Maumee State Scenic River

Ohio
Stream Quality Monitoring
2008 Annual Report

Maumee State Scenic & Recreational River
2008 Stream Quality Monitoring Annual Report

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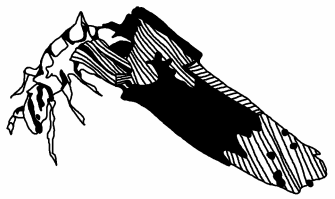


Ohio Scenic Rivers Program
With more than 60,000 miles of streams, Ohio is a water-rich state. Many of Ohio's streams support thriving plant and animal communities, including Ohio's state designated scenic rivers. Administered by the Ohio Division of Natural Areas and Preserves, the Ohio Scenic Rivers Program oversees 14 state designated scenic river systems, comprising 800 river miles along 26 stream segments. These streams represent some of the best of Ohio's waterways.

Stream Quality Monitoring Project
Developed in 1983, the Ohio Stream Quality Monitoring (SQM) Project uses volunteers in aquatic macroinvertebrate monitoring to compile biological and water quality data on the state's scenic rivers. The Ohio SQM Project is an excellent, simple and cost-effective method of assessing a stream's health.

Aquatic macroinvertebrates are organisms, which lack a backbone (invertebrate), are large enough in size to view with the naked eye (macro), and spend at least a portion of their lives in the water (aquatic). Macroinvertebrates, such as various aquatic insects (e.g. mayfly, stonefly), are good indicators of stream health. When negative impacts to a stream occur, the result may show a decline or absence of certain macroinvertebrate species. Through consistent monitoring, changes observed in the macroinvertebrate community help the Ohio Scenic Rivers Program in detecting and addressing potential impacts to a stream.

The Ohio Scenic Rivers Program compiles volunteer field assessment information into a statewide database. The database serves as a tool to track short- and long-term changes and trends over time.

SQM Project Relies on Volunteers
Coordinated by the Division of Natural Areas and Preserves, the Ohio SQM Project provides opportunities for public participation in scenic river protection efforts. Many local, youth and conservation organizations, individuals and families are committed to monitoring more than 150 stations along Ohio's scenic rivers.

SQM volunteers collect macroinvertebrate data from selected monitoring stations, also referred to as monitoring sites or reference stations, at least three times during the monitoring season. Volunteers complete field assessment forms which document taxonomy, tolerance and abundance of collected organisms.

SQM Annual Report
The information collected by volunteers has become a critical tool for the documenting of the health of Ohio's state scenic, wild and recreational rivers. This report is a compilation of field data collected during 2008 by volunteers and staff. It also represents a year of dedication and commitment shown to Ohio's special waterways by thousands of SQM volunteers.

Maumee State Scenic and Recreational River
Overview

On July 18, 1974, the Maumee River was designated a scenic and recreational river by the director of the Ohio Department of Natural Resources. Flowing through the rich agricultural counties of northwest Ohio, the designated portions of the Maumee meander from the Ohio-Indiana border for 96 miles to the cities of Maumee and Perrysburg. From Perrysburg, the river flows northeast through Toledo before joining Lake Erie.

In the western end of the watershed, the Maumee flows along a broad floodplain and sharply meandering channel. Valley walls rise to the surrounding terrain and the riverbanks support a healthy, forested corridor. Approaching Defiance, the Maumee undergoes dramatic changes. The floodplain widens and the river channel nearly doubles in size, having added the Auglaize and Tiffin rivers to its flow. The surrounding topography flattens and forest cover on the riverbanks becomes relatively sparse.

