Sandusky State Scenic River
2008 Stream Quality Monitoring Annual Report

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Introduction

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 detect and address 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 Ohio 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.

Sandusky State Scenic River
Overview

In January 1970, the director of the Ohio Department of Natural Resources designated approximately 70 miles of the Sandusky River as Ohio's second scenic river from U.S. 30 in Upper Sandusky to the Roger Young Memorial Park in Fremont. The southern two-thirds of the designated portion of the river flows through the farmlands of Wyandot and Seneca counties, carving its valley through 10 to 50-foot-high dolomite and limestone outcroppings. The northern portion of the Sandusky River flows through bedrock scoured by receding glaciers more than 13,000 years ago. North of Fremont, the Sandusky River flows approximately 15 miles before emptying into Sandusky Bay and Lake Erie.

Deriving its name from the native *"sa-un-dustee"* or *"water within pools",* the Sandusky River is remote and scenic. As a result, the Sandusky is home to Ohio's largest inland nesting bald eagle population. While canoeing during the summer and fall months, it is not uncommon to observe a number of eagles fishing and resting along the heavily forested river corridor. To protect the eagles during critical nesting periods, canoe traffic is restricted during the late winter and early spring.

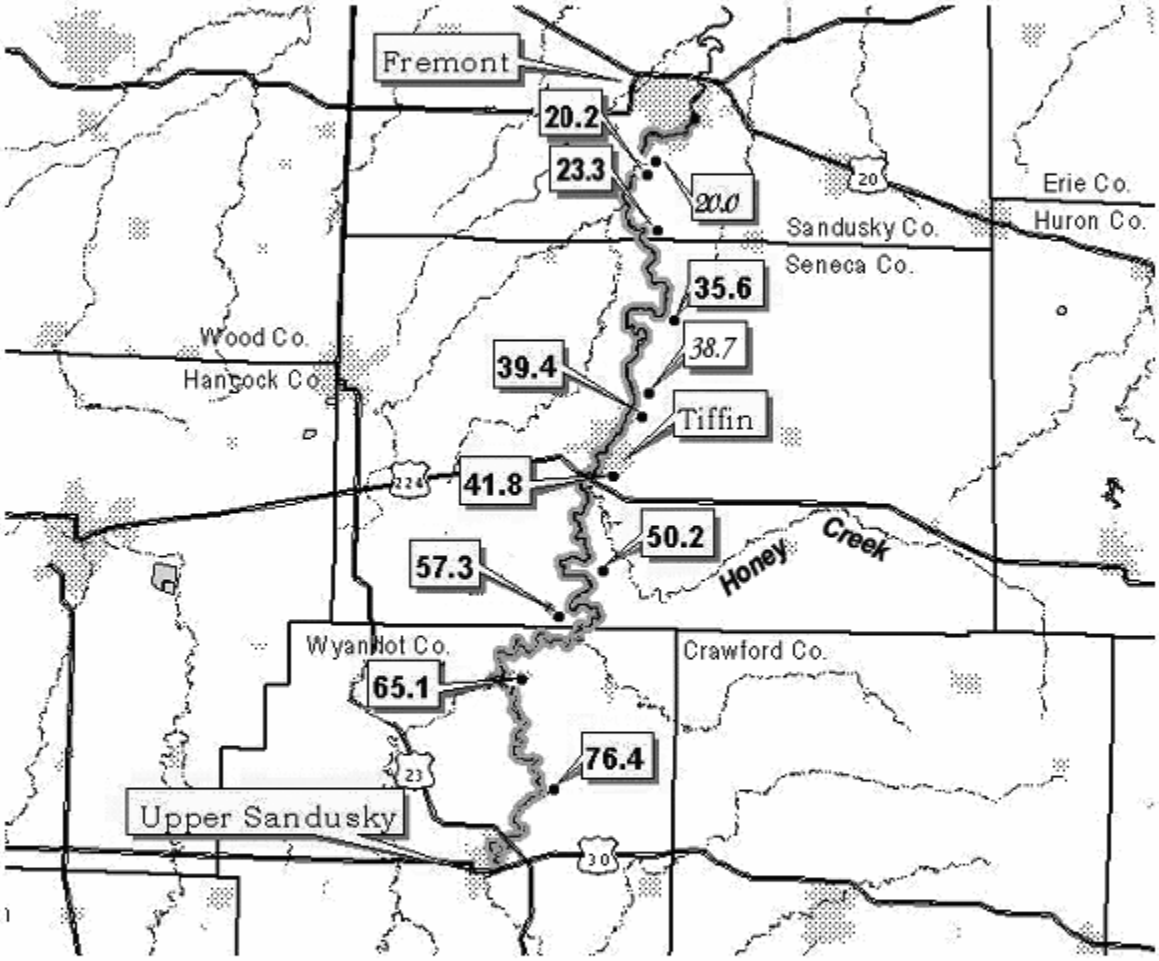
The Sandusky River valley also played an important role in Ohio's history. Several forts were constructed in the valley, including Fort Stephenson, site of an important victory in the War of 1812. The Sandusky was also home to the Seneca and Wyandot Indians. In gratitude for the Wyandot's support during the war, the Federal Government constructed Indian Mills in 1820 in what was then, the last native reservation in Ohio. One of the two mills is restored and maintained for public visitation by the Ohio Historical Society.

