

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 147.0
04100001 020 Tenmile Creek; Ottawa River

Integrated Report Assessment Category: 5 **Priority Points: 3**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C,LRW Sampling Year(s): 1993, 1996, 2000,
Impairment: Yes 2002

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	13 Sites	5 Sites						
5-20 mi ²	8 Sites	3 Sites	19.0	16.7	64.3			
20-50 mi ²	3 Sites	0 Sites						
<hr/>						9	24	67
Large (Linear)								
50-500 mi ²	20.3 Miles	0.0 Miles	0.0	30.5	69.5			

High Magnitude Causes

Pesticides
Priority Organics
Thermal Modifications
Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Minor Industrial Point Sources Contaminated Sediments
Combined Sewer Overflow
Nonirrigated Crop Production
Land Development/Suburbanization
Landfills
Flow Reg./Mod. - Development
Removal of Riparian Vegetation - Dev
Streambank Destabilization - Dev

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other: A "Dermal Contact Advisory" is in effect for the Ottawa River due to PCB contamination. The area under the advisory is from I-475 north of Wildwood Preserve in Toledo to the mouth at Maumee Bay.

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Ottawa River)

Comments

Significant remediation of problematic sites (including closed landfills) in the lower Ottawa River watershed are actively underway. Site specific monitoring is occurring in the remediated areas on a regular basis. Future monitoring within the entire watershed will be conducted within the normal rotating basin schedule after the cessation of these projects and when sufficient recovery time has elapsed. Sampling was done in 2002 focusing on the Ottawa River and Sibley Creek in the immediate vicinity of the Dura Landfill.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 26.5
04100002 030 Bear Creek (River Raisin basin)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

This small basin has never been sampled for biological quality. All data (chemical only) are from the 1980s.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 25.2
04100003 010 East Branch St. Joseph River

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 14.9
04100003 020 West Branch St. Joseph River

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (West Branch St. Joseph River)

Comments

Sampling in the 1990s in this watershed found all sampling locations in full attainment of the designated aquatic life use. As such, this assessment unit was listed as Category 2 (unimpaired) in the 2002 Integrated Report. However, the 2004 Integrated Report assessment of fish tissue data documented body burdens of one or more pollutants at levels exceeding the threshold level upon which Ohio Water Quality Standards human health criteria are based which resulted in listing as impaired for fish consumption.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 123.5
04100003 030 St. Joseph River (East/West Branches to downstream Bear Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 5
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C,LRW Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes
Other Habitat Alterations

High Magnitude Sources
Nonirrigated Crop Production
Channelization - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 408
No. Ambient Sites: 0 No. Ambient Sampling Records: 0 75th %ile: 920
No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 79 90th %ile: 2500
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (St. Joseph River)

Comments

Biological and water quality data collected in 1992 were used in the 2002 Integrated Report which resulted in a Category 5 (impaired) listing for the aquatic life beneficial use. These data have since exceeded the ten-year threshold and are now considered historical. However, while reflecting the current status that no data are available to assess beneficial use status, the assessment unit will remain Category 5 until TMDLs for all beneficial use impairments are completed and approved by the USEPA. Additionally, the 2004 Integrated Report assessment of fish tissue data documented body burdens of pollutants at levels reflecting a violation(s) of Ohio Water Quality Standards criteria which resulted in listing as impaired for fish consumption.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 16.8
04100003 050 Fish Creek

Integrated Report Assessment Category: 5 **Priority Points: 2**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1999, 2002
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	1 Sites	0 Sites	0.0	100.0	0.0			
20-50 mi ²	Sites	Sites						
<hr/>						0	75	25
Large (Linear)								
50-500 mi ²	5.6 Miles	0.0 Miles	0.0	50.0	50.0			

High Magnitude Causes

Siltation

High Magnitude Sources

Nonirrigated Crop Production

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Extensive monitoring has been conducted since 1991 following a major spill and fish kill originating in Indiana.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 134.3
04100004 010 St. Mary's River (headwaters to downstream Sixmile Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C,LRW Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Channelization - Agriculture
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 436
No. Ambient Sites: 2 No. Ambient Sampling Records: 2 75th %ile: 800
No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 302 90th %ile: 1400
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: No Pollutant (Waterbody):

Comments

Biological and water quality data collected in 1991 were used in the 2002 Integrated Report which resulted in a Category 5 (impaired) listing for the aquatic life beneficial use. These data have since exceeded the ten-year threshold and are now considered historical. However, while reflecting the current status that no data are available to assess beneficial use status, the assessment unit will remain Category 5 until TMDLs for all beneficial use impairments are completed and approved by the USEPA.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²): 117.0**
 04100004 020 St. Mary's River (downstream Sixmile Creek to downstream Twelvemile
 Creek)

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C,LRW Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

Siltation
 Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
 Channelization - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: No Pollutant (Waterbody):

Comments

Biological and water quality data collected in 1991 were used in the 2002 Integrated Report which resulted in a Category 5 (impaired) listing for the aquatic life beneficial use. These data have since exceeded the ten-year threshold and are now considered historical. However, while reflecting the current status that no data are available to assess beneficial use status, the assessment unit will remain Category 5 until TMDLs for all beneficial use impairments are completed and approved by the USEPA.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11	WAU Description	WAU Size (mi²): 161.1
04100004 030	St. Mary's River (downstream Twelvemile Creek to upstream Twentyseven Mile Creek [IN])	

Integrated Report Assessment Category: 3	Priority Points:
Next Scheduled Monitoring: 2010	

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
<hr/>								
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact			
Impairment: Unknown			Geometric Mean:
No. Ambient Sites:	No. Ambient Sampling Records:		75 th %ile:
No. of NPDES MOR Sites:	No. of NPDES MOR Records:		90 th %ile:
Other:			

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: No Pollutant (Waterbody):

Comments

Available biological community data for this assessment unit were collected from the St. Marys River mainstem in 1991 or earlier and were regarded as historical. Fish tissue and sediment data were collected at a few locations between 1995-1999.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 26.0
04100004 040 St. Mary's River (upstream Twentyseven Mile Creek [IN] to upstream
Holthouse Ditch [IN])

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

This small basin has never been sampled for biological quality. Only habitat data (QHEI) were done associated with a 401 application.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 105.3**
 04100006 020 Bean Creek (downstream Lime Creek (Michigan) to downstream Mill
 Creek)

Integrated Report Assessment Category: 5 **Priority Points: 3**
Next Scheduled Monitoring: 2006

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C Sampling Year(s): 1997
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	2 Sites	0 Sites	0.0	58.4	41.6			
20-50 mi ²	3 Sites	0 Sites						
<hr/>						50	29	21
Large (Linear)								
50-500 mi ²	9.8 Miles	9.8 Miles	100.0	0.0	0.0			

High Magnitude Causes

Unknown Toxicity
 Nutrients
 Siltation
 Organic Enrichment/DO
 Other Habitat Alterations

High Magnitude Sources

Minor Municipal Point Source
 Combined Sewer Overflows
 Nonirrigated Crop Production
 Feedlots (Confined Animal Feeding Oper.)
 Channelization - Ag.
 Removal of Riparian Vegetation - Ag.
 Spills

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 79.9
04100006 030 Tiffin River (downstream Mill Creek to downstream Leatherwood Creek)

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2006

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1997, 2002
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	0 Sites						
5-20 mi ²	4 Sites	1 Sites	12.5	0.0	87.5			
20-50 mi ²	Sites	Sites						
<hr/>						13	0	87
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Siltation
Flow Alteration

High Magnitude Sources

Nonirrigated Crop Production

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: No Pollutant (Waterbody):

Comments

All biological data collected in 1997 were from tributaries within the watershed. The Tiffin River mainstem has not been sampled since 1992, with the exception of fish tissue sampling done in 1997.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 105.9
04100006 050 Lick Creek

Integrated Report Assessment Category: 5 **Priority Points:** 2
Next Scheduled Monitoring: 2006

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C Sampling Year(s): 1997
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	3 Sites	0 Sites						
5-20 mi ²	6 Sites	3 Sites	45.0	20.0	35.0			
20-50 mi ²	5 Sites	2 Sites						
<hr/>						22	52	26
Large (Linear)								
50-500 mi ²	10.1 Miles	0.0 Miles	0.0	83.8	16.2			

High Magnitude Causes

Nutrients
Siltation
Organic Enrichment/DO
Other Habitat Alterations

High Magnitude Sources

Major Municipal Point Source
Combined Sewer Overflow
Nonirrigated Crop Production
Range Grazing - Riparian
Urban Runoff/Storm Sewers (NPS)
Other Urban Runoff
Dredging - Development

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 148.2**
 04100007 010 Auglaize River (headwaters to downstream Pusheta Creek)

Integrated Report Assessment Category: 5 **Priority Points: 7**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 2000
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	9 Sites	7 Sites						
5-20 mi ²	15 Sites	14 Sites	92.8	5.5	1.7			
20-50 mi ²	5 Sites	5 Sites						
<hr/>						94	5	1
Large (Linear)								
50-500 mi ²	9.1 Miles	8.7 Miles	95.6	4.4	0.0			

High Magnitude Causes

Cause Unknown
 Unknown Toxicity
 Nutrients
 Siltation
 Organic Enrichment/DO
 Other Habitat Alterations

High Magnitude Sources

Combined Sewer Overflows
 Domestic Wastewater Lagoon
 Nonirrigated Crop Production
 Urban Runoff/Storm Sewers (NPS)
 Upstream Impoundment
 Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 891
 No. Ambient Sites: 35 No. Ambient Sampling Records: 101 75th %ile: 2200
 No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 26 90th %ile: 5560
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: No Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway in the upper Auglaize River watershed. Monitoring in support of TMDL development was conducted in 2000.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 99.9
04100007 020 Auglaize River (downstream Pusheta Creek to upstream Jennings Creek)

Integrated Report Assessment Category: 5 **Priority Points: 9**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s): 1994, 2000
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	6 Sites	2 Sites						
5-20 mi ²	5 Sites	1 Sites	13.3	60.0	26.7			
20-50 mi ²	2 Sites	0 Sites						
<hr/>						57	30	13
Large (Linear)								
50-500 mi ²	36.5 Miles	36.5 Miles	100.0	0.0	0.0			

High Magnitude Causes

Cause Unknown
Unknown Toxicity
Nutrients
Siltation
Organic Enrichment/DO
Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Industrial Point Source
Minor Municipal Point Source
Nonirrigated Crop Production
Channelization - Agriculture
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 406
No. Ambient Sites: 24 No. Ambient Sampling Records: 69 75th %ile: 1200
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 37 90th %ile: 3000
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs, mercury (Auglaize River)

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway in the upper Auglaize River watershed. Monitoring in support of TMDL development was conducted in 2000.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 134.3
04100007 030 Ottawa River (headwaters to upstream Little Ottawa River)

Integrated Report Assessment Category: 5 **Priority Points:** 2
Next Scheduled Monitoring: 2005

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C Sampling Year(s): 1996, 2001
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	0 Sites						
5-20 mi ²	1 Sites	0 Sites	0.0	0.0	100.0			
20-50 mi ²	Sites	Sites						
<hr/>						15	12	73
Large (Linear)								
50-500 mi ²	11.8 Miles	3.5 Miles	29.7	23.7	46.6			

High Magnitude Causes

Priority Organics
Unionized Ammonia
Organic Enrichment/DO

High Magnitude Sources

Industrial Point Source
Municipal Point Source
Combined Sewer Overflow
Urban Runoff/Storm Sewers (NPS)

Recreation Use Assessment

Subcategory of Use: Primary Contact

Impairment: Unknown

No. Ambient Sites:

No. Ambient Sampling Records:

Geometric Mean:

No. of NPDES MOR Sites:

No. of NPDES MOR Records:

75th %ile:

Other:

90th %ile:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes

FCA Issued: Yes

(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")

Impairment Due to FCA: Yes

Pollutant (Waterbody): PCBs (Ottawa River)

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 106.1
04100007 040 Ottawa River (upstream Little Ottawa River to upstream Sugar Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 6
Next Scheduled Monitoring: 2005

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C Sampling Year(s): 1996
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	0 Sites						
5-20 mi ²	4 Sites	0 Sites	0.0	50.0	50.0			
20-50 mi ²	Sites	Sites						
<hr/>						3	45	52
Large (Linear)								
50-500 mi ²	28.7 Miles	1.4 Miles	4.9	41.1	54.0			

High Magnitude Causes

Unknown Toxicity
Nutrients
Organic Enrichment/DO
Other Habitat Alterations
Pathogens

High Magnitude Sources

Industrial Point Source
Municipal Point Source
Combined Sewer Overflows
Urban Runoff/Storm Sewers (NPS)
Channelization - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 534
No. Ambient Sites: 1 No. Ambient Sampling Records: 2 75th %ile: 1500
No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 182 90th %ile: 4110
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Ottawa River)

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 124.7**
 04100007 050 Ottawa River (upstream Sugar Creek to mouth)

Integrated Report Assessment Category: 5 **Priority Points: 6**
Next Scheduled Monitoring: 2005

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1996, 1997
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites	0.0	16.7	83.3			
20-50 mi ²	6 Sites	0 Sites						
<hr/>						35	23	42
Large (Linear)								
50-500 mi ²	11.1 Miles	7.8 Miles	70.3	29.7	0.0			

High Magnitude Causes

Unionized Ammonia
 Organic Enrichment/DO
 Other Habitat Alterations
 Pathogens

High Magnitude Sources

Combined Sewer Overflows
 Channelization - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 879
 No. Ambient Sites: 1 No. Ambient Sampling Records: 1 75th %ile: 2800
 No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 76 90th %ile: 5180
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Ottawa River)

Comments

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²): 143.0**
 04100007 060 Auglaize River (upst. Jennings Cr. to upst. L. Auglaize R.); excluding
 Auglaize R. dst. Ottawa R.

Integrated Report Assessment Category: 5 **Priority Points: 9**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 2000
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	3 Sites	3 Sites						
5-20 mi ²	9 Sites	7 Sites	61.1	0.0	38.9			
20-50 mi ²	3 Sites	1 Sites						
						81	0	19
Large (Linear)								
50-500 mi ²	14.8 Miles	14.8 Miles	100.0	0.0	0.0			

High Magnitude Causes

Unionized Ammonia
 Nutrients
 Siltation
 Organic Enrichment/DO
 Flow Alteration
 Other Habitat Alterations

High Magnitude Sources

Minor Municipal Point Source
 Nonirrigated Crop Production
 Channelization - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 1090
 No. Ambient Sites: 34 No. Ambient Sampling Records: 82 75th %ile: 2375
 No. of NPDES MOR Sites: 0 No. of NPDES MOR Records: 0 90th %ile: 5160
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs, mercury (Auglaize River)

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway in the upper Auglaize River watershed. Monitoring in support of TMDL development was conducted in 2000.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 124.0
04100007 070 Little Auglaize River (headwaters to upstream Dog Creek)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: MWH-C,LRW Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment. The vast majority of the data are from 1983. Only reference sites have been sampled since then.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 106.2
04100007 080 Prairie Creek

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: MWH-C Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

The vast majority of the data in this watershed are from 1983. Only one site (biological reference site on Prairie Creek) has been sampled since then. Another survey of the watershed is needed to reassess the status.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 175.0
 04100007 090 Little Auglaize River (upstream Dog Creek to mouth; excluding Prairie
 Creek)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: MWH-C Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

The vast majority of the data in this watershed are from 1983. Only one site (biological reference site on Little Auglaize River) has been sampled since then. Another survey of the watershed is needed to reassess the status.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 97.6
04100007 110 Powell Creek

Integrated Report Assessment Category: 5 **Priority Points: 7**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s): 1997, 1999, 2000
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	2 Sites						
5-20 mi ²	1 Sites	1 Sites	62.5	0.0	37.5			
20-50 mi ²	4 Sites	1 Sites						
						31	0	69
Large (Linear)								
50-500 mi ²	2 Sites							
	6.9 Miles	0.0 Miles	0.0	0.0	100.0			

High Magnitude Causes

Nutrients
Siltation
Organic Enrichment/DO
Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
Hydromodification - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 1208
No. Ambient Sites: 11 No. Ambient Sampling Records: 35 75th %ile: 4300
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 18 90th %ile: 22560
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A TMDL is in progress for the upper Auglaize River basin. Sampling was done in 2000.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²): 178.7**
 04100007 120 Auglaize River (Flatrock Creek to mouth); excluding Powell Creek and
 Auglaize R. mainstem

Integrated Report Assessment Category: 5 **Priority Points: 2**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
<hr/>								
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

Siltation
 Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
 Channelization - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Biological and water quality data collected in 1991 were used in the 2002 Integrated Report which resulted in a Category 5 (impaired) listing for the aquatic life beneficial use. These data have since exceeded the ten-year threshold and are now considered historical. However, while reflecting the current status that no data are available to assess beneficial use status, the assessment unit will remain Category 5 until TMDLs for all beneficial use impairments are completed and approved by the USEPA.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 140.8
04100008 010 Blanchard River (headwaters to downstream Potato Run)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2005

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment. The last major Ohio EPA survey was conducted in 1989. Only a few reference sites on the Blanchard River mainstem have been sampled since then.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 133.4
 04100008 020 Blanchard River (downstream Potato Run to upstream Eagle Creek)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2005

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment. The last major Ohio EPA survey was done in 1989. Only a few reference sites on the Blanchard River mainstem have been sampled since then.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 115.0
04100008 030 Blanchard River (upstream Eagle Creek to upstream Ottawa Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 4
Next Scheduled Monitoring: 2005

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s): 1996, 2001, 2002
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	1 Sites						
5-20 mi ²	2 Sites	1 Sites	62.5	25.0	0.0			
20-50 mi ²	2 Sites	1 Sites						
<hr/>						41	53	6
Large (Linear)								
50-500 mi ²	12.5 Miles	2.5 Miles	19.7	80.3	0.0			

High Magnitude Causes

Cause Unknown
Nutrients
Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Major Municipal Point Source
Channelization - Development
Dam Construction - Development
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 148.9**
 04100008 040 Blanchard River (upstream Ottawa Creek to upstream Riley Creek);
 excluding Blanchard R.

Integrated Report Assessment Category: 5 **Priority Points: 3**
Next Scheduled Monitoring: 2005

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C,LRW Sampling Year(s): 1993, 1996, 1997,
 Impairment: Yes 2001

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	1 Sites						
5-20 mi ²	3 Sites	0 Sites	25.0	0.0	75.0			
20-50 mi ²	2 Sites	0 Sites						
<hr/>						46	0	54
Large (Linear)								
50-500 mi ²	3.0 Miles	2.0 Miles	66.7	0.0	33.3			

High Magnitude Causes

Nutrients
 Flow Alteration
 Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
 Channelization - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 85.6
04100008 050 Riley Creek

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2005

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Unknown Toxicity
Unionized Ammonia
Flow Alteration

High Magnitude Sources

Major Municipal Point Source
Channelization - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Biological and water quality data collected in 1991 were used in the 2002 Integrated Report which resulted in a Category 5 (impaired) listing for the aquatic life beneficial use. These data have since exceeded the ten-year threshold and are now considered historical. However, while reflecting the current status that no data are available to assess beneficial use status, the assessment unit will remain Category 5 until TMDLs for all beneficial use impairments are completed and approved by the USEPA.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 147.3**
 04100008 060 Blanchard River (downstream Riley Creek to mouth); excluding Blanchard
 R. mainstem

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2005

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment. The last major survey done by the Ohio EPA in this watershed was in 1989.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 170.0**
 04100009 010 Maumee River (downstream Tiffin R. to upstream South Turkeyfoot Cr.);
 excluding Maumee R. mainstem

Integrated Report Assessment Category: 5 **Priority Points: 4**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C Sampling Year(s): 1997, 2001
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	2 Sites						
5-20 mi ²	3 Sites	3 Sites	50.0	50.0	0.0			
20-50 mi ²	2 Sites	0 Sites						
<hr/>						75	25	0
Large (Linear)								
50-500 mi ²	2.0 Miles	2.0 Miles	100.0	0.0	0.0			

High Magnitude Causes

Nutrients
 Flow Alteration
 Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
 Channelization - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Several previously unassessed streams in this watershed were sampled by ODNR Division of Wildlife in 2001. Data were used as a supplement to Ohio EPA data in determining aquatic life use attainment status for the 2004 Integrated Report.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 149.1
04100009 020 South Turkeyfoot Creek

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1997
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	4 Sites	0 Sites	0.0	37.5	62.5			
20-50 mi ²	1 Sites	0 Sites						
Large (Linear)						12	32	56
50-500 mi ²	14.4 Miles	3.5 Miles	24.4	26.8	48.8			

High Magnitude Causes

Siltation
Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
Channelization - Agriculture
Removal of Riparian Vegetation - Ag.
Streambank Destabilization - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 64.7
04100009 040 Bad Creek

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1997
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	1 Sites	0 Sites	0.0	0.0	100.0			
20-50 mi ²	3 Sites	0 Sites						
Large (Linear)						0	39	61
50-500 mi ²	8.1 Miles	0.0 Miles	0.0	78.4	21.6			

High Magnitude Causes

Unionized Ammonia
Siltation
Organic Enrichment/DO
Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Municipal Point Source
Combined Sewer Overflows
Nonirrigated Crop Production
Channelization - Agriculture
Removal of Riparian Vegetation - Ag.
Streambank Destabilization - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 83.7
 04100009 060 Maumee River (downstream Beaver Cr. to downstream N. Granger
 Island); excluding Maumee R. mainstem

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

No recent data have been collected in this watershed.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 95.7
04100009 070 Swan Creek (headwaters to upstream Blue Creek)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

The upper portion of Swan Creek was sampled in 1989 but data are considered historical. Another survey of the watershed is needed to reassess the status.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 108.3**
 04100009 080 Swan Creek (upstream Blue Creek to mouth)

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C,LRW Sampling Year(s): 1993
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	1 Sites						
5-20 mi ²	Sites	Sites	0.0	25.0	75.0			
20-50 mi ²	2 Sites	2 Sites						
<hr/>						29	33	38
Large (Linear)								
50-500 mi ²	8.8 Miles	5.1 Miles	58.0	42.0	0.0			

High Magnitude Causes

Siltation
 Other Habitat Alterations
 Total Toxics

High Magnitude Sources

Urban Runoff/Storm Sewers (NPS)

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

The lower portion of the Swan Creek watershed was sampled in 1993 as part of the Maumee River Area of Concern assessment project.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 76.6
04100009 090 Maumee River (downstream N. Granger Island to mouth); excluding
Maumee R. mainstem

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1993, 1997, 1998
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	4 Sites	0 Sites						
5-20 mi ²	Sites	Sites	25.0	0.0	75.0			
20-50 mi ²	2 Sites	1 Sites						
<hr/>						25	0	75
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Siltation
Other Habitat Alterations

High Magnitude Sources

Channelization - Development
Habitat Modifications o/than Hydromod.
Streambank Destabilization - Dev.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Streams within this watershed were sampled as part of the 1992 and 1993 Maumee River Area of Concern assessment project.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 204.7
04100010 010 Lake Erie tributaries (East of Maumee River to west of Toussaint River)