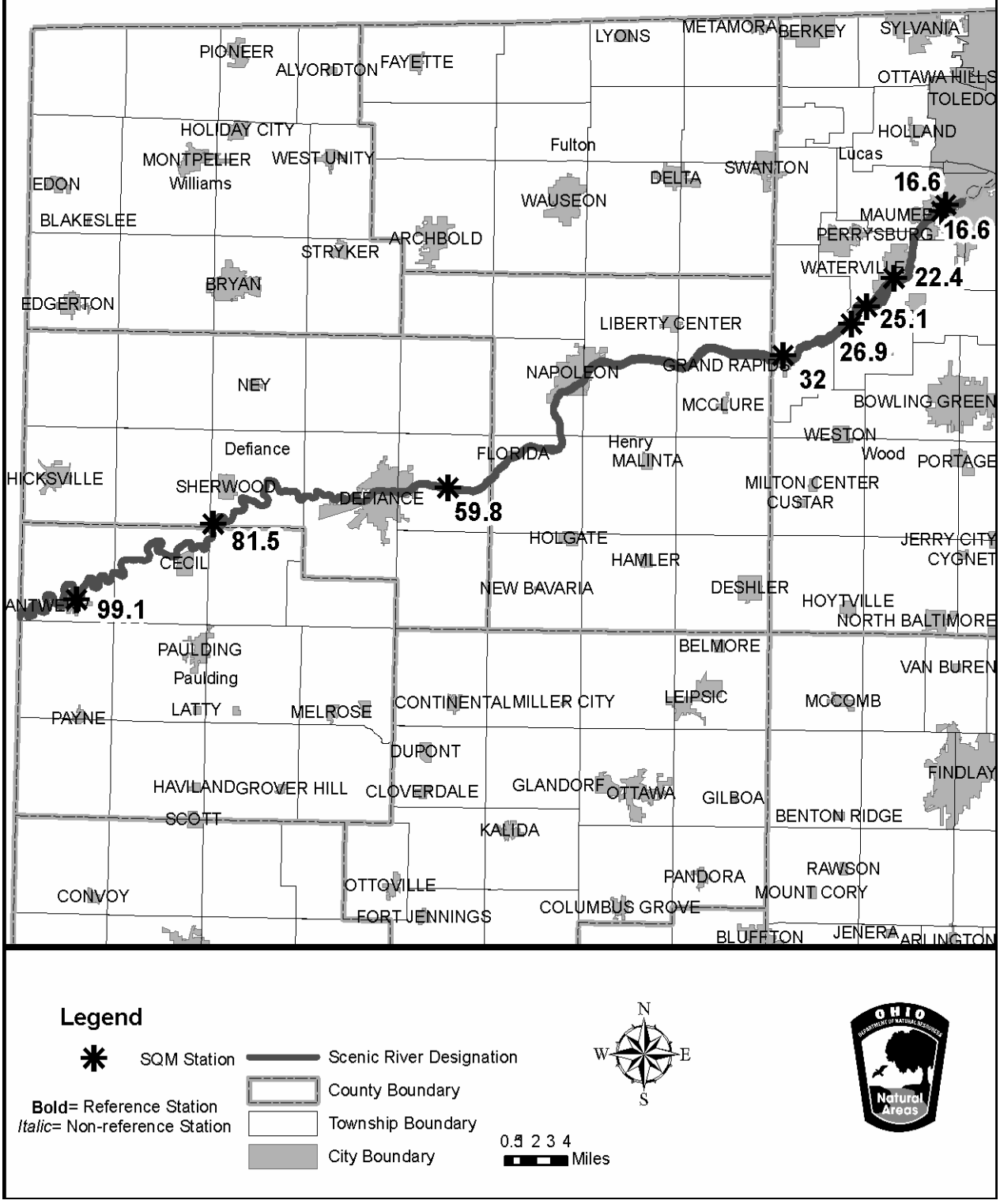
Like many of Ohio's rivers, the Maumee is home to many chapters of our state's colorful history. During the 17th and 18th centuries, there was a great southward and westward movement of the Native Americans of the Maumee Valley brought on by tribal warfare and increasing early American settlers. In 1794, tensions between the natives and early Americans resulted in George Washington's ordering of General "Mad" Anthony Wayne to win control of the Ohio country for the United States. Wayne's victory at the Battle of Fallen Timbers along the banks of the Maumee led to the Treaty of Greenville, which opened the Northwest Territory to increased settlement. Several other important battles occurred along Maumee at Fort Meigs and the British Fort Miamis. Sites of several other forts are also found throughout the valley.

Following the end of these conflicts, the Maumee River Valley transformed into a center of transportation (and increased commerce) with the completion of the Miami-Erie canal from Toledo to Defiance in 1842. This part of Ohio's canal system provided travelers with links to Cincinnati and the Ohio River to the south, and Cleveland and other cities to the east. Restored canal villages, like Grand Rapids, and mills, like the Ludwig Mill, provide visitors a glimpse of Ohio's past.

Although noted for its history, the Maumee River possesses a thriving aquatic community. More than 60 species of fish reside in the river including impressive spring spawning runs of gamefish, such as walleye and white bass. Many large water species, such as the northern pike, are also found in the Maumee. The Maumee riverbanks support many species of birds, including large populations of great blue herons and an occasional bald eagle.

Numerous public facilities along the Maumee provide easy and safe ways to enjoy this magnificent river. For more information, please contact the Northwest Ohio Scenic Rivers Coordinator at 419-981-6319 or the Division of Natural Areas and Preserves at 614-265-6453. Or, visit our website at www.ohiodnr.com/dnap for more information.

Maumee River
Stream Quality Monitoring Sampling Stations



2008 Stream Quality Monitoring Participants

Whether their contribution was a one-time event or a recurring adventure in stream exploration, the individuals and organizations listed below played a significant role in protecting the Maumee River. Their time and dedication to this river and the Ohio SQM Project are greatly appreciated.

River Mile 16.6 - Buttonwood / Side Cut Metropark
Volunteers are needed at this site.