Aquatic life within the Sandusky is rich and diverse. In addition to numerous macroinvertebrates, such as dobsonfly larva, mayfly nymphs and many others, the Sandusky River is home to 68 species of fish, including large spring spawning runs of white bass and walleye. The Sandusky River also possesses healthy populations of pollution-sensitive fish, such as rainbow and fantail darters. Additionally, the Sandusky is the only river in Ohio that supports all six species of redhorse suckers. Redhorse suckers are further indicators of exceptional water quality.

Public access to the Sandusky River is available at several scenic river access areas administered by the Division of Natural Areas and Preserves and the Sandusky County Park District. Information about public access facilities on the Sandusky State Scenic River is available by contacting the Northwest Ohio Scenic Rivers Coordinator at 419-981-6319 or the Division of Natural Areas and Preserves at 614-265-6453 or visit www.ohiodnr.com/dnap.

SANDUSKY RIVER

Stream Quality Monitoring Sampling Stations



Key

Bold = Reference Stations

Italic = Non-Reference Sampling Stations

= Scenic River Designation

- Designated scenic on January 5, 1970.
- Designated scenic from US Route 30 in Upper Sandusky to Roger Young Memorial Park in Fremont.
- Miles Designated: 65

5 0 5 10 Miles

Map Created By:
Ohio Department of Natural Resources
Division of Real Estate & Land Management
GIS/Remote Sensing Services
(614) 265-6769

Source: Sampling Stations — Ohio Department of Natural Resources, 2000
Hydrography — United States Geological Survey, 1926
Political Boundaries — Ohio Department of Transportation, 2000
Roads — United States Geological Survey, 1926

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 Sandusky River. Their time and dedication to this river and the Ohio SQM Project are greatly appreciated.

River Mile 20.2 - Tindall Bridge
Volunteers are needed at this site.

River Mile 23.3 - Wolf Creek Park Picnic Area/Canoe Launch
Debbie Haubert for Sandusky County Park District

River Mile 35.6 - Izaak Walton League River Access
Izaak Walton League - Mario Livojevic and Bill Riley

River Mile 39.4 – Pioneer Mill
Volunteers are needed at this site.

River Mile 41.8 - Ella Street Bridge
Volunteers are needed at this site.

River Mile 50.2 - St. John's Bridge
Casey and Shelby Monroe
Linda Rose for Seneca County Park District

River Mile 57.3 – Mexico Bridge
Volunteers are needed at this site.