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C,LRW Sampling Year(s): 1993, 1995, 1997
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	11 Sites	2 Sites						
5-20 mi ²	14 Sites	0 Sites	4.5	0.0	95.5			
20-50 mi ²	8 Sites	0 Sites						
<hr/>						5	0	95
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Unknown Toxicity
Nutrients
Siltation
Flow Alteration
Other Habitat Alterations
Oil and Grease

High Magnitude Sources

Major Industrial Point Source
Nonirrigated Crop Production
Landfills
Channelization - Agriculture
Dredging - Agriculture
Removal of Riparian Vegetation - Ag.
Streambank Destabilization - Ag.
Spills

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Streams within this watershed were sampled as part of the 1992 and 1993 Maumee River Area of Concern assessment project.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 143.1
04100010 020 Toussaint Creek

Integrated Report Assessment Category: 5 **Priority Points: 5**
Next Scheduled Monitoring: 2003

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1993, 1995, 1996, 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)						0	0	100
50-500 mi ²	12.3 Miles	0.0 Miles	0.0	0.0	100.0			

<u>High Magnitude Causes</u>	<u>High Magnitude Sources</u>
Other Habitat Alterations	Nonirrigated Crop Production

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 379
No. Ambient Sites: 19 No. Ambient Sampling Records: 54 75th %ile: 1075
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 24 90th %ile: 2200
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway in the Toussaint Creek watershed. Monitoring in support of TMDL development was conducted in 2003.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 168.6**
 04100010 030 Middle Branch Portage River (headwaters to downstream Rocky Ford
 Creek)

Integrated Report Assessment Category: 5 **Priority Points: 2**
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s): 1993, 1994, 1999
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	0 Sites						
5-20 mi ²	Sites	Sites	25.0	25.0	50.0			
20-50 mi ²	4 Sites	1 Sites						
<hr/>						23	52	25
Large (Linear)								
50-500 mi ²	4.6 Miles	1.0 Miles	21.7	78.3	0.0			

High Magnitude Causes

Siltation
 Organic Enrichment/DO
 Turbidity

High Magnitude Sources

Combined Sewer Overflows
 Highway/Road/Bridge/Sewer Line
 Onsite Wastewater Systems (Septic Tanks)
 Upstream Impoundment
 Bridge Construction

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 77.2
 04100010 050 Portage River (downstream South/Middle Branches to downstream North Branch)

Integrated Report Assessment Category: 5 **Priority Points:** 6
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH, LRW Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 706
 No. Ambient Sites: 0 No. Ambient Sampling Records: 0 75th %ile: 1400
 No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 271 90th %ile: 2600
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (North Branch Portage River)

Comments

No recent biological community and water quality data were available for this assessment unit to determine status of aquatic life uses. As such, this assessment unit was listed as Category 3 (unassessed) in the 2002 Integrated Report. However, the 2004 Integrated Report assessment of fish tissue data documented body burdens of pollutants at levels reflecting a violation(s) of Ohio Water Quality Standards criteria and was thus listed as impaired for fish consumption. Additionally, available bacteria data indicated an impairment of the Primary Contact Recreation use.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 87.1
04100010 060 Portage River (downstream North Branch to downstream Sugar Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 8
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1994
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites	50.0	0.0	50.0			
20-50 mi ²	2 Sites	1 Sites						
						73	2	25
Large (Linear)								
50-500 mi ²	25.6 Miles	24.6 Miles	96.2	3.8	0.0			

High Magnitude Causes

Siltation
Organic Enrichment/DO

High Magnitude Sources

Nonirrigated Crop Production
Channelization - Agriculture
Drainage/Filling of Wetland - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 374
No. Ambient Sites: 1 No. Ambient Sampling Records: 6 75th %ile: 1300
No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 146 90th %ile: 2600
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Portage River)

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 136.4
04100011 010 Muddy Creek; Lake Erie tributaries (Muddy Creek to Marblehead)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment. The only recent data are from 2 reference sites on Muddy Creek.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 137.3**
 04100011 020 Sandusky River (headwaters to upstream Broken Sword Creek)

Integrated Report Assessment Category: 5 **Priority Points: 9**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 2001
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	10 Sites	4 Sites						
5-20 mi ²	7 Sites	2 Sites	17.2	19.1	63.7			
20-50 mi ²	3 Sites	0 Sites						
<hr/>						32	33	35
Large (Linear)								
50-500 mi ²	22.1 Miles	10.4 Miles	47.1	46.6	6.3			

High Magnitude Causes

Siltation
 Nutrients
 Organic Enrichment/DO
 Flow Alteration

High Magnitude Sources

Major Municipal Point Source
 Combined Sewer Overflows
 Nonirrigated Crop Production
 Onsite Wastewater Systems (Septic Tanks)
 Flow Regulation/Modification-Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 1731
 No. Ambient Sites: 19 No. Ambient Sampling Records: 40 75th %ile: 7200
 No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 353 90th %ile: 19700
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Sandusky River)

Comments

A TMDL for the upper Sandusky River watershed (headwaters to north of Tiffin) is in progress. Monitoring in support of the TMDL was conducted in 2001. A report on the findings of the 2001 biological and water quality survey can be found at (www.epa.state.oh.us/dsw/document_index/psdindx.html).

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 94.5
04100011 030 Broken Sword Creek

Integrated Report Assessment Category: 5 **Priority Points: 3**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 2001
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	4 Sites	2 Sites						
5-20 mi ²	3 Sites	1 Sites	54.2	0.0	45.8			
20-50 mi ²	3 Sites	2 Sites						
<hr/>						71	6	23
Large (Linear)								
50-500 mi ²	15.8 Miles	13.8 Miles	87.3	12.7	0.0			

High Magnitude Causes

Siltation
Nutrients
Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
Channelization - Agriculture
Flow Regulation/Modification-Agriculture
Spills

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 369
No. Ambient Sites: 11 No. Ambient Sampling Records: 23 75th %ile: 610
No. of NPDES MOR Sites: 0 No. of NPDES MOR Records: 0 90th %ile: 2000
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A TMDL for the upper Sandusky River watershed (headwaters to north of Tiffin) is in progress. Monitoring in support of the TMDL was conducted in 2001. A report on the findings of the 2001 biological and water quality survey can be found at (www.epa.state.oh.us/dsw/document_index/psdindx.html).

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 121.3**
 04100011 040 Sandusky River (downstream Broken Sword Creek to upstream
 Tymochtee Creek)

Integrated Report Assessment Category: 5 **Priority Points: 4**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C Sampling Year(s): 2001
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	6 Sites	2 Sites						
5-20 mi ²	8 Sites	2 Sites	14.6	7.3	78.1			
20-50 mi ²	1 Sites	0 Sites						
<hr/>						52	9	39
Large (Linear)								
50-500 mi ²	29.0 Miles	26.0 Miles	89.7	10.3	0.0			

High Magnitude Causes

Siltation
 Nutrients
 Organic Enrichment/DO
 Flow Alteration
 Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
 Onsite Wastewater Systems (Septic Tanks)
 Channelization - Agriculture
 Flow Regulation/Modification-Agriculture
 Removal of Riparian Vegetation - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: No Geometric Mean: 217
 No. Ambient Sites: 9 No. Ambient Sampling Records: 23 75th %ile: 550
 No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 57 90th %ile: 1600
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Sandusky River)

Comments

A TMDL for the upper Sandusky River watershed (headwaters to north of Tiffin) is in progress. Monitoring in support of the TMDL was conducted in 2001. A report on the findings of the 2001 biological and water quality survey can be found at (www.epa.state.oh.us/dsw/document_index/psdindx.html).

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 171.6
04100011 050 Tymochtee Creek (headwaters to downstream Warpole Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 5
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C Sampling Year(s): 2001
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	5 Sites	3 Sites						
5-20 mi ²	9 Sites	4 Sites	26.1	0.0	73.9			
20-50 mi ²	2 Sites	0 Sites						
<hr/>						13	20	67
Large (Linear)								
50-500 mi ²	19.3 Miles	0.0 Miles	0.0	40.4	59.6			

High Magnitude Causes

Nutrients
Siltation
Organic Enrichment/DO
Flow Alteration

High Magnitude Sources

Nonirrigated Crop Production
Flow Regulation/Modification-Agriculture
Onsite Wastewater Systems (Septic Tanks)
Spills

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 480
No. Ambient Sites: 19 No. Ambient Sampling Records: 43 75th %ile: 1100
No. of NPDES MOR Sites: 0 No. of NPDES MOR Records: 0 90th %ile: 2000
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A TMDL for the upper Sandusky River watershed (headwaters to north of Tiffin) is in progress. Monitoring in support of the TMDL was conducted in 2001. A report on the findings of the 2001 biological and water quality survey can be found at (www.epa.state.oh.us/dsw/document_index/psdindx.html).

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 130.1
 04100011 060 Tymochtee Creek (downstream Warpole Creek to mouth)

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 2001
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	3 Sites	1 Sites						
5-20 mi ²	5 Sites	1 Sites	0.0	0.0	100.0			
20-50 mi ²	1 Sites	0 Sites						
<hr/>						27	32	41
Large (Linear)								
50-500 mi ²	26.7 Miles	10.9 Miles	40.8	59.2	0.0			

High Magnitude Causes

Flow Alteration
 Siltation
 Nutrients

High Magnitude Sources

Minor Municipal Point Source
 Nonirritated Crop Production
 Flow Regulation/Modification-Agriculture
 Spills

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: No Geometric Mean: 45
 No. Ambient Sites: 14 No. Ambient Sampling Records: 29 75th %ile: 325
 No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 22 90th %ile: 550
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

A TMDL for the upper Sandusky River watershed (headwaters to north of Tiffin) is in progress. Monitoring in support of the TMDL was conducted in 2001. A report on the findings of the 2001 biological and water quality survey can be found at (www.epa.state.oh.us/dsw/document_index/psdindx.html).

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 121.8**
 04100011 070 Sandusky River (downstream Tymochtee Creek to upstream Honey
 Creek); excluding Sandusky R. mainstem

Integrated Report Assessment Category: 5 **Priority Points: 4**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 2001
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	6 Sites	3 Sites						
5-20 mi ²	6 Sites	2 Sites	70.8	12.5	16.7			
20-50 mi ²	1 Sites	1 Sites						
<hr/>						56	36	8
Large (Linear)								
50-500 mi ²	10.0 Miles	4.1 Miles	41.0	59.0	0.0			

High Magnitude Causes
 Siltation
 Nutrients
 Organic Enrichment/DO
 Flow Alteration
 Other Habitat Alterations

High Magnitude Sources
 Nonirrigated Crop Production
 Onsite Wastewater Systems (Septic Tanks)
 Channelization - Agriculture
 Flow Regulation/Modification-Agriculture
 Removal of Riparian Vegetation - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: No Geometric Mean: 121
 No. Ambient Sites: 13 No. Ambient Sampling Records: 28 75th %ile: 455
 No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 23 90th %ile: 1000
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

A TMDL for the upper Sandusky River watershed (headwaters to north of Tiffin) is in progress. Monitoring in support of the TMDL was conducted in 2001. A report on the findings of the 2001 biological and water quality survey can be found at (www.epa.state.oh.us/dsw/document_index/psdindx.html).

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 179.7**
04100011 080 Honey Creek

Integrated Report Assessment Category: 5 **Priority Points: 3**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s): 2001
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	8 Sites	3 Sites						
5-20 mi ²	10 Sites	4 Sites	69.4	10.6	20.0			
20-50 mi ²	1 Sites	1 Sites						
<hr/>						62	17	21
Large (Linear)								
50-500 mi ²	33.2 Miles	18.2 Miles	54.8	23.8	21.4			

High Magnitude Causes

Flow Alteration
Siltation
Nutrients

High Magnitude Sources

Minor Municipal Point Source
Nonirrigated Crop Production
Channelization - Agriculture
Flow Regulation/Modification-Agriculture
Removal of Riparian Vegetation - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 155
No. Ambient Sites: 21 No. Ambient Sampling Records: 34 75th %ile: 635
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 24 90th %ile: 1200
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A TMDL for the upper Sandusky River watershed (headwaters to north of Tiffin) is in progress. Monitoring in support of the TMDL was conducted in 2001. A report on the findings of the 2001 biological and water quality survey can be found at (www.epa.state.oh.us/dsw/document_index/psdindx.html).