River Mile 22.4 - Farnsworth Metropark, Roche de Bout Rapids
Brad Ballard with Maumee High School
Kasey Carlisle
Dalton Gordon
Matt Horvath
Doug Kane
Larry L. Lindsay with The Naturalist Scouts
Wanda Penamon with University of Toledo and Bowling Green State University SECO

River Mile 25.1 - Weir Rapids
Volunteers are needed at this site.

River Mile 26.9 - Otsego Park
Volunteers are needed at this site.

River Mile 32.0 - Downstream of Providence Dam
Mike and Lynn Buchele

River Mile 59.8 - Independence Dam State Park
Kathy Laney with Hicksville High School

River Mile 81.5 - Gordon Creek Bridge
Volunteers are needed at this site.

River Mile 99.1 - Antwerp Village Park
Steven Coburn-Griffis

The continued success of the Ohio SQM Project is dependent upon the commitment and dedication of these (and other) volunteers and participants. If you would like become a volunteer, please contact the Northwest Ohio SQM Coordinator at 419-981-6319 or the Division of Natural Areas and Preserves at 614-265-6453.

Stream Quality Monitoring Station Descriptions

Stream Quality Monitoring stations along the Maumee River have been selected based upon their ease of access, macroinvertebrate habitat and adequate sampling areas. Where possible, sampling stations are located on public property or where public access to the riffle area is convenient and safe. The following are brief summaries of the SQM stations located on the Maumee River.

River Mile 16.6 - Buttonwood Park / Side Cut Metropark
Located adjacent to S.R. 65 in Wood County, this site is the eastern-most reference station on the Maumee River. Access through the park area owned and administered by the Wood County Park District is convenient and safe. The riffle area is very wide and sampling sites are numerous. Sampling occurs on both sides of the river, with suitable riffle areas found at Buttonwood and Side Cut metroparks. However, caution must be exercised when sampling in this area due to its popularity as a fishing site during the spring walleye spawning run. Snagged fishing lures and hooks are common. During periods of high flow, currents in the river may be too strong to allow safe sampling.

The riverbed is comprised of limestone cobblestones and boulders, providing exceptional habitat for mayfly nymphs, riffle beetles and other pollution intolerant macroinvertebrates. Among reference stations on the Maumee, Buttonwood consistently rates among the highest of CIVs.

River Mile 17.0 - I-475 Bridge *(non-reference site)*
Located beneath one of Northwest Ohio's most traveled interstates, this site provides SQM participants an opportunity to observe the effects of commuter traffic and urban sprawl on a river ecosystem.

The village of Waterville Sewage Treatment Plant outflow empties upstream and debris from the bridge overpass collects in the river and on the banks. The riverbed is primarily silt deposit on bedrock with scarce riffles comprised of gravel and boulders. Caution must be exercised, as fishing hooks and broken glass are common.

Although this is not a site for young children or introductory groups, seasoned SQM participants are encouraged to compare findings at this site to those found upstream at Farnsworth Metropark and downstream at Side Cut Metropark, two of the finest macroinvertebrate habitats at the east end of the scenic river designation.

River Mile 17.9 - Turkeyfoot Rock *(non-reference site)*
Turkeyfoot Rock is located 3 miles west of the city of Maumee off U.S. 24. Parking at this site is limited to roadside. Well-worn paths, formed by walleye anglers, provide access to the river. Once this site was monitored as a reference site, but is no longer frequented as the fast-moving current over smooth, stepped bedrock provides poor habitat for macroinvertebrates and therefore, poor monitoring.

Small groups who do choose to “rough it” through the riverside brush and cobbled trails will appreciate the history and legend of this site. It was here that Chief Turkey Foot rallied his warriors from the midst of heavy fighting during the Battle of Fallen Timbers on August 20, 1794. While standing on the rock and talking to his troops, he was struck and killed by an American rifle shot. For many years afterward, Native Americans passing through the valley would pause and burn sacred tobacco at the rock in tribute to Turkey Foot’s bravery.

River Mile 22.4 - Farnsworth Metropark
One of the most notable features of Farnsworth Metropark is "Roche de Bout," a very large limestone outcropping in the Maumee River. Long before the arrival of European settlers into the Maumee Valley, Roche de Bout was an important meeting place for early Native Americans from throughout the Maumee Valley and Great Lakes region. Unknown to most people, the Bowling Green Fault runs right through Roche de Bout.

Excellent macroinvertebrate samples may be taken just upstream of Roche de Bout where shallow to knee-deep riffles stretch from Farnsworth Metropark on the north bank to nearly the south bank in Wood County. SQM sampling frequently yields excellent ratings as many pollution intolerant species reside in the cobblestones and boulder rapids. Numerous dragonfly nymphs may also be found in the water willow along the Farnsworth river wall.

Algae growth on the stepped bedrock can make wading treacherous in fast-moving currents during high water periods, so additional caution should be observed under these conditions.