River Mile 65.1 – County Highway 16 Bridge
Volunteers are needed at this site.

River Mile 76.4 - Indian Mill Scenic River Access
Volunteers are needed at this site.

The continued success of the Ohio SQM Project is dependent upon the commitment and dedication of these (and other) volunteers and participants. We would like to acknowledge volunteers Linda Rose for Seneca County Park District, Debbie Haubert for Sandusky County Park District, and Bill Riley with the Izaak Walton League for monitoring their site at least three times during the season. If you would like to 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 sites along the Sandusky River have been selected based upon their ease of access, macroinvertebrate habitat and adequate sampling areas. Many riffle areas on the upper segment of the Sandusky, are widely dispersed, with many sites on private property or inaccessible. The lower Sandusky (from Tiffin south) is much more accessible, lending itself more readily to SQM activities. Brief summaries of the SQM stations on the Sandusky Scenic River follow:

River Mile 20.2 - Tindall Bridge
This site replaced Fremont's Hayes Avenue Bridge as the northern-most reference station on the Sandusky River, as Hayes Avenue Bridge was outside the Scenic River designation. Previously a non-reference site as access was treacherous to school groups due to refuse left by weekend and nocturnal recreators, Tindall Bridge and the surrounding area was reclaimed by officials when the bridge was restored in 2000.

Although years of flooding have scoured cobblestones and gravel from the area, shallow rapids on stepped bedrock make for provide habitat for aquatic macroinvertebrates. Historically, the site teamed with such pollution-intolerant species as dobsonfly larvae.

River Mile 23.3 - Wolf Creek Park, Sandusky County Park District
Wolf Creek Park is a scenic river area managed by the Sandusky County Park District. In addition to providing ideal habitat, this area is well maintained and a safe access point for enjoying the river. The extensive riffle can be located by entering the boat launch entrance, walking a short distance down the footpath and traversing the thick riparian shrubbery to the river's edge.

The river bottom is a mixture of sand, gravel, cobblestones and occasional boulders. In low to moderate flow, there are at least 20 suitable riffle areas. Cumulative Index Values (CIV) consistently rate in the excellent category with nearly all taxa of pollution-intolerant organisms represented.

River Mile 35.6 - Izaak Walton League River Access
Located on grounds preserved by the Izaak Walton League, this site is monitored by its members and may be accessed by permission only.

River Mile 38.7 - City of Tiffin Wastewater Treatment Plant *(non-reference site)*
Although monitoring at this site helps to evaluate the effect of Tiffin's treated wastewater discharge into the Sandusky Scenic River, the lack of suitable habitat has contributed to ever lowering scores. As regular sampling is done upstream in more ideal macroinvertabrate habitat at RM 35.6 and RM 39.5, this site is now considered non-reference and will not be regularly sampled in future.

River Mile 39.2 - Huss Street Bridge, City of Tiffin *(non-reference site)*
The river bottom is similar to river mile 38.70, although more cobbles are present here than at the treatment plant site. The substrate composition has been depleted to the degree that sampling at this site has been discontinued in favor of monitoring at Pioneer Mill (RM 39.5) where habitat is more conducive to macroinvertabrate populations.

River Mile 39.4 – Pioneer Mill, City of Tiffin
Although Pioneer Mill stopped grinding flour and meal in 1950, human activity has combined with the natural cycle of the Sandusky River to set the stage for good and safe stream quality monitoring. A major flood in 1913 created a "stone island", a two acre mound of bricks and paving stones that were deposited in the Sandusky River downstream from the mill's stone dam (c. 1921) and an existing island. Although these bricks and stones were crushed with grinders powered by the mill and used to repave the streets of Tiffin, remnants still mix with cobbles and gravel to house a diverse population of pollution tolerant and intolerant macroinvertebrates.

Pioneer Mill itself became a restaurant in 1974 and was placed on the national register of historic places in recognition of its background. This site has been sampled in recent years for public education events.