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 116.6
 04100011 090 Sandusky River (downstream Honey Creek to upstream Wolf Creek);
 excluding Sandusky R. mainstem

Integrated Report Assessment Category: 5 **Priority Points:** 3
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 2001
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	3 Sites	0 Sites						
5-20 mi ²	4 Sites	0 Sites	50.0	12.5	37.5			
20-50 mi ²	1 Sites	1 Sites						
						50	13	37
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Siltation
 Nutrients
 Organic Enrichment/DO
 Flow Alteration
 Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
 Channelization - Agriculture
 Flow Regulation/Modification-Agriculture
 Removal of Riparian Vegetation - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

A TMDL for the upper Sandusky River watershed (headwaters to north of Tiffin) is in progress. Monitoring in support of the TMDL was conducted in 2001. A report on the findings of the 2001 biological and water quality survey can be found at (www.epa.state.oh.us/dsw/document_index/psdindx.html).

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 157.8**
 04100011 100 Wolf Creek

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 80.9
04100011 110 Green Creek

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

This watershed has very little data of any kind. The only biological data collected were from one Stream Regionalization Project site in 1983. Fish tissue sampling was done at one location in 1998.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 108.4
 04100011 120 Sandusky River (downstream Wolf Creek to mouth); excluding Green
 Creek and Sandusky R. mainstem

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment. Fish tissue sampling was done at one site on Muskegon Creek in 1998.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 163.8
04100011 130 Lake Erie tributaries (East of Green Creek to west of Mills Creek)

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: CWH,WWH Sampling Year(s): 1995
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	0 Sites						
5-20 mi ²	8 Sites	1 Sites	3.1	3.1	93.8			
20-50 mi ²	2 Sites	0 Sites						
<hr/>						3	3	94
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Organic Enrichment/DO
Other Habitat Alterations

High Magnitude Sources

Major Municipal Point Source
Channelization - Agriculture
Channelization - Development

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 104.3
04100011 140 Lake Erie tributaries (West of Mills Creek to East of Sawmill Creek)

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

<u>High Magnitude Causes</u>	<u>High Magnitude Sources</u>
Nutrients Siltation	Nonirrigated Crop Production

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Biological and water quality data collected in 1991 were used in the 2002 Integrated Report which resulted in a Category 5 (impaired) listing for the aquatic life beneficial use. These data have since exceeded the ten-year threshold and are now considered historical. However, while reflecting the current status that no data are available to assess beneficial use status, the assessment unit will remain Category 5 until TMDLs for all beneficial use impairments are completed and approved by the USEPA.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 132.1**
 04100012 010 West Branch Huron River (headwaters to upstream Slate Run)

Integrated Report Assessment Category: 5 **Priority Points: 5**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1998, 2002
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	0 Sites						
5-20 mi ²	10 Sites	3 Sites	7.5	27.5	65.0			
20-50 mi ²	4 Sites	0 Sites						
<hr/>						36	32	32
Large (Linear)								
50-500 mi ²	19.7 Miles	12.6 Miles	64.0	36.0	0.0			

High Magnitude Causes

Nutrients
 Organic Enrichment/DO
 Flow Alteration
 Other Habitat Alterations
 Oil and Grease

High Magnitude Sources

Major Municipal Point Source
 Nonirrigated Crop Production
 Channelization - Agriculture
 Channelization - Development
 Upstream Impoundment
 Waste Storage/Storage Tank Leaks

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 540
 No. Ambient Sites: 9 No. Ambient Sampling Records: 29 75th %ile: 1140
 No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 65 90th %ile: 1784
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway in the Huron River watershed. Monitoring in support of the TMDLs was conducted in 1998 and 2002.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 129.8**
 04100012 020 West Branch Huron River (upstream Slate Run to mouth)

Integrated Report Assessment Category: 5 **Priority Points: 3**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1998, 2002
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	1 Sites						
5-20 mi ²	8 Sites	4 Sites	50.0	50.0	0.0			
20-50 mi ²	2 Sites	1 Sites						
<hr/>						81	16	3
Large (Linear)								
50-500 mi ²	10.5 Miles	10.5 Miles	100.0	0.0	0.0			

High Magnitude Causes

Nutrients
 Other Habitat Alterations
 Natural Limits (Wetlands)

High Magnitude Sources

Nonirrigated Crop Production
 Channelization - Agriculture
 Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: No Geometric Mean: 189
 No. Ambient Sites: 5 No. Ambient Sampling Records: 11 75th %ile: 315
 No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 22 90th %ile: 868
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway in the Huron River watershed. Monitoring in support of the TMDLs was conducted in 1998 and 2002.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 150.6**
 04100012 030 Huron River, East Branch Huron River, Lake Erie tributaries (East of
 Sawmill Cr. to west of Huron R)

Integrated Report Assessment Category: 5 **Priority Points: 7**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1998, 2002
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	0 Sites						
5-20 mi ²	11 Sites	6 Sites	51.1	46.6	2.3			
20-50 mi ²	4 Sites	3 Sites						
						44	23	33
Large (Linear)								
50-500 mi ²	16.1 Miles	5.9 Miles	36.6	0.0	63.4			

High Magnitude Causes

Cause Unknown
 Nutrients
 Siltation
 Other Habitat Alterations

High Magnitude Sources

Major Municipal Point Source
 Nonirrigated Crop Production
 Channelization- Development

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 344
 No. Ambient Sites: 13 No. Ambient Sampling Records: 54 75th %ile: 1300
 No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 99 90th %ile: 3760
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: No Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway in the Huron River watershed. Monitoring in support of the TMDLs was conducted in 1998 and 2002.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 83.2
04100012 040 Lake Erie tributaries (East of Huron River to West of Vermilion River)

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1993, 2000-2002
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	5 Sites	1 Sites						
5-20 mi ²	10 Sites	2 Sites	30.0	0.0	70.0			
20-50 mi ²	5 Sites	2 Sites						
<hr/>						30	0	70
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Nutrients
Siltation
Other Habitat Alterations
Natural Limits (Drought)

High Magnitude Sources

Nonirrigated Crop Production
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 241
No. Ambient Sites: 6 No. Ambient Sampling Records: 15 75th %ile: 780
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 67 90th %ile: 1500
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway in this assessment unit. Monitoring in support of the TMDLs was conducted in 2002. Principal streams sampled included Old Woman Creek, Chappel Creek, and Sugar Creek.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 140.3
04100012 050 Vermilion River (headwaters to upstream East Branch)

Integrated Report Assessment Category: 5 **Priority Points:** 8
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 2002
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	0 Sites						
5-20 mi ²	14 Sites	2 Sites	7.1	67.9	25.0			
20-50 mi ²	3 Sites	0 Sites						
<hr/>						51	36	13
Large (Linear)								
50-500 mi ²	23.8 Miles	22.6 Miles	95.0	5.0	0.0			

High Magnitude Causes

Nutrients
Siltation
Flow Alteration
Other Habitat Alterations
Organic Enrichment/D.O.
Natural Limits (Drought)

High Magnitude Sources

Channelization-Development
Channelization-Agriculture
Onsite Wastewater Systems (Septic Tanks)
Hydromodification-Agriculture
Pasture Land
Nonirrigated Crop Production
Minor Municipal Point Source
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 380
No. Ambient Sites: 6 No. Ambient Sampling Records: 59 75th %ile: 1200
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 7 90th %ile: 1950
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: No Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway. Biological and water quality monitoring in support of the TMDLs was conducted in 2002. Principal streams sampled included the Vermilion River, Southwest Branch Vermilion River, Buck Creek, and Clear Creek.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 127.7**
 04100012 060 Vermilion River (upstream East Branch to mouth)

Integrated Report Assessment Category: 5 **Priority Points: 5**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 2002
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	8 Sites	3 Sites						
5-20 mi ²	10 Sites	3 Sites	50.2	21.7	28.1			
20-50 mi ²	3 Sites	2 Sites						
<hr/>						39	39	22
Large (Linear)								
50-500 mi ²	29.7 Miles	8.1 Miles	27.3	56.9	15.8			

High Magnitude Causes

Flow Alteration
 Siltation
 Organic Enrichment/D.O.
 Nutrients
 Natural Limits (Drought)

High Magnitude Sources

Flow Regulation/Modification-Development
 Channelization-Agriculture
 Nonirrigated Crop Production
 Industrial Point Source
 Minor Municipal Point Source
 Onsite Wastewater Systems (Septic Tanks)
 Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 157
 No. Ambient Sites: 23 No. Ambient Sampling Records: 92 75th %ile: 400
 No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 60 90th %ile: 2200
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: No Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway. Biological and water quality monitoring in support of the TMDLs was conducted in 2002. Principal streams sampled included the Vermilion River, East Fork Vermilion River, and East Branch Vermilion River.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 71.5
04110001 010 Lake Erie tributaries (East of Vermilion River to West of Black River)

Integrated Report Assessment Category: 5 **Priority Points: 4**
Next Scheduled Monitoring: 2006

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 326
No. Ambient Sites: 10 No. Ambient Sampling Records: 27 75th %ile: 820
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 72 90th %ile: 3180
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 174.0
04110001 020 West Branch Black River

Integrated Report Assessment Category: 5 **Priority Points:**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1994, 1997, 2001
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	7 Sites	1 Sites						
5-20 mi ²	15 Sites	0 Sites	28.5	15.3	56.2			
20-50 mi ²	4 Sites	2 Sites						
<hr/>						14	52	34
Large (Linear)								
50-500 mi ²	26.6 Miles	0.0 Miles	0.0	88.7	11.3			

High Magnitude Causes

Cause Unknown
Nutrients
Siltation
Organic Enrichment/DO

High Magnitude Sources

Nonirrigated Crop Production
Pasture Land
Urban Runoff/Storm Sewers (NPS)
Onsite Wastewater Systems (Septic Tanks)
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 587
No. Ambient Sites: 2 No. Ambient Sampling Records: 4 75th %ile: 1316
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 41 90th %ile: 2684
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (West Branch Black River)

Comments

Development of TMDLs for pollutants causing aquatic life use impairments is in progress in the Black River basin. Biological and water quality surveys in support of the TMDLs were conducted in 1997 and 2001.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 95.8
04110001 030 East Branch Black River (headwaters to downstream Coon Creek)

Integrated Report Assessment Category: 5 **Priority Points: 8**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1996, 1997, 2001
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	5 Sites	4 Sites	90.0	10.0	0.0			
20-50 mi ²	3 Sites	3 Sites						
<hr/>						68	32	0
Large (Linear)								
50-500 mi ²	20.7 Miles	9.5 Miles	45.9	54.1	0.0			

High Magnitude Causes

Siltation

High Magnitude Sources

Nonirrigated Crop Production

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 329
No. Ambient Sites: 6 No. Ambient Sampling Records: 9 75th %ile: 683
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 24 90th %ile: 3522
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: No Pollutant (Waterbody):

Comments

Aquatic life impairment in the East Branch watershed was restricted to the reach of the E. Br. in the vicinity of the Grafton WWTP and in an upstream reach affected by localized nonpoint sources based on monitoring conducted in 1997; this led to the assignment of Category 4B (impaired but not requiring a TMDL) in the 2002 Integrated Report. Assessment of the Primary Contact Recreation use for the 2004 Integrated Report resulted in a Category 5 determination. Development of TMDLs for pollutants causing aquatic life use impairments is in progress in the Black River basin. Biological and water quality surveys in support of the TMDLs were conducted in 1997 and 2001.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 125.8
04110001 040 East Branch Black River (downstream Coon Creek to mouth)