River Mile 25.10 - Weir Rapids
Weir Rapids is located adjacent to a public fishing access owned and administered by the Ohio Division of Wildlife. This is a beautiful site along the Maumee, formed as the river cascades over a series of limestone “steps.” However, recent development along the southern bank has resulted in erosion and increased soil sediments which threaten this site. Weir Rapids provides frequent opportunities for observing great blue herons and egrets congregating in the shallows. Bald eagles feed in this area as well.

Macroinvertebrate populations at Weir Rapids are variable, depending upon the composition of the river bottom. Scoured areas in the rapids have bottoms comprised of bedrock, thereby providing little or no suitable habitat. However, where cobblestones and boulders are present, they teem with mayfly nymphs, freshwater clams, caddisfly larvae and crayfish. As a result of habitat inconsistencies, the CIVs for this site also vary.

River Mile 26.9 - Otsego Park
Otsego Park reflects Wood County Park District's concern for the preservation of the Maumee River habitat above and below its banks. Spring SQM participants may spot doe with fawn in the newly green flood plain, as well as a number of migratory birds that find shelter provided by the steep bank below adjacent S.R. 65.

The riverbed consists of cobblestones, gravel and occasional boulders, providing a good habitat for aquatic macroinvertebrates. Although the water flow here is fairly slow moving for this powerful river, SQM participants must exercise caution, as the current can be swift between the island and the bank. Otsego Park is a beautiful spot for family or school group outings as Wood County Park District maintains a nature center in the WPA-built shelter house on the high south bank.

River Mile 31.5 - Grand Rapids *(non-reference site)*
Although this was once an excellent reference site monitored by Otsego Schools, broken glass and abandoned lures have made this location unsuitable for volunteer participation. The official reference site is present downstream from Providence Dam along the river wall at River Mile 32.0.
Access is convenient through a number of small park areas administered by the village of Grand Rapids or at Mary Jane Thurston State Park. On the north shore of the river, visitors to Grand Rapids may wish to tour Providence Metropark and the restored Ludwig Mill.

River Mile 32.0 - Downstream of Providence Dam
The Providence Dam was built in 1838 to form a water supply reservoir for the Miami-Erie canal's final stretch to Maumee Bay. In 1997. the dam was renovated with public canoe access constructed downstream. Although this site can be treacherous with the strong current flowing from the spill over the dam, riffles comprised of cobble, boulder and gravel provide excellent macroinvertebrate habitat downstream of the dam.

Providence Metropark not only provides beautiful access to this frequently monitored site, but is home to a fully restored water-powered saw and grist mill and offers historical interpretations and mule-powered canal boat rides through a working, original lock from the Miami-Erie Canal days.
This site has become the reference site as of 2002, in place of River Mile 31.5 at Grand Rapids.

River Mile 54.9 - Florida Bridge *(non-reference site)*
The village of Florida was founded in 1834 and, like many small villages along the Maumee, enjoyed flourishing trade during the canal era before fading with the demise of the canal. The village is notable due to its construction on what was once a great Native American village called "Snaketown."

Public parking is available on the north river bank upstream of the bridge. Although a clear riffle is not indicated in the 1-2 feet water depth that normally flows beneath Florida bridge, this site has been monitored in the recent past by Defiance College classes and adult special interest groups. Approximately 1 mile east of the village, a spillway to the Miami-Erie canal provides hiking trails and yet another interesting perspective on the Maumee's diverse history.

River Mile 59.8 - Independence Dam State Park
Independence Dam State Park provides interesting and safe access to this reference station. Located on the north shore of the river immediately adjacent to U.S. Route 424, this site is another very high-quality sampling area on the Maumee River. Located downstream from the dam, numerous riffle areas provide a large number of areas to sample. During periods of high water, this area is treacherous to wade.

The riverbed consists of cobblestones, gravel and boulders, providing exceptional habitat for aquatic macroinvertebrates. Although mayfly nymphs and caddisfly larvae are abundant at this site as well as other pollution-intolerant species such as the occasional dobsonfly larva. Historically, CIVs reflect the abundance of more tolerant organisms such as crayfish, damselfly nymphs and leeches, although more recently the scores have greatly improved.

Beaver Creek Tributary - Opdycke Park, Pulaski *(non-reference site)*
This Williams County tributary of the Tiffin River, which in turn is a tributary of the Maumee River, is monitored regularly by a nonprofit organization that maintains SQM equipment to sample at the Gordon Creek and Independence Dam monitoring sites.

Monitoring participants at Beaver Creek will appreciate an unconsolidated artesian basin rich with aquatic life. The non-reference monitoring site at Opdycke Park, located at the corner of Williams County Roads I and 16 north of Bryan, features 50 acres of gently rolling woodland, pasture and orchard. Visitors to the site may also enjoy the hiking trails, a picnic area and a blue grass band on warm summer evenings.

River Mile 81.5 - Gordon Creek
A new site in 2000, this location was established as a reference site in order to provide more accessible monitoring in the western reaches of the Maumee Scenic River designation. SQM is performed at the mouth of Gordon Creek just downstream from the recently constructed Gordon Creek Bridge.