River Mile 41.8 - Ella Street, City of Tiffin
The Ella Street sampling site is the last of three sampling stations within the city of Tiffin.
Access to this particular site is difficult due to steep banks and riprap erosion control installed by the city of Tiffin. Caution is required when sampling in this area. To find adequate riffle areas, it is advantageous to search just upstream from the bridge from the western bank.

The stream bottom is a good mixture of sand, gravel, cobblestones and boulders, providing excellent habitat for mayfly nymphs, stoneflies, caddisflies and numerous other insect larvae. CIVs for this site are consistently in the excellent range.

River Mile 50.2 - St. John's Bridge (former site of St. John's Dam)
This site is located on Seneca County Road 6 between State Routes 231 and 53 immediately downstream from the former St. John's Dam which was removed in Fall 2003. This area has excellent smallmouth bass fishing, aided no doubt, by the diverse and abundant macroinvertebrate population found here. A small parking lot provides easy access, although the area is undeveloped and poorly maintained.

This sampling site is a well-proportioned mixture of sand, gravel and cobblestones. During periods of low to moderate flow, this site has at least five riffle areas housing a thriving and diverse macroinvertebrate population. The CIVs for this site typically score in the good to lower excellent range.

River Mile 57.3 - Mexico Bridge
The removal of St. John's Dam in 2003 restored river areas upstream of the site to more natural levels and exposed new riffle areas which were previously inaccessible due to deep water. A series of riffles directly downstream from Mexico Bridge offers good habitat shaded on both banks by hardwood trees. The best access to the sand, cobble and boulder riffles is found below the steep bank on the west side of the river.

River Mile 65.1 - County Highway 16 Bridge
This privately owned site offers an excellent opportunity to sample in fast-moving, shallow riffles under the cool shade of large native hardwood canopy. The riffles to sample for SQM are located 1/10 mile upstream of the small county bridge and several deep pools. Many pollution-intolerant species may be found in the cobblestones, boulder and gravel rapids. The river should be entered from the east bank as steep banks and deep pools prevent safe access to samplers.

River Mile 76.4 - Indian Mill
Indian Mill is a restored gristmill owned by the Ohio Historical Society. Constructed by the Federal Government for the Wyandot Indians in 1820, Indian Mill and the adjacent timber dam

are popular fishing, picnicking and tourist attractions. Canoe and fishing access is readily available in the scenic river access area across from Indian Mill.

The river bottom is quite diverse, with sand, gravel and cobblestones covering the riffle area just below the bridge. Samples from this site are consistently excellent with a wide variety of macroinvertebrates.

Honey Creek tributary - Forrest Nature Preserve (non-reference)
This jewel of the Seneca County Park District is located on County Road 6 just a few miles east of the St. John's Bridge Sandusky River Access. A spacious gravel parking lot is available for public access but Honey Creek itself is buffered by hardwood riparian corridor. Maintained trails lead to easy-flowing riffles teaming with pollution-intolerant macroinvertebrates, such as stonefly and dobsonfly larvae.

Sampling Results and General Trends

According to USGS WaterWatch (http://water.usgs.gov/waterwatch/?m=nwc&r=us&ym=) average streamflow was in the normal range during the spring months of April and May compared to percentiles of historical streamflow for those calendar months, but above normal in June and July. Resulting flood levels and subsequent high turbidity may have contributed to "Good" CIV readings rather than historically "Excellent" sites such as Indian Mill (RMK 76.4).

Streamflow 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 streamflows 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. As noted above, all reference sites exhibited higher turbidity readings than in past years, some to the point of being severely impaired and not only after heavy precipitation. Interviews with local citizens and agencies are mixed in opinion as to the cause of high turbidity in Northwest Ohio, but lower CIVs (see Table 2) on almost all Sandusky River reference sites coincide with higher turbidity. Even without the flooding experienced in 2007, Group 1 macroinvertebrates such as dobsonfly larva, which are especially sensitive to heavy sediment loads, are found less frequently.