Integrated Report Assessment Category: 5 **Priority Points:** 8
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1996, 1997, 2001
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	3 Sites	0 Sites						
5-20 mi ²	2 Sites	0 Sites	0.0	16.7	83.3			
20-50 mi ²	Sites	Sites						
<hr/>						50	8	42
Large (Linear)								
50-500 mi ²	24.4 Miles	24.4 Miles	100.0	0.0	0.0			

High Magnitude Causes

Nutrients
Siltation
Organic Enrichment/DO
Other Habitat Alterations

High Magnitude Sources

Minor Municipal Point Source
Combined Sewer Overflow
Nonirrigated Crop Production
Channelization - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 319
No. Ambient Sites: 5 No. Ambient Sampling Records: 9 75th %ile: 1200
No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 96 90th %ile: 4480
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): mercury, PCBs (East Branch Black River)

Comments

Development of TMDLs for pollutants causing aquatic life use impairments is in progress in the Black River basin. Biological and water quality surveys in support of the TMDLs were conducted in 1997 and 2001. The 2004 Integrated Report assessment of fish tissue data documented body burdens of one or more pollutants at levels exceeding the threshold level upon which Ohio Water Quality Standards human health criteria are based which resulted in listing as impaired for fish consumption.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 190.2
04110001 060 West Branch Rocky River

Integrated Report Assessment Category: 5 **Priority Points:** 7
Next Scheduled Monitoring: 2006

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1997, 2001
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	3 Sites	2 Sites						
5-20 mi ²	5 Sites	1 Sites	100.0	0.0	0.0			
20-50 mi ²	1 Sites	1 Sites						
<hr/>						72	14	14
Large (Linear)								
50-500 mi ²	30.3 Miles	21.8 Miles	71.9	28.1	0.0			

High Magnitude Causes

Unknown Toxicity
Unionized Ammonia
Nutrients
Siltation
Organic Enrichment/DO
Other Habitat Alterations

High Magnitude Sources

Municipal Point Source
Land Development/Suburbanization
Urban Runoff/Storm Sewers (NPS)
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 288
No. Ambient Sites: 7 No. Ambient Sampling Records: 21 75th %ile: 823
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 103 90th %ile: 2340
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: No Pollutant (Waterbody):

Comments

TMDLs for pollutants impairing the aquatic life beneficial use were partially approved for the Rocky River basin by the U.S. EPA on December 4, 2001. The TMDL report is available at <http://www.epa.state.oh.us/dsw/tmdl/index.html>. TMDLs addressing the recreation use impairment are underway. Monitoring in support of the TMDLs was conducted in 1997. Follow-up monitoring was conducted in 2001.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 148.9
04110002 010 Cuyahoga River (headwaters to downstream Black Brook)

Integrated Report Assessment Category: 5 **Priority Points:** 3
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s): 1993, 1996, 2000
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	10 Sites	5 Sites						
5-20 mi ²	8 Sites	3 Sites	38.5	22.3	39.2			
20-50 mi ²	3 Sites	1 Sites						
<hr/>						19	61	20
Large (Linear)								
50-500 mi ²	12.0 Miles	0.0 Miles	0.0	100.0	0.0			

High Magnitude Causes

Siltation
Organic Enrichment/DO
Flow Alteration
Other Habitat Alterations
Natural Limits (Wetlands)

High Magnitude Sources

Pasture Land
Onsite Wastewater Systems (Septic Tanks)
Flow Reg./Mod. - Development
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 303
No. Ambient Sites: 17 No. Ambient Sampling Records: 54 75th %ile: 580
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 114 90th %ile: 1100
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): mercury (Cuyahoga River)

Comments

Development of TMDLs for pollutants impairing the aquatic life and recreation beneficial uses is in progress for the upper Cuyahoga River basin. Monitoring in support of the TMDLs was conducted in 1996 and 2000. Besides the historical aquatic life use and recreation use impairment, the 2004 Integrated Report assessment of fish tissue data documented body burdens of one or more pollutants at levels exceeding the threshold level upon which Ohio Water Quality Standards human health criteria are based which resulted in listing as impaired for fish consumption.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 139.9
 04110002 020 Cuyahoga River (downstream Black Brook to downstream Breakneck Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 4
Next Scheduled Monitoring: 2005

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C,LRW Sampling Year(s): 1996, 2000
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	9 Sites	5 Sites						
5-20 mi ²	1 Sites	1 Sites	77.8	16.7	5.5			
20-50 mi ²	Sites	Sites						
						80	16	4
Large (Linear)								
50-500 mi ²	33.2 Miles	27.5 Miles	82.8	14.4	2.8			

High Magnitude Causes

Unknown Toxicity
 Siltation
 Organic Enrichment/DO
 Flow Alteration
 Other Habitat Alterations
 Natural Limits (Wetlands)

High Magnitude Sources

Major Municipal Point Source
 Minor Municipal Point Source
 Nonirrigated Crop Production
 Channelization - Agriculture
 Channelization - Development
 Flow Reg./Mod. - Development
 Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: No Geometric Mean: 161
 No. Ambient Sites: 15 No. Ambient Sampling Records: 62 75th %ile: 470
 No. of NPDES MOR Sites: 5 No. of NPDES MOR Records: 384 90th %ile: 1145
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): mercury (Cuyahoga River)

Comments

TMDLs for pollutants impairing the aquatic life beneficial use were approved for the middle Cuyahoga River basin by the U.S. EPA on October 11, 2000. Monitoring in support of the TMDL was conducted by the Ohio EPA in 1996 and 2000. The TMDL report is available at <http://www.epa.state.oh.us/dsw/tmdl/index.html>. Besides the historical aquatic life use impairment, the 2004 Integrated Report assessment of fish tissue data documented body burdens of one or more pollutants at levels exceeding the threshold level upon which Ohio Water Quality Standards human health criteria are based which resulted in listing as impaired for fish consumption.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 112.2
 04110002 030 Cuyahoga River (downstream Breakneck Creek to downstream Little Cuyahoga River)

Integrated Report Assessment Category: 5 **Priority Points:** 3
Next Scheduled Monitoring: 2005

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C,LRW Sampling Year(s): 1996, 2000
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	5 Sites	1 Sites						
5-20 mi ²	7 Sites	2 Sites	12.1	0.0	87.9			
20-50 mi ²	6 Sites	0 Sites						
						9	28	63
Large (Linear)								
50-500 mi ²	22.0 Miles	1.3 Miles	5.9	55.5	38.6			

High Magnitude Causes

Unknown Toxicity
 Nutrients
 Siltation
 Organic Enrichment/DO
 Flow Alteration
 Other Habitat Alterations
 Total Toxics

High Magnitude Sources

Major Municipal Point Source
 Combined Sewer Overflows
 Sewer Line Construction
 Urban Runoff/Storm Sewers (NPS)
 Onsite Wastewater Systems (Septic Tanks)
 Channelization - Development
 Dam Construction - Development
 Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: No Geometric Mean: 205
 No. Ambient Sites: 8 No. Ambient Sampling Records: 32 75th %ile: 360
 No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 313 90th %ile: 1687
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Cuyahoga River, Summit Lake)

Comments

TMDLs for pollutants impairing the aquatic life beneficial use were approved for the middle Cuyahoga River basin by the U.S. EPA on October 11, 2000. Monitoring in support of the TMDL was conducted by the Ohio EPA in 1996 and 2000. The TMDL report is available at <http://www.epa.state.oh.us/dsw/tmdl/index.html>. Besides the historical aquatic life use impairment, the 2004 Integrated Report assessment of fish tissue data documented body burdens of one or more pollutants at levels exceeding the threshold level upon which Ohio Water Quality Standards human health criteria are based which resulted in listing as impaired for fish consumption.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²): 153.9**
 04110002 040 Cuyahoga River (downstream Little Cuyahoga River to downstream
 Brandywine Creek)

Integrated Report Assessment Category: 5 **Priority Points: 7**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1996, 2000
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	16 Sites	10 Sites						
5-20 mi ²	6 Sites	3 Sites	78.1	7.3	14.6			
20-50 mi ²	4 Sites	4 Sites						
						39	38	23
Large (Linear)								
50-500 mi ²	18.1 Miles	0.0 Miles	0.0	68.5	31.5			

High Magnitude Causes

Unknown Toxicity
 Nutrients
 Organic Enrichment/DO
 Flow Alteration
 Other Habitat Alterations

High Magnitude Sources

Major Municipal Point Source
 Combined Sewer Overflows
 Land Development/Suburbanization
 Urban Runoff/Storm Sewers (NPS)

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 944
 No. Ambient Sites: 25 No. Ambient Sampling Records: 81 75th %ile: 2100
 No. of NPDES MOR Sites: 4 No. of NPDES MOR Records: 396 90th %ile: 12400
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Cuyahoga River)

Comments

A report developing TMDLs for pollutants impairing beneficial uses (aquatic life and recreation) in the lower Cuyahoga River basin including the Cuyahoga River mainstem reach was approved by U.S. EPA on September 26, 2003. Monitoring in support of the TMDLs was conducted in 1996, 1999, and 2000. The TMDL report is available at <http://www.epa.state.oh.us/dsw/tmdl/index.html>. Besides the historical aquatic life and recreation use impairments, the 2004 Integrated Report assessment of fish tissue data documented body burdens of one or more pollutants at levels exceeding the threshold level upon which Ohio Water Quality Standards human health criteria are based which resulted in listing as impaired for fish consumption.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 138.1**
 04110002 050 Cuyahoga River (downstream Brandywine Cr. to downstream Tinkers Cr.); excluding Cuyahoga R. mainstem

Integrated Report Assessment Category: 5 **Priority Points: 5**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C,LRW Sampling Year(s): 2000
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	12 Sites	5 Sites						
5-20 mi ²	8 Sites	3 Sites	39.6	18.8	41.6			
20-50 mi ²	Sites	Sites						
<hr/>						20	27	53
Large (Linear)								
50-500 mi ²	22.5 Miles	0.0 Miles	0.0	35.6	64.4			

High Magnitude Causes

Cause Unknown
 Nutrients
 Organic Enrichment/DO
 Flow Alteration
 Other Habitat Alterations
 Oil and Grease
 Natural Limits (Wetlands)

High Magnitude Sources

Major Municipal Point Sources
 Land Development/Suburbanization
 Urban Runoff/Storm Sewers (NPS)
 Onsite Wastewater Systems (Septic Tanks)
 Natural
 Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 353
 No. Ambient Sites: 21 No. Ambient Sampling Records: 73 75th %ile: 900
 No. of NPDES MOR Sites: 6 No. of NPDES MOR Records: 768 90th %ile: 2800
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

A report developing TMDLs for pollutants impairing beneficial uses (aquatic life and recreation) in the lower Cuyahoga River basin including the Cuyahoga River mainstem reach was approved by U.S. EPA on September 26, 2003. Monitoring in support of the TMDLs was conducted in 1996, 1999, and 2000. The TMDL report is available at <http://www.epa.state.oh.us/dsw/tmdl/index.html>.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 115.6**
 04110002 060 Cuyahoga River (downstream Tinkers Creek to mouth); excluding
 Cuyahoga R. mainstem

Integrated Report Assessment Category: 4A **Priority Points:**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s): 1996, 2000
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	8 Sites	1 Sites						
5-20 mi ²	5 Sites	0 Sites	3.1	8.1	88.8			
20-50 mi ²	2 Sites	0 Sites						
<hr/>						3	8	89
Large (Linear)								
50-500 mi ²	2 Sites							
	0.0 Miles	0.0 Miles	0.0	0.0	0.0			

