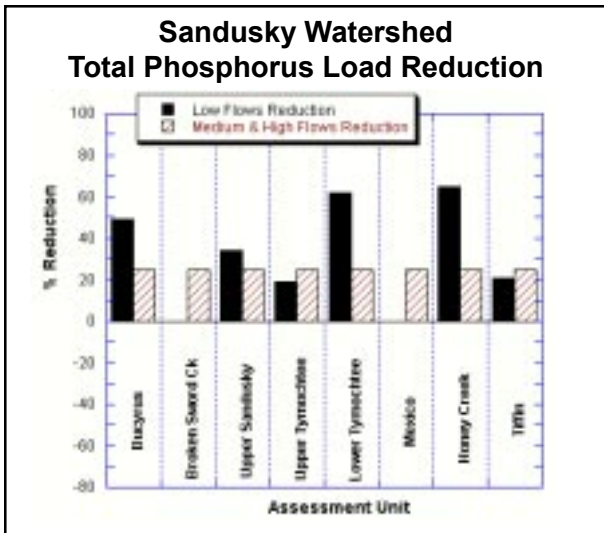


How Much Pollution Should be Removed?

The amount of phosphorus and nitrogen in water gives an indication of how polluted the water is. Phosphorus enters streams attached to soil particles. Both phosphorus and nitrogen enter the stream as part of fertilizer, animal manure, and human sewage. The Sandusky TMDL study showed that nitrogen amounts are within acceptable levels most of the time, but phosphorus needs to be reduced significantly. More than 90% of the phosphorus load comes from agricultural runoff. The TMDL report recommends several strategies:

A TMDL studies the health of rivers and streams in an area or region. It finds which streams are healthy and which are polluted. For streams that are polluted, the TMDL estimates how much pollution needs to be reduced to restore the stream to good health.

- Watershed wide total phosphorus load reductions of 25% are needed during higher stream flows.
- During lower stream flows, the phosphorus load reductions are tailored to each sub watershed based on local conditions.



The Local Watershed Group

The Sandusky River Watershed Coalition (SRWC), formed in 1997, is a community of individuals and organizations concerned with and/or affected by the protection and enhancement of the water resources in the Sandusky River Watershed.

A total of \$894,400 has been granted to landowners within the Sandusky River watershed for best management practices; additional monies are funding educational programs, a watershed coordinator, and a source water specialist for the karst region. Through efforts of the Coalition with local partner agencies, and programs like CREP and 319, conservation buffer practices are reducing the amount of soil and fertilizer entering the streams. Educational programs are helping watershed residents be more aware of potential threats to their surface and ground water drinking supplies.



What Can You Do?

- Learn about issues affecting the Sandusky River Watershed
- Participate in SRWC meetings, events, and activities; become a member or a volunteer
- Receive SRWC news & mailings
- Get to know other SRWC members
- Share ideas for conservation

If you are interested in joining, contact the Coalition at 419-334-5016. The SRWC Steering Committee meets monthly at the Seneca County Agricultural Services Center.



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OhioEPA

State of Ohio Environmental Protection Agency

Sandusky River TMDL

Questions and Answers

February 2004

Ohio EPA - Division of Surface Water
Lazarus Government Center
122 South Front Street
Columbus, Ohio 43215
(614)644-2001

Is the Sandusky Polluted?

Yes and no. Some areas of the Sandusky River and its tributaries have good water quality and healthy populations of fish and other aquatic life.



The Sandusky River main stem downstream from Upper Sandusky is in good shape, as are Broken Sword Creek and Negro Run. Other areas are not so fortunate. The Sandusky River near Bucyrus, and Westerly

Creek and Paramour Creek near Crestline are polluted by municipal sewage. Downstream of Bucyrus, the fish and sediment contain high levels of mercury. Communities with combined sanitary and storm sewer systems may have untreated human and industrial waste overflowing to the river during rainstorms.

Fertilizers pollute Little Sandusky River and Little Tymochtee Creek. Failing home septic systems pollute some streams in very localized areas of Little Sandusky River, Tymochtee Creek, and lower Little Tymochtee Creek. Manure spills have been a problem in Brandywine Creek, Honey Run and Tymochtee Creek.

What Else Degrades the Sandusky River?

Physical changes to the land have also degraded streams in the watershed. Stream channelization, drainage tiles, and loss of floodplains and streamside vegetation are other forms of pollution. Most of the small streams in the Sandusky River basin have been ditched for

agricultural drainage. This contributes excess soil to the stream and destroys the home for fish and other aquatic life. Soil washed away from these ditches hurts the Sandusky Bay and Lake Erie.

Trees along the stream banks have been removed and the lack of shade allows the water to warm, decreasing the amount of dissolved oxygen for aquatic organisms and fish in some streams. This is made worse by manure and untreated sewage flowing from failing home septic systems.

Lack of water in the small headwater streams, especially in the summer, makes it hard for pollution to be absorbed and treated by the natural stream biology. Agricultural drainage practices and withdrawals for irrigation and water supply reservoirs are the main causes of water leaving these smaller streams too quickly.



Stream bank erosion near Remlinger Rd. Large volumes of sediment and phosphorus are carried away during high stream flows.

What is Being Done to Reduce Pollution?

The community is taking steps toward reducing pollution in the Sandusky River basin. In the late 1980s, large municipal wastewater treatment plants in the basin modernized; water quality improved as



Good habitat in and beside the stream helps to support fish, prevent erosion, and filter soil and fertilizers.

a result. Also, many conservation measures have been adopted to reduce soil getting into the river.

The TMDL identifies measures to reduce pollution. Some actions are already occurring. For example three grants are providing cost share for wetland restoration, home sewage system replacement, and agricultural conservation practices in targeted areas of the watershed.

The cities of Bucyrus, Upper Sandusky, and Tiffin are being required to separate their combined sewers and prepare long term plans to control raw sewage overflows to the Sandusky River during storm events.

The watershed community has created action plans to address pollution in rural areas. These plans target pollution using best management practices (BMPs) such as:

- increase conservation tillage
- increase filter strip coverage
- repair or replace and maintain home septic systems
- promote and fund best technologies to manage animal waste
- promote filter strips to reduce frequency of ditch maintenance