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 Sandusky 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 Ohio 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, amount of 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 Results: A total of 30 TSS readings were taken on the Sandusky River. Sandusky River had a median of 45 mg/L of TSS, which still corresponds to the impaired stream range. The data set ranged from 13 mg/L to as high as 113 mg/l of total suspended solids.

Graphic 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 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 of 23 or greater indicate *Excellent* stream quality; CIV of 17-22 indicate *Good* stream quality; CIV ranging from 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. Sandusky 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
20.2		◆		◆	◆	◆	◆	◆			◆	◆		◆			◆	◆		◆	18-
23.3	◆	◆			◆	◆	◆	◆		◆	◆	◆	◆	◆			◆	◆			19-
35.6		◆			◆	◆	◆	◆				◆		◆			◆	◆			23+
38.7		◆			◆												◆	◆			13+
39.2		◆			◆		◆	◆			◆						◆				18+
41.8	◆	◆	◆		◆	◆	◆	◆		◆	◆	◆		◆		◆	◆	◆		◆	22-
50.2	◆	◆	◆	◆	◆	◆	◆			◆		◆		◆			◆	◆			16-
57.3	◆	◆	◆	◆	◆	◆	◆				◆	◆		◆	◆		◆	◆	◆		15-
65.1	◆	◆			◆	◆			◆		◆	◆		◆							15+
76.4	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆			◆		◆		20-

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. Sandusky River CIV Max & Min Ranges 2008