High Magnitude Causes

Metals
 Organic Enrichment/DO
 Flow Alteration
 Other Habitat Alterations

High Magnitude Sources

Combined Sewer Overflows
 Urban Runoff/Storm Sewers (NPS)
 Spills

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 816
 No. Ambient Sites: 10 No. Ambient Sampling Records: 24 75th %ile: 1300
 No. of NPDES MOR Sites: 0 No. of NPDES MOR Records: 0 90th %ile: 5460
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

A report developing TMDLs for pollutants impairing beneficial uses (aquatic life and recreation) in the lower Cuyahoga River basin including the Cuyahoga River mainstem reach was approved by U.S. EPA on September 26, 2003. Monitoring in support of the TMDLs was conducted in 1996, 1999, and 2000. The TMDL report is available at <http://www.epa.state.oh.us/dsw/tmdl/index.html>.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 119.0**
 04110003 010 Lake Erie tributaries (East of Cuyahoga River to West of Grand River);
 excluding Chagrin River

Integrated Report Assessment Category: 5 **Priority Points: 5**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s): 2000
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	0 Sites						
5-20 mi ²	5 Sites	0 Sites	0.0	5.0	95.0			
20-50 mi ²	2 Sites	0 Sites						
<hr/>						0	5	95
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Organic Enrichment/DO
 Flow Alteration

High Magnitude Sources

Combined Sewer Overflows
 Urban Runoff/Storm Sewers (NPS)

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 758
 No. Ambient Sites: 8 No. Ambient Sampling Records: 23 75th %ile: 2600
 No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 74 90th %ile: 4560
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Monitoring in support of the development of TMDLs impairing beneficial uses was conducted in the Euclid Creek and Doan Brook watersheds in 2000.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 119.5**
 04110003 020 Chagrin River (headwaters to downstream Aurora Branch)

Integrated Report Assessment Category: 5 **Priority Points: 3**
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: CWH,EWH,WWH Sampling Year(s): 1994, 1995, 1996
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	10 Sites	6 Sites						
5-20 mi ²	9 Sites	4 Sites	66.1	26.1	7.8			
20-50 mi ²	5 Sites	4 Sites						
<hr/>						82	14	4
Large (Linear)								
50-500 mi ²	27.5 Miles	26.9 Miles	97.8	2.2	0.0			

High Magnitude Causes

- Mercury
- Unionized Ammonia
- Chlorine
- Organic Enrichment/DO
- Thermal Modifications
- Flow Alteration
- Other Habitat Alterations
- Noxious Aquatic Plants

 Filling and Draining

High Magnitude Sources

- Major Industrial Point Source
- Package Plants (Small Flows)
- Highway/Road/Bridge/Sewer Line
- Onsite Wastewater Systems (Septic Tanks)
- Drainage/Filling of Wetlands - Dev.
- Natural
- Upstream Impoundment

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: No Geometric Mean: 380
 No. Ambient Sites: 32 No. Ambient Sampling Records: 80 75th %ile: 753
 No. of NPDES MOR Sites: 6 No. of NPDES MOR Records: 360 90th %ile: 1680
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: No Pollutant (Waterbody):

Comments

Chemical, physical, and biological sampling was conducted in the assessment unit in 2003 and 2004 as part of monitoring in the Chagrin River watershed to develop TMDLs for pollutants causing beneficial use impairments. A watershed action plan for this assessment unit has been endorsed by the Ohio EPA and Ohio DNR.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 145.1
04110003 030 Chagrin River (downstream Aurora Branch to mouth)

Integrated Report Assessment Category: 5 **Priority Points:** 7
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: CWH,WWH Sampling Year(s): 1995, 1996
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	5 Sites	4 Sites						
5-20 mi ²	8 Sites	7 Sites	87.5	12.5	0.0			
20-50 mi ²	Sites	Sites						
<hr/>						81	19	0
Large (Linear)								
50-500 mi ²	27.1 Miles	20.2 Miles	74.5	25.5	0.0			

High Magnitude Causes

Cause Unknown
Organic Enrichment/DO
Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Major Municipal Point Source
Land Development/Suburbanization
Urban Runoff/Storm Sewers (NPS)
Onsite Wastewater Systems (Septic Tanks)
Marinas
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 486
No. Ambient Sites: 11 No. Ambient Sampling Records: 67 75th %ile: 990
No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 71 90th %ile: 4230
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: No Pollutant (Waterbody):

Comments

Chemical, physical, and biological sampling was conducted in the assessment unit in 2003 and 2004 as part of monitoring in the Chagrin River watershed to develop TMDLs for pollutants causing beneficial use impairments. A watershed action plan for this assessment unit has been endorsed by the Ohio EPA and Ohio DNR.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 114.9**
 04110003 040 Lake Erie tributaries (East of Grand River to West of Ashtabula River)

Integrated Report Assessment Category: 5 **Priority Points: 3**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1995
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	12 Sites	1 Sites	54.2	12.5	33.3			
20-50 mi ²	1 Sites	1 Sites						
						54	13	33
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Cause Unknown
 Nutrients
 Organic Enrichment/DO
 Flow Alteration
 Other Habitat Alterations

High Magnitude Sources

Minor Municipal Point Source
 Channelization - Development
 Flow Reg./Mod. - Development
 Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 126.8
04110003 050 Ashtabula River

Integrated Report Assessment Category: 5 **Priority Points:** 5
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s): 1995
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites	100.0	0.0	0.0			
20-50 mi ²	1 Sites	1 Sites						
<hr/>						91	7	2
Large (Linear)								
50-500 mi ²	27.5 Miles	22.2 Miles	80.7	14.6	4.7			

High Magnitude Causes

Cause Unknown
Priority Organics
Other Habitat Alterations

High Magnitude Sources

Land Disposal
Hazardous Waste
Contaminated Sediments

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Ashtabula River)

Comments

A project to dredge and dispose of contaminated sediments from the lower Ashtabula River is currently in the design stage. The project is a collaborative effort between the Ohio EPA, the Army Corps of Engineers, and the Ashtabula River Partnership. The current schedule calls for construction to begin in the spring of 2004. Future monitoring within the watershed will be conducted within the normal rotating basin schedule after the cessation of the project and when sufficient recovery time has elapsed.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 156.7
04110004 010 Grand River (headwaters to downstream Swine Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1995, 1999
Impairment: No

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	6 Sites	6 Sites	100.0	0.0	0.0			
20-50 mi ²	Sites	Sites						
<hr/>						100	0	0
Large (Linear)								
50-500 mi ²	10.2 Miles	10.2 Miles	100.0	0.0	0.0			

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs, mercury (Grand River)

Comments

Limited monitoring was conducted in this Grand River assessment unit by the Ohio EPA in 1995 (chemical, physical, and biological) and the Ohio DNR in 1999 (biological). Streams sampled included the Grand River, Baughman Creek, Swine Creek, and Andrews Creek. Full attainment of designated aquatic life uses was documented at all sampling locations. However, the assessment unit has been assigned Category 5 (impaired) due to the Sportfish Consumption Advisories in effect for the Grand River.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 131.9
04110004 020 Grand River (downstream Swine Creek to upstream Rock Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 5
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1995, 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	1 Sites						
5-20 mi ²	3 Sites	3 Sites	100.0	0.0	0.0			
20-50 mi ²	1 Sites	1 Sites						
						69	31	0
Large (Linear)								
50-500 mi ²	25.0 Miles	9.7 Miles	38.8	61.2	0.0			

High Magnitude Causes

Natural Limits (Wetlands)

High Magnitude Sources

Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs, mercury (Grand River)

Comments

Limited monitoring was conducted in this Grand River assessment unit by the Ohio EPA in 1995 (chemical, physical, and biological) and the Ohio DNR in 1999 (biological). Streams sampled included the Grand River, Phelps Creek, Hoskins Creek, Mill Creek, Crooked Creek, and Indian Creek. Full attainment of designated aquatic life uses was documented at all tributary sampling locations. Partial attainment in the Grand River for over 15 miles was due exclusively to the habitat-limiting nature of the extensive wetland stream complex (natural conditions). However, the assessment unit has been assigned Category 5 (impaired) due to the Sportfish Consumption Advisories in effect for the Grand River.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 70.7
04110004 030 Rock Creek

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): mercury (New Lyme Lake)

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete aquatic life use assessment. However, fish tissue contamination issues in New Lyme Lake resulted in the listing of the assessment unit as Category 5 (impaired).

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 57.7
04110004 040 Grand River (downstream Rock Creek to upstream Mill Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs, mercury (Grand River)

Comments

A small amount of biosurvey data has been collected in this watershed, but there were not enough sampling locations to do a complete aquatic life use assessment. However, the 2004 Integrated Report assessment of fish tissue data documented body burdens of pollutants at levels reflecting a violation(s) of Ohio Water Quality Standards criteria and was thus listed as impaired for fish consumption.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 103.3**
04110004 050 Mill Creek

Integrated Report Assessment Category: 5 **Priority Points: 3**
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1995, 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	0 Sites						
5-20 mi ²	Sites	Sites	50.0	0.0	50.0			
20-50 mi ²	1 Sites	1 Sites						
<hr/>						63	12	25
Large (Linear)								
50-500 mi ²	11.3 Miles	8.6 Miles	76.1	23.9	0.0			

High Magnitude Causes

Organic Enrichment/D.O.
Unknown

High Magnitude Sources

Onsite Wastewater Systems (Septic Tanks)
Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 201
No. Ambient Sites: 9 No. Ambient Sampling Records: 24 75th %ile: 455
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 36 90th %ile: 1508
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Chemical, physical, and biological sampling was conducted in the assessment unit in 2003 and 2004 as part of monitoring in the Grand River watershed to development TMDLs for pollutants causing beneficial use impairments.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 1.5
04120101 060 Lake Erie tributaries (East of Conneaut Creek)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: CWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

This is a very tiny watershed within Ohio. Most of it extends into Pennsylvania. The only stream in Ohio within this reach is Turkey Creek, with chemical data from 1981. Recent Lake Erie shoreline data are available.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 9.0
04120200 010 Lake Erie Islands

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

No data of any kind have ever been collected by the Ohio EPA on the Lake Erie Islands. Only shoreline data on Lake Erie have been collected.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 149.1
05030101 070 Middle Fork Little Beaver Creek

Integrated Report Assessment Category: 5 **Priority Points:** 4
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	7 Sites	3 Sites						
5-20 mi ²	13 Sites	8 Sites	36.1	23.8	40.1			
20-50 mi ²	5 Sites	1 Sites						
						46	34	20
Large (Linear)								
50-500 mi ²	21.5 Miles	12.2 Miles	56.7	43.3	0.0			

High Magnitude Causes

Cause Unknown Oil and Grease
Pesticides Natural Limits (Wetlands)
Unionized Ammonia
Nutrients
Siltation
Organic Enrichment/DO
Salinity/TDS/Chlorides
Other Habitat Alterations

High Magnitude Sources

Source Unknown Nonirrigated Crop Production
Contaminated Sediments Surface Mining
Major Municipal Point Source Channelization - Ag.
Removal of Riparian Veg. - Ag. Channelization - Devel.
Confined Animal Feeding Operations (NPS) Spills
Pasture Land
Onsite Wastewater Systems (Septic Tanks)
Urban Runoff/Storm Sewers (NPS)

Recreation Use Assessment

Subcategory of Use: Primary Contact

Impairment: Yes

No. Ambient Sites: 30

No. Ambient Sampling Records: 65

Geometric Mean: 256

75th %ile: 660

No. of NPDES MOR Sites: 2

No. of NPDES MOR Records: 185

90th %ile: 2000

Other: A "Dermal Contact Advisory" is in effect for Middle Fork Little Beaver Creek due to Mirex contamination. The area under the advisory is from Alternate St. Rt. 14 at Allen Rd. near Salem to St. Rt. 11 south of Lisbon.