Although not suitable for more than four vehicles, off-road parking is available and the bank is gradual for easy access. The river bottom is largely comprised of limestone cobblestones underneath 1-2 feet of water and a heavy layer of silt deposited by Gordon Creek's load of agricultural run-off. Although a good riffle is not readily accessible, pollution-intolerant mayfly nymphs may be found occasionally with more tolerant organisms, such as dragonfly nymphs.

River Mile 99.1 - Antwerp Village Park
The village of Antwerp provides a fine setting for a day of environmental education in its park on the high bank above the upper-most reference site on the Maumee River. Tall trees provide shade for mid-summer SQM participants as they descend a steep series of steps to follow a sloping physical fitness trail to the riverbank.

The river bottom is largely comprised of limestone cobblestones under about 1-2 feet of swiftly flowing water. The effects of agricultural runoff may be clearly detected by SQM participants who sample in spring, summer and fall. Although not ideal habitat, mayfly nymphs, clams and crayfish are among some of the organisms that may be found at this site.

Sampling Results and General Trends

As indicated in Table 2 (page 13), stream quality monitoring on the Maumee River yielded an improved variety of macroinvertebrates at most reference sites as compared to results recorded from recent seasons. One contributing factor may be that water levels during the spring months were very similar to those encountered in 2007, allowing for new hatches not subjected to destruction by flash-flooding as well as safer monitoring conditions. According to USGS Water Watch (http://water.usgs.gov/waterwatch/?m=nwc&r=us&ym=) average stream flow was in the normal range during the spring months of April and May compared to percentiles of historical stream flow for those calendar months, but above normal in June and July. Overall, the National Climatic Data Center states that since 1895, 2008 was the 54th wettest and 61st driest year in Ohio on record (http://www.ncdc.noaa.gov/oa/climate/research/prelim/drought/st033dv00pcp.html).

Stream flow averages returned to normal in August and continued at normal levels through the rest of the season. This was in sharp contrast to the fall of 2007 when August storm events led to stream flows much above normal, resulting in major flooding throughout Northwest Ohio which limited accessibility for SQM. In fact, this year the time period from late August throughout September was considered abnormally dry throughout most of the Sandusky River watershed as well as the central and eastern portion of the Maumee River Watershed (U.S Drought Monitor Archives http://www.drought.unl.edu/dm/archive.html). Along with high winds, Hurricane Ike did bring some moisture in mid-September. Conditions improved somewhat in October in the northern portions of both watersheds, according to this same source. Both watersheds continue to be abnormally dry as of this writing.

In its eighth year of inclusion in Scenic River water quality assessment, the sediment stick continues to dramatically exhibit the greatest pollution problem facing Northwest Ohio's waterways. The purpose of sediment monitoring is to estimate the amount of soil sediment impacting a stream by estimating the turbidity of total suspended solids (TSS) in the water. Sediment stick readings were taken at all sites in 2008, and results showed impaired water quality especially following heavy precipitation.

Volunteer and staff data are used for the Ohio SQM Project as a water quality-screening method. The data helps in detecting significant changes in stream quality based on CIV data from sites that have been monitored for many years over time by staff and trained volunteers. In the event that significant CIV declines are noticed for a particular site, potential problems that may be causing stream degradation can be further investigated and addressed.

The staff of the Ohio Scenic Rivers Program appreciates the assistance we received from our dedicated volunteer monitors. It is only through their efforts that it was possible to complete SQM sampling in the Maumee River watershed during 2008. Working together has produced significant results **but additional volunteers are needed to monitor at all reference sites** to ensure accurate and thorough data. For more information, please contact the Northwest Ohio SQM Coordinator or the Northwest Ohio Scenic River Manager at 419-981-6319.

Total Suspended Solids (TSS)

In 1999, the Scenic River Program added Total Suspended Solids (TSS) monitoring to the Stream Quality Monitoring (SQM) Project. The purpose of this addition is to estimate the amount of soil sediments impacting a stream by estimating the turbidity of the water. These sediments are attributed to problems originating upstream of the sampling site. The equipment is calibrated to predict TSS at 90% accuracy. The measurements are accurate enough to determine the changes in sediment rates in a stream at a given location and time.

Variables such as amount of precipitation, slope and gradient of the river system, soil type, time of year data is collected, amount of development and riparian corridor, velocity of the river flow, and the amount of waste water effluent have an effect on the TSS value.

Precipitation amount is important because of the increased potential for sediments to be carried into the river during a rain event. The TSS value may appear higher than normal if precipitation amounts are not taken into account. Since large rain events usually happen in the spring and early summer, the time of year the samples are taken could affect the TSS score. The gradient of the stream is important as well. Sediments do not settle out as easily in high gradient streams because the velocity of the water washes it downstream. In low gradient streams, sediment has a chance to settle out, resulting in a lower TSS value. Soil types impact TSS values because some soil types erode faster than others. A better understanding of the types of soils within the watershed may give way to a better understanding of the baseline TSS values for a stream.