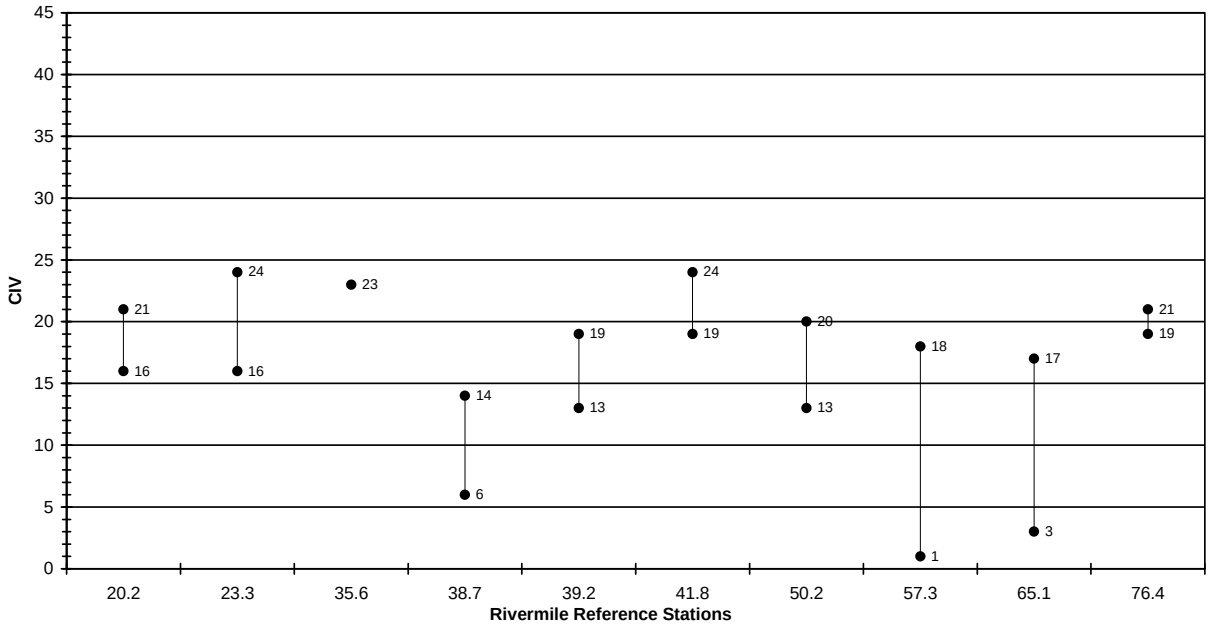
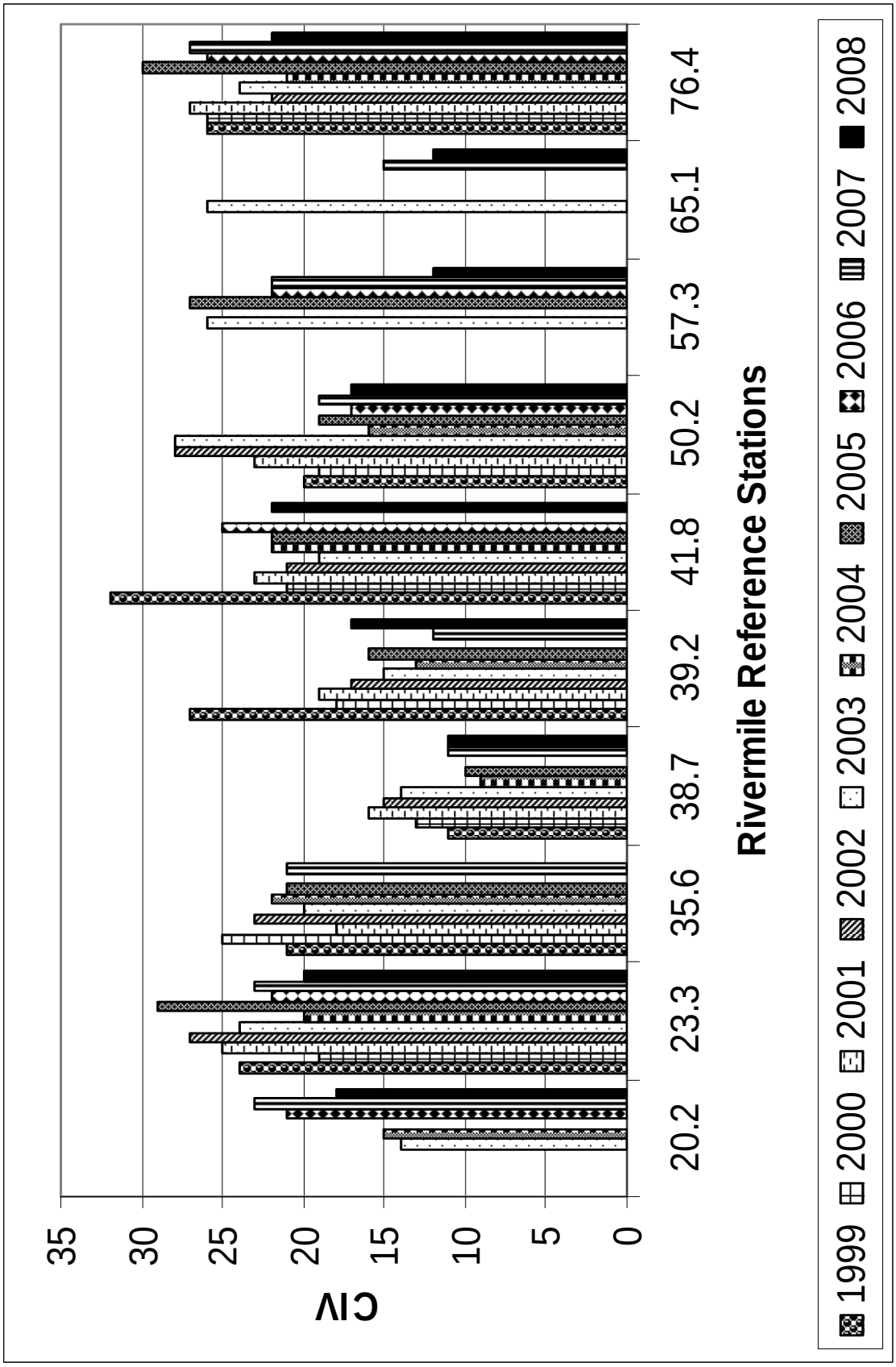