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes

FCA Issued: Yes

(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")

Impairment Due to FCA: Yes

Pollutant (Waterbody): PCBs (Middle Fork Little Beaver Creek)

Comments

Development of TMDLs for pollutants impairing the aquatic life beneficial use in the Little Beaver Creek basin is in progress. Intensive monitoring in support of the TMDLs was conducted in the watershed in 1999.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 111.2
05030101 080 West Fork Little Beaver Creek

Integrated Report Assessment Category: 5 **Priority Points:** 4
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	4 Sites	3 Sites						
5-20 mi ²	5 Sites	2 Sites	53.8	25.0	21.2			
20-50 mi ²	3 Sites	1 Sites						
<hr/>						50	39	11
Large (Linear)								
50-500 mi ²	15.6 Miles	7.2 Miles	46.0	54.0	0.0			

High Magnitude Causes

Cause Unknown
Siltation
Flow Alteration
Natural Limits (Wetlands)

High Magnitude Sources

Pasture Land
Channelization - Agriculture
Channelization - Development
Upstream Impoundment
Removal of Riparian Vegetation - Ag.
Natural
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 231
No. Ambient Sites: 13 No. Ambient Sampling Records: 23 75th %ile: 365
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 16 90th %ile: 1600
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing the aquatic life beneficial use in the Little Beaver Creek basin is in progress. Intensive monitoring in support of the TMDLs was conducted in the watershed in 1999.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 140.1
05030101 090 Little Beaver Creek (downstream Middle and West Forks to mouth)

Integrated Report Assessment Category: 5 **Priority Points:** 4
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH,LRW Sampling Year(s): 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	9 Sites	5 Sites						
5-20 mi ²	14 Sites	9 Sites	79.9	5.4	14.7			
20-50 mi ²	1 Sites	1 Sites						
<hr/>						90	3	7
Large (Linear)								
50-500 mi ²	24.7 Miles	24.7 Miles	100.0	0.0	0.0			

High Magnitude Causes

Unionized Ammonia
Nutrients
Siltation
Organic Enrichment/DO
Flow Alteration
Other Habitat Alterations
Pathogens
Natural Limits (Wetlands)

High Magnitude Sources

Major Industrial Point Source
Combined Sewer Overflows
Pasture Land
Surface Mining
Subsurface Mining
Channelization - Development
Removal of Riparian Vegetation - Development
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 252
No. Ambient Sites: 29 No. Ambient Sampling Records: 94 75th %ile: 500
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 75 90th %ile: 1000
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Little Beaver Creek)

Comments

Development of TMDLs for pollutants impairing the aquatic life beneficial use in the Little Beaver Creek basin is in progress. Intensive monitoring in support of the TMDLs was conducted in the watershed in 1999.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 45.2
05030101 100 Ohio River tributaries (downstream Little Beaver Creek to upstream
 Yellow Creek)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2005

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment. The only data are from Little Yellow Creek, sampled between 1997-1999.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 118.7**
 05030101 180 Yellow Creek (headwaters to upstream Town Fork)

Integrated Report Assessment Category: 5 **Priority Points: 2**
Next Scheduled Monitoring: 2005

Aquatic Life Use Assessment

Subcategories of ALU: CWH,EWH,WWH,LRW Sampling Year(s): 1996, 1997, 1999
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	2 Sites						
5-20 mi ²	5 Sites	4 Sites	70.0	0.0	30.0			
20-50 mi ²	2 Sites	1 Sites						
						85	0	15
Large (Linear)								
50-500 mi ²	2.0 Miles	2.0 Miles	100.0	0.0	0.0			

High Magnitude Causes

Nutrients

High Magnitude Sources

Onsite Wastewater Systems (Septic Tanks)

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 120.4
05030101 190 Yellow Creek (upstream Town Fork to mouth)

Integrated Report Assessment Category: 5 **Priority Points:** 3
Next Scheduled Monitoring: 2005

Aquatic Life Use Assessment

Subcategories of ALU: CWH,WWH,LRW Sampling Year(s): 1997, 1999, 2002
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	3 Sites	0 Sites						
5-20 mi ²	4 Sites	2 Sites	62.5	0.0	37.5			
20-50 mi ²	1 Sites	1 Sites						
						79	2	19
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Nutrients
Noxious Aquatic Plants
Flow Alterations
pH
Metals

High Magnitude Sources

Land Disposal
Industrial Land Treatment
Natural
Surface Mining
Subsurface Mining

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 140
No. Ambient Sites: 3 No. Ambient Sampling Records: 8 75th %ile: 225
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 11 90th %ile: 350
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:

FCA Issued:

(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")

Impairment Due to FCA: Pollutant (Waterbody):

Comments

Monitoring in the Yellow Creek basin was primarily conducted in 2002. Sites were located in the North Fork Yellow Creek watershed and in Yellow Creek bracketing the North Fork. Sampling was completed in collaboration with the Ohio Department of Natural Resources/Division of Mineral Resources Management and the Army Corps of Engineers/Pittsburgh District as part of an Acid Mine Drainage Abatement Program (AMDAP) project to mitigate seeps in the North Fork watershed near the town of Hammondsville. Earlier monitoring in 1997 and 1999, conducted in North Fork tributaries including Hollow Rock Run, Brush Creek, and Nancy Run, was also used in the watershed assessment. A report on the 2002 survey is available at www.epa.state.oh.us/dsw/document_index/psdindx.html (EAS/20030305).

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 70.6
05030101 210 Ohio River tributaries (downstream Yellow Creek to upstream Cross
Creek)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2005

Aquatic Life Use Assessment

Subcategories of ALU: CWH,WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment. Only one biological reference site (Wills Creek) has been sampled in this watershed since 1987.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 127.5
05030101 340 Cross Creek

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2005

Aquatic Life Use Assessment

Subcategories of ALU: CWH,WWH,LRW Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 263
No. Ambient Sites: 0 No. Ambient Sampling Records: 0 75th %ile: 600
No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 73 90th %ile: 932
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Cross Creek)

Comments

A small amount of biological and water quality data has been collected in this watershed, but there were not enough sampling locations to do a complete aquatic life use assessment. The only recent biological sampling has been at reference sites. Fish tissue data were collected in 2000 and were the determining factor in the Category 5 listing.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 40.7
05030102 010 Tributaries to Pymatuning Reservoir (within Ohio)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

None of the streams in Ohio which drain into Pymatuning Reservoir have ever been sampled by the Ohio EPA.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 149.5
05030102 030 Pymatuning Creek

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1994
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	2 Sites	1 Sites	25.0	25.0	50.0			
20-50 mi ²	1 Sites	0 Sites						
<hr/>						12	13	75
Large (Linear)								
50-500 mi ²	18.0 Miles	0.0 Miles	0.0	0.0	100.0			

High Magnitude Causes

Organic Enrichment/DO
Flow Alterations
Other Habitat Alterations
Pathogens

High Magnitude Sources

Urban Runoff/Storm Sewers (NPS)
Channelization - Agriculture
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

The natural wetland characteristics of the Pymatuning Creek contribute significantly to the nonattainment status throughout the watershed.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 94.6
05030102 050 Yankee Creek; Little Yankee Creek

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1994
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	2 Sites	1 Sites	30.6	11.1	58.3			
20-50 mi ²	9 Sites	1 Sites						
<hr/>						31	11	58
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Nutrients
Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Major Municipal Point Source
Urban Runoff/Storm Sewers (NPS)
Hydromodification - Development
Habitat Modifications o/than Hydromod.
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 129.2**
05030103 010 Mahoning River (headwaters to downstream Beech Creek)

Integrated Report Assessment Category: 5 **Priority Points: 7**
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1994
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	1 Sites	1 Sites	100.0	0.0	0.0			
20-50 mi ²	Sites	Sites						
<hr/>						61	0	39
Large (Linear)								
50-500 mi ²	11.6 Miles	2.6 Miles	22.4	0.0	77.6			

High Magnitude Causes

Cause Unknown
Metals

High Magnitude Sources

Minor Industrial Point Source
Minor Municipal Point Source
Spills
Contaminated Sediments
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 808
No. Ambient Sites: 0 No. Ambient Sampling Records: 0 75th %ile: 2668
No. of NPDES MOR Sites: 4 No. of NPDES MOR Records: 204 90th %ile: 5538
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A TMDL for bacteria will be prepared by the USEPA for the Mahoning River mainstem (Duck Creek to the Shenango River) in 2004.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 118.7**
 05030103 020 Mahoning River (downstream Beech Creek to downstream Berlin Dam)

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Berlin Lake)

Comments

Most of this segment consists of Berlin Lake. No tributaries to the lake have available biological data. A TMDL for bacteria will be prepared by the USEPA for the Mahoning River mainstem (Duck Creek to the Shenango River) in 2004.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 167.1
05030103 030 Mahoning River (downstream Berlin Dam to downstream West Branch)

Integrated Report Assessment Category: 5 **Priority Points: 3**
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1994
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)						0	49	51
50-500 mi ²	10.2 Miles	0.0 Miles	0.0	49.0	51.0			

High Magnitude Causes
Organic Enrichment/DO
Flow Alteration
Other Habitat Alterations
Suspended Solids
Turbidity

High Magnitude Sources
Channelization - Development
Dam Construction - Development
Flow Reg./Mod. - Development

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Mahoning River)

Comments

A TMDL for bacteria will be prepared by the USEPA for the Mahoning River mainstem (Duck Creek to the Shenango River) in 2004.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 126.9
05030103 040 Mahoning River (downstream West Branch to upstream Duck Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 5
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: CWH,WWH Sampling Year(s): 1994, 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	4 Sites	3 Sites	75.0	25.0	0.0			
20-50 mi ²	Sites	Sites						
						56	13	31
Large (Linear)								
50-500 mi ²	19.5 Miles	7.3 Miles	37.4	0.0	62.6			

High Magnitude Causes

Organic Enrichment/DO
Other Habitat Alterations
Natural Limits (Wetlands)

High Magnitude Sources

Channelization - Development
Dam Construction - Development
Flow Reg./Mod. - Development
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 293
No. Ambient Sites: 0 No. Ambient Sampling Records: 0 75th %ile: 543
No. of NPDES MOR Sites: 5 No. of NPDES MOR Records: 164 90th %ile: 1144
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Mahoning River)

Comments

Only biological reference sites within this assessment unit have been sampled since 1987. A TMDL for bacteria will be prepared by the USEPA for the Mahoning River mainstem (Duck Creek to the Shenango River) in 2004.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 138.1
05030103 060 Mosquito Creek

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

Suspended Solids

High Magnitude Sources

Minor Industrial Point Source
Major Municipal Point Source
Upstream Impoundment

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Biological and water quality data collected in 1991 were used in the 2002 Integrated Report which resulted in a Category 5 (impaired) listing for the aquatic life beneficial use. These data have since exceeded the ten-year threshold and are now considered historical. However, while reflecting the current status that no data are available to assess beneficial use status, the assessment unit will remain Category 5 until TMDLs for all beneficial use impairments are completed and approved by the USEPA.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 130.5
 05030103 070 Mahoning River (downstream Mosquito Creek to upstream Mill Creek);
 excluding Mahoning R.