Development in an area can cause changes in the TSS score. Areas cleared for new buildings are often not covered, causing an acute rise in the amount of suspended solids in nearby streams. Impermeable surfaces can also cause chronic elevation of TSS values because there is no buffer to absorb or trap runoff. Wastewater treatment plant effluent would only affect TSS scores in low flow situations, and only if the plant employs only primary or secondary treatment.

The actual process of taking a sample is simple. Using a clear Lucite sediment stick developed by the Lake Soil and Water Conservation District, a water sample is collected from the stream. Keeping the sample materials suspended, water is then poured out of the tube until the 0.4-inch target dot is visible on the tube bottom. A reading of the water column height is taken from the markings on the stick to the nearest ¼ inch. A conversion table is then used to convert the sediment stick reading to a total suspended solids measurement in the form of an estimate of the weight of solids suspended in the water column (mg/L).

The TSS measurement can further be used to estimate water quality through the use of the following scale:

TSS <10 mg/L = excellent water quality
TSS 10-28 mg/L = normal water quality
TSS 29-133 mg/L = impaired stream
TSS >133 mg/L = severely impacted stream

2008 TSS Results: A total of 30 TSS readings were taken on the Maumee River. The Maumee River had a median of 52.8 mg/L of TSS, which corresponds to the impaired range. The data set ranged from 8 mg/l to as high as 113 mg/L of total suspended solids.

Comparisons of Collected Stream Quality Monitoring Data

Monitoring of the same reference station is performed a minimum of three times per year consistently year after year. An assessment of the diversity and tolerance levels of taxonomy collected generates the Cumulative Index Value (CIV) for the site on a given date. Field assessment results are used as basic indicators of long-term changes in a stream's macroinvertebrate community and help Scenic Rivers staff identify pronounced stream quality problems.

Table 1 identifies the 20 macroinvertebrates assessed and their general tolerance to pollutants. Pollution-intolerant organisms, such as those listed in Group I, require unpolluted, high quality water in order to survive. Pollution-tolerant organisms, such as those listed in Group III, are extremely tolerant of deteriorated water conditions.

Table 1. Macroinvertebrate Pollution Tolerance

Group I Taxa Pollution Intolerant	Group II Taxa Moderately Tolerant	Group III Taxa Pollution Tolerant
Water Penny Beetle Larvae (WP) Mayfly Nymphs (MF) Stonefly Nymphs (ST) Dobsonfly Larvae (DO) Caddisfly Larvae (CD) Riffle Beetle Adult (RI) Other Snails (OS)	Damselfly Nymphs (DA) Dragonfly Nymphs (DR) Crane Fly Larvae (CR) Beetle Larvae (BL) Crayfish (CF) Scuds (SC) Clams (CL) Aquatic Sowbugs (SW)	Black Fly Larvae (BF) Aquatic Worms (AW) Midge Larvae (MI) Pouch Snails (PS) Leeches (LE)

Table 2 on the following page represents the mean CIV for each Stream Quality Monitoring reference station sampled on the river during 2008. In addition, the table uses symbols (◆) to indicate those macroinvertebrates found to be present at least once during the year at the respective reference station. Each macroinvertebrate is identified by a 2-letter code given in Table 1. CIV values of 23 or greater indicate Excellent stream quality; CIV values of 17-22 indicate Good stream quality; CIV values of 11-16 suggest Fair stream quality; and CIV of 10 or less reflect Poor stream quality. Situated beside the CIV are the symbols + (improved), = (equal), or – (lower) indicating the relationship to the previous years CIV.

For the full range of CIV attained at all sites monitored during the year including non-reference stations, please see the *Appendix.*

Table 2. Maumee River 2008 Mean CIV by Reference Station

STATION	WP	MF	ST	DO	CD	RI	OS	DA	DR	CR	BL	CF	SC	CL	SW	BF	AW	MI	PS	LE	CIV
16.6	◆	◆			◆	◆	◆				◆	◆		◆		◆	◆	◆		◆	18-
22.4		◆	◆		◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	20+
25.1		◆			◆	◆	◆				◆	◆	◆	◆	◆	◆	◆	◆		◆	21+
26.9		◆			◆	◆	◆				◆	◆		◆		◆	◆	◆		◆	18+
32.0		◆			◆	◆	◆	◆	◆	◆	◆	◆		◆			◆	◆		◆	19-
59.8		◆	◆		◆	◆	◆				◆	◆		◆			◆	◆	◆	◆	20-
81.5	◆	◆			◆	◆		◆	◆		◆	◆		◆			◆	◆			12-
99.1		◆			◆	◆		◆	◆		◆	◆		◆			◆	◆			16+

Figure 1.1 represents the maximum and minimum range of CIV recorded during the year for each reference station. Figure 1.2 represents mean CIV at each reference station over many years.