Figure 1.2. Sandusky River Mean CIV 1999 - 2008



Appendix
2008 Stream Quality Monitoring Data by Monitoring Station

2008 CIVs by Monitoring Station
SANDUSKY RIVER

STATION	DATE	WP	MF	ST	DO	CD	RI	OS	DA	DR	CR	BL	CF	SC	CL	SW	BF	AW	MI	PS	LE	CIV
20.20	6/11/2008		A	A		A		A				A	A					A	A			18.00
20.20	8/16/2008		B		A	B	B	C											A			16.00
20.20	10/16/2008	A	A		A	B	A	B							A				A			21.00
23.30	6/21/2008	A	B			B	A	B				A	A								A	20.00
23.30	8/2/2008	A	A			A	B	A									A					16.00
23.30	8/16/2008		B			B	A	B	A			A			A				A			19.00
23.30	9/6/2008	A	A	A		B	B		A				A		A		B				A	23.00
23.30	9/26/2008		A	A		A	A	A	A	A					A		A	A		A		24.00
23.30	9/29/2008		A		A	B	A	A	A									B				18.00
35.60	7/24/2008	A	B			B		B				A			A				A			17.00
35.60	8/13/2008		B		A	C	A	B			A	B			A			A	B			23.00
38.70	6/11/2008		A													A			A			6.00
38.70	8/21/2008		B		A	B	A					A						A	A			14.00
38.70	10/22/2008		A	A		B						A						A	A			13.00
39.20	6/21/2008	A	A			B	B					A	A	A				A				19.00
39.20	8/21/2008		B			C		A				A					A		A			13.00
39.20	10/22/2008	A	A		A	B						A			A		A	A				18.00
41.80	6/11/2008		A	A		A	A	A	A	A			A		A			A	A			22.00
41.80	8/21/2008		B			C	A	C				A			B			A	A		A	19.00
41.80	10/22/2008		B	A	A	C	A		A			A	A		A			B				24.00
50.20	5/29/2008	A	A			A		A					A		A			A				17.00
50.20	6/11/2008	A	A										B		A		A	A	A			13.00
50.20	7/21/2008	A	A			A		A					A		A							16.00
50.20	8/5/2008	A	A			A	A	A					A		A			A				20.00
50.20	9/29/2008		A	A	A	A		A					A		A						A	20.00
50.20	10/21/2008	A	A	A	A	A									A							17.00
57.30	6/11/2008																		A			1.00
57.30	6/21/2008	A	B			B	A					A	A		A							18.00
57.30	8/21/2008		B			C	A	A							A		A					15.00
57.30	10/22/2008	A	B	A		B		A														15.00
65.10	6/11/2008		A																			3.00
65.10	8/21/2008	A	B		A	B	A										A		A			17.00
65.10	10/22/2008		A			B	A					A			A			A	A			15.00
76.40	6/11/2008		A	A		B	A						A		A		A	A	A			19.00
76.40	8/21/2008	A	C			C	A	B				A			B			A	A			21.00
76.40	10/22/2008		A	A	A	B	A	A				A			B			A	A			26.00

2008 CIVs by Monitoring Station HONEY CREEK																					
STATION	DATE	WP	MF	ST	DO	CD	RI	OS	DA	DR	CR	BL	CF	SC	CL	SW	BF	AW	MI	PS	LE	CIV
0.00	5/29/2008	A	A	A		A	A	A					A		A						A	23.00
0.00	7/21/2008	A	A		A	A		A					A									17.00
0.00	8/5/2008	A	A	A	A	A	A	A					A									23.00
0.00	9/29/2008	A	A	A	B	A							A								A	18.00
0.00	10/21/2008	A	A	A	B	A		A													A	19.00