Figure 1.1. Maumee River CIV Max and Min Ranges 2008

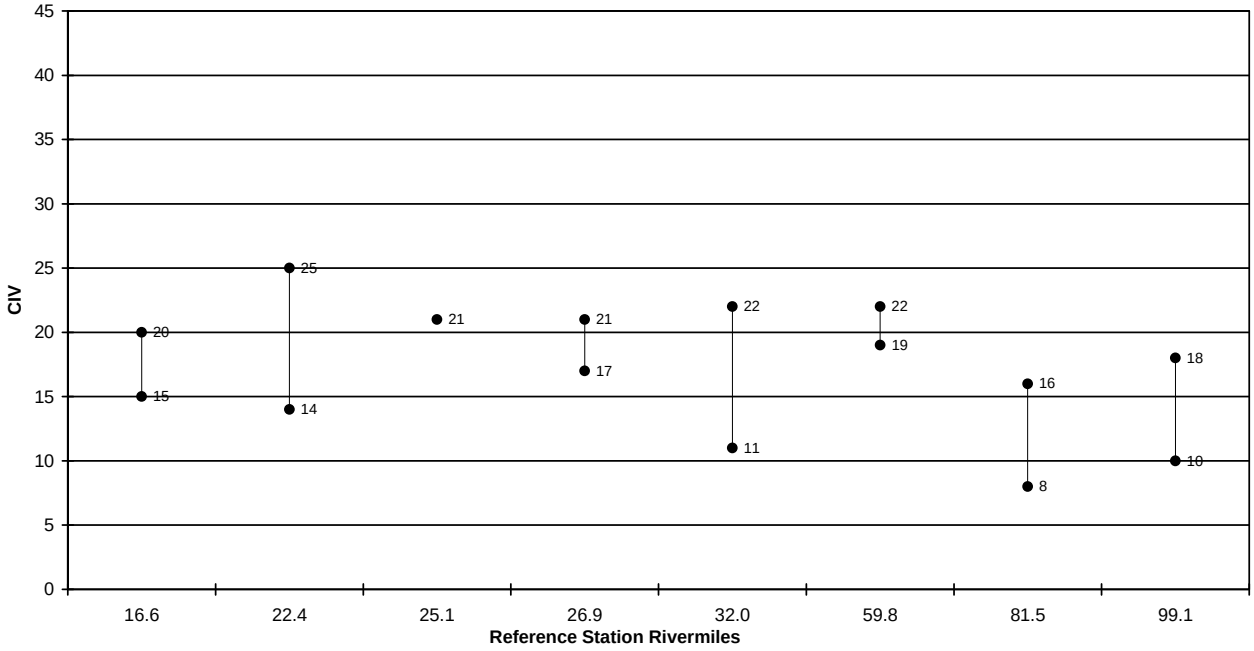
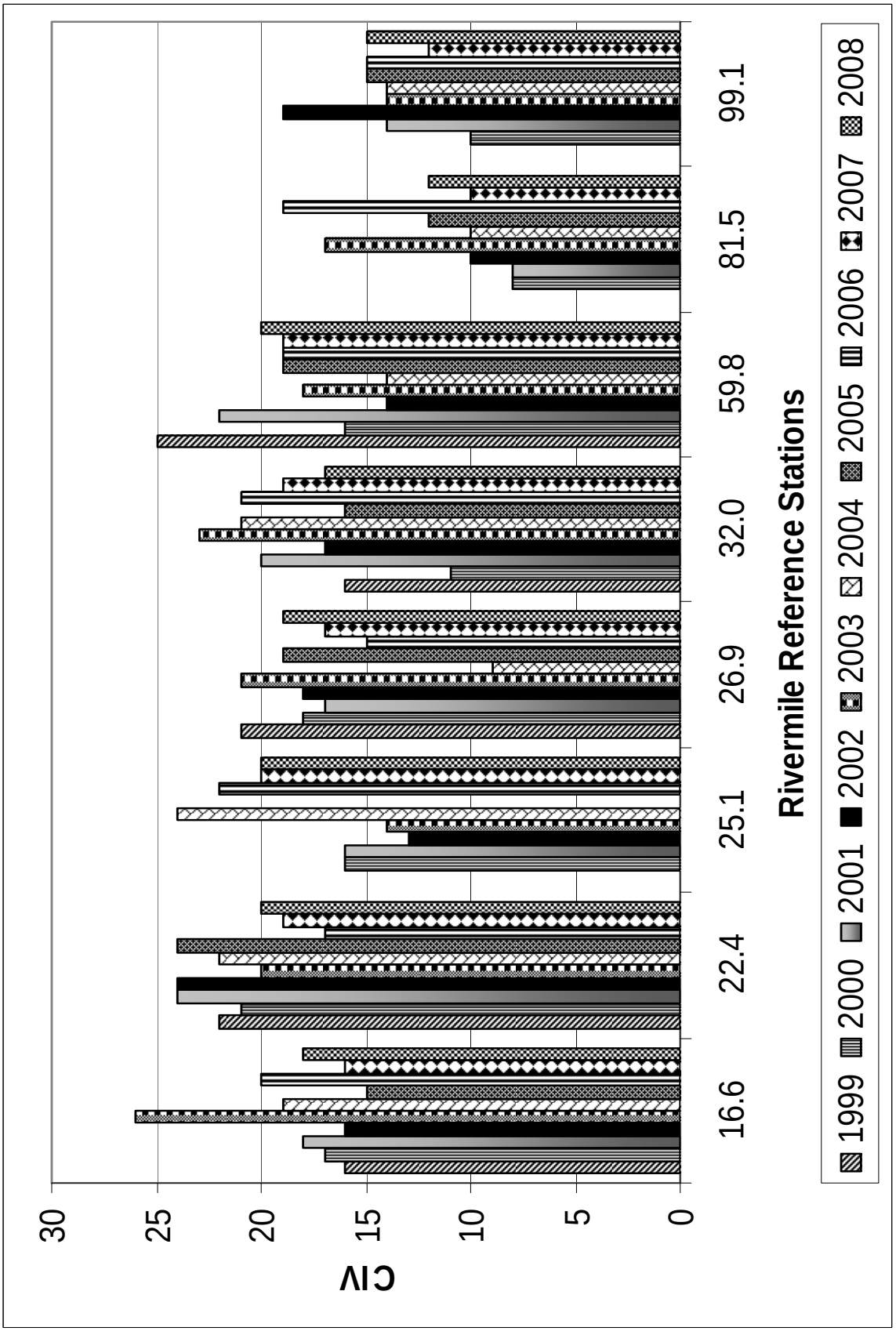


Figure 1.2. Maumee River Mean CIV 1999 – 2008



Appendix
Stream Quality Monitoring Data by Monitoring Station

2008 CIVs Monitoring Stations MAUMEE RIVER																						
STATION	DATE	WP	MF	ST	DO	CD	RI	OS	DA	DR	CR	BL	CF	SC	CL	SW	BF	AW	MI	PS	LE	CIV
16.60	5/21/2008		A					A			A	A			A			A	B		A	15.00
16.60	7/21/2008		B			C	A	C				A			B		A				A	18.00
16.60	9/26/2008		B			B	A	C				A			B		A	A	A		A	20.00
22.40	5/8/2008		A	A		A		A			A		A	A	A	A	A	A			A	25.00
22.40	5/31/2008	B	C			C		C	A	B			A		A					A		21.00
22.40	7/19/2008		A			B	A	A	A			A	A	A	A		A					23.00
22.40	8/16/2008		C	B		C		C	B				C		B					C	C	20.00
22.40	8/18/2008						B	B				B	A	B	B	B				A	A	20.00
22.40	9/20/2008					A	A	B	A				A	A				A	A			17.00
22.40	9/20/2008	A					A	C	A					A		A		B	A		B	18.00
22.40	9/20/2008		C			B		C	B				B		A			A			A	17.00
22.40	9/26/2008		A			A	A	C				A	A					A	A		A	19.00
22.40	9/26/2008		A			A	A	B	A			A	A	A				A	B		A	23.00
22.40	10/21/2008		A					C	A					C	A			A			A	14.00
25.10	6/24/2008		B			B	A	B				A	A		A		A		A		A	21.00
25.10	7/21/2008		A			B	A	A				A		A	A			A	A		A	21.00
25.10	9/26/2008		A			A	A	C				A	A					A	A		A	19.00
26.90	6/24/2008		B			B		C				A	A		B		A	A	A			18.00
26.90	7/21/2008		B			B	A	C				A			B			A				17.00
26.90	9/26/2008		B			C	A	C				B	A		B			B	A		A	21.00
32.00	5/21/2008		A					A							A			A	A		A	11.00
32.00	7/19/2008		B			B		B	A	B			A		B			A		A		17.00
32.00	7/19/2008		A			B	A	B					A		A			A	A		A	19.00
32.00	9/26/2008		A			C	A	C			A	B	A		B			B			A	22.00
59.80	5/21/2008		B	A		B	A	B				A			A			A	A		A	22.00
59.80	6/24/2008		B	A		A	A	B					B		B					A		20.00
59.80	7/19/2008		A			A	A	B				A	A		B						A	19.00
59.80	10/4/2008		A			B	A	A				A	A		B			A	A			20.00
81.50	5/21/2008	A							A	A									A			8.00
81.50	7/19/2008		A				A		A				B		A							12.00
81.50	10/4/2008		B			B	A					B	A		B			B				16.00
99.10	5/21/2008		A						A	A		A							A			10.00
99.10	7/19/2008		A			B	A					A	A		B				A			16.00
99.10	10/4/2008		B			B	B		A			B	A		B			A				18.00