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1994
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)						0	0	100
50-500 mi ²	3.0 Miles	0.0 Miles	0.0	0.0	100.0			

High Magnitude Causes

Metals
 Unionized Ammonia
 Nutrients
 Organic Enrichment/DO
 Other Habitat Alterations
 Suspended Solids

High Magnitude Sources

Major Municipal Point Source
 Dam Construction - Development

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

A TMDL for bacteria will be prepared by the USEPA for the Mahoning River mainstem (Duck Creek to the Shenango River) in 2004.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 180.5**
 05030106 010 Ohio River tributaries (downstream Cross Creek to downstream Short
 Creek)

Integrated Report Assessment Category: 5 **Priority Points: 4**
Next Scheduled Monitoring: 2005

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW,LWH Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 261
 No. Ambient Sites: 1 No. Ambient Sampling Records: 7 75th %ile: 639
 No. of NPDES MOR Sites: 4 No. of NPDES MOR Records: 111 90th %ile: 2590
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data was available for this watershed, but there were not enough sampling locations to do a complete aquatic life use assessment. The vast majority of the biosurvey data in this watershed was collected from 1983-1988. Recent bacteria data resulted in impairment of the Primary Contact Recreation use and the Category 5 listing. Another survey of this watershed is needed to reassess the status.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 130.2
 05030106 040 Ohio River tributaries (downstream Short Creek to downstream Wheeling
 Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 6
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH,WWH-L,MWH-C Sampling Year(s): 2002
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	3 Sites	1 Sites						
5-20 mi ²	Sites	Sites	33.4	33.3	33.3			
20-50 mi ²	Sites	Sites						
<hr/>						17	66	17
Large (Linear)								
50-500 mi ²	1.1 Miles	0.0 Miles	0.0	100.0	0.0			

High Magnitude Causes

Siltation
Iron

High Magnitude Sources

Subsurface Mining

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 105
 No. Ambient Sites: 8 No. Ambient Sampling Records: 71 75th %ile: 700
 No. of NPDES MOR Sites: 5 No. of NPDES MOR Records: 273 90th %ile: 3000
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Limited monitoring in the Wheeling Creek watershed was conducted in 2002. Sites were located in the Fall Run subwatershed and in Wheeling Creek bracketing Fall Run. Sampling was completed in collaboration with the Ohio Department of Natural Resources/Division of Mineral Resources Management and the Army Corps of Engineers/Pittsburgh District as part of an Acid Mine Drainage Abatement Program (AMDAP) project to mitigate acid seeps in the Fall Run subwatershed. A larger AMDAP project covering the entire Wheeling Creek basin (nearly all of which has been affected by subsurface mining) is being considered. A report on the 2002 survey is available at www.epa.state.oh.us/dsw/document_index/psdindx.html (EAS/2002-12-9).

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²): 229.8**
 05030106 110 Ohio River tributaries (downstream McMahon Creek to downstream Fish
 Creek [WV])

Integrated Report Assessment Category: 5 **Priority Points: 4**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH,LRW Sampling Year(s): 1996, 1998, 2000
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	1 Sites						
5-20 mi ²	2 Sites	1 Sites	58.3	29.2	12.5			
20-50 mi ²	3 Sites	2 Sites						
						77	17	6
Large (Linear)								
50-500 mi ²	24.0 Miles	23.0 Miles	95.8	4.2	0.0			

High Magnitude Causes

Flow Alteration
 Cause Unknown

High Magnitude Sources

Natural
 Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: No Geometric Mean: 103
 No. Ambient Sites: 8 No. Ambient Sampling Records: 32 75th %ile: 510
 No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 243 90th %ile: 800
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

There are numerous biological reference sites on Captina Creek and several tributaries within the watershed. The mainstem coverage is adequate to assess water quality, but many tributaries have never been sampled. The smaller Ohio River tributaries have not been sampled since 1983.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 123.8**
 05030201 010 Ohio River tributaries (downstream Fish Creek [WV] to downstream Sunfish Creek)

Integrated Report Assessment Category: 5 **Priority Points: 6**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1996, 2000
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	1 Sites						
5-20 mi ²	1 Sites	0 Sites	62.5	0.0	37.5			
20-50 mi ²	2 Sites	2 Sites						
<hr/>						81	0	19
Large (Linear)								
50-500 mi ²	11.4 Miles	11.4 Miles	100.0	0.0	0.0			

High Magnitude Causes
 Unknown Cause

High Magnitude Sources
 Unknown Source

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 231
 No. Ambient Sites: 6 No. Ambient Sampling Records: 24 75th %ile: 700
 No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 33 90th %ile: 3840
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 136.5
 05030201 020 Ohio River tributaries (downstream Sunfish Creek to upstream
 Muskingum River)

Integrated Report Assessment Category: 2 **Priority Points:**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: No Geometric Mean: 84
 No. Ambient Sites: 5 No. Ambient Sampling Records: 7 75th %ile: 365
 No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 24 90th %ile: 750
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete aquatic life assessment. One biological reference site was sampled on Leith Run in 2000.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 148.9**
 05030201 090 Little Muskingum River (headwaters to upstream Clear Fork)

Integrated Report Assessment Category: 5 **Priority Points: 3**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 2000
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	7 Sites	7 Sites						
5-20 mi ²	10 Sites	10 Sites	100.0	0.0	0.0			
20-50 mi ²	3 Sites	3 Sites						
<hr/>						94	4	2
Large (Linear)								
50-500 mi ²	23.8 Miles	20.8 Miles	87.4	8.4	4.2			

<u>High Magnitude Causes</u>	<u>High Magnitude Sources</u>
Siltation	Nonirrigated Crop Production Pasture Land

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

An intensive biological and water quality survey was conducted in the Little Muskingum River watershed in 2000.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 165.7
05030201 100 Little Muskingum River (upstream Clear Fork to mouth)

Integrated Report Assessment Category: 5 **Priority Points: 4**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1996, 2000
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	12 Sites	12 Sites						
5-20 mi ²	14 Sites	14 Sites	100.0	0.0	0.0			
20-50 mi ²	2 Sites	2 Sites						
<hr/>						77	21	2
Large (Linear)								
50-500 mi ²	34.5 Miles	18.7 Miles	54.3	42.8	2.9			

High Magnitude Causes

Nutrients
Siltation
Flow Alteration

High Magnitude Sources

Nonirrigated Crop Production
Pasture Land
Onsite Wastewater Systems (Septic Tanks)

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: No Pollutant (Waterbody):

Comments

An intensive biological and water quality survey was conducted in the Little Muskingum River watershed in 2000.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 136.2
05030201 110 East Fork Duck Creek

Integrated Report Assessment Category: 4A **Priority Points:**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LWH Sampling Year(s): 1998, 2000
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	39 Sites	27 Sites						
5-20 mi ²	7 Sites	4 Sites	56.6	24.1	19.3			
20-50 mi ²	4 Sites	2 Sites						
<hr/>						72	18	10
Large (Linear)								
50-500 mi ²	14.5 Miles	12.8 Miles	88.0	12.0	0.0			

High Magnitude Causes

Cause Unknown
Metals
Siltation
Organic Enrichment/DO
Flow Alteration
Other Habitat Alterations
Suspended Solids
Total Toxics

High Magnitude Sources

Pasture Land
Highway/Road/Bridge/Sewer Line
Urban Runoff/Storm Sewers (NPS)
Surface Mining
Acid Mine Drainage
Onsite Wastewater Systems (Septic Tanks)
Bridge Construction
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 127
No. Ambient Sites: 21 No. Ambient Sampling Records: 124 75th %ile: 393
No. of NPDES MOR Sites: 0 No. of NPDES MOR Records: 0 90th %ile: 990
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

TMDLs for pollutants impairing the aquatic life beneficial use in the Duck Creek watershed were approved by the U.S. EPA on September 23, 2003. Monitoring in support of the TMDL was conducted in 2000. The TMDL report is available at <http://www.epa.state.oh.us/dsw/tmdl/index.html>.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 149.6
05030201 120 Duck Creek; West Fork Duck Creek

Integrated Report Assessment Category: 5 **Priority Points:** 3
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW LWH Sampling Year(s): 1997, 1998, 2000
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	36 Sites	28 Sites						
5-20 mi ²	3 Sites	2 Sites	86.1	9.8	4.1			
20-50 mi ²	2 Sites	2 Sites						
<hr/>						90	6	4
Large (Linear)								
50-500 mi ²	50.4 Miles	46.9 Miles	93.0	3.0	4.0			

High Magnitude Causes

Unknown Toxicity
Siltation
Organic Enrichment/DO
Flow Alteration

High Magnitude Sources

Urban Runoff/Storm Sewers (NPS)
Surface Mining
Onsite Wastewater Systems (Septic Tanks)
Upstream Impoundment
Flow Reg./Mod. - Development
Spills

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 202
No. Ambient Sites: 25 No. Ambient Sampling Records: 162 75th %ile: 410
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 37 90th %ile: 1062
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs, DDT/DDE/DDD (Duck Creek)

Comments

TMDLs for pollutants impairing the aquatic life beneficial use in the Duck Creek watershed were approved by the U.S. EPA on September 23, 2003. Monitoring in support of the TMDL was conducted in 2000. The TMDL report is available at <http://www.epa.state.oh.us/dsw/tmdl/index.html>. Besides the historical aquatic life use impairment, the 2004 Integrated Report assessment of fish tissue data documented body burdens of one or more pollutants at levels exceeding the threshold level upon which Ohio Water Quality Standards human health criteria are based which resulted in listing as impaired for fish consumption.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 141.3
 05030202 010 Ohio River tributaries (downstream Muskingum R. to upstream Hocking River); Little Hocking River

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 27.9
05030202 020 Ohio River tributaries (downstream Hocking River to upstream Shade River)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

No data have ever been collected on streams in this watershed.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 128.9
05030202 030 Middle Branch and West Branch Shade River

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment. Another survey of the watershed is needed to reassess the status.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 92.1
05030202 040 Shade River (Middle Branch and West Branch to mouth)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 81.7
05030202 050 Ohio River tributaries (downstream Shade River to upstream Leading
Creek)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 150.1
05030202 090 Leading Creek

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1993-1996,
Impairment: Yes 1998-2002

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	6 Sites	4 Sites						
5-20 mi ²	Sites	Sites	33.3	0.0	66.7			
20-50 mi ²	3 Sites	0 Sites						
<hr/>						17	29	54
Large (Linear)								
50-500 mi ²	13.0 Miles	0.0 Miles	0.0	58.5	41.5			

High Magnitude Causes

Cause Unknown
pH
Siltation
Salinity/TDS/Chlorides
Other Habitat Alterations

High Magnitude Sources

Minor Industrial Point Source
Nonirrigated Crop Production
Pasture Land
Surface Mining
Subsurface Mining
Channelization - Development
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Extensive sampling has been done since 1993 to monitor the recovery of Leading Creek and Parker Run following a major release of acidic mine water. Other principal streams sampled included Malloons Run, Little Leading Creek, Thomas Fork, and Little Parker Run.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 88.8
 05030202 100 Ohio River tributaries (downstream Leading Creek to upstream Kanawha River [WV])

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s): 1982, 1990, 1993
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	5 Sites	0 Sites						
5-20 mi ²	2 Sites	0 Sites	0.0	16.7	83.3			
20-50 mi ²	3 Sites	0 Sites						
						0	17	83
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Metals
 pH
 Siltation
 Flow Alteration
 Direct Habitat Alterations

High Magnitude Sources

Industrial Point Sources
 Nonirrigated Crop Production
 Surface Mining
 Subsurface Mining
 Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Kyger Creek and Bell Lick Run were included on the 1998 303(d) list based on data from 1990 and 1982, respectively. Since these data are no longer current (i.e., more than 10 years old), reassessment of current conditions is warranted. However, recognizing the continued pervasive impacts related to ongoing mining activities, this assessment unit remains listed as Category 5 (impaired).

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 132.0
 05030204 010 Hocking River (headwaters to Enterprise); excluding Rush Creek and
 Clear Creek

Integrated Report Assessment Category: 5 **Priority Points: 5**
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C Sampling Year(s): 1995
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	2 Sites						
5-20 mi ²	5 Sites	3 Sites	90.0	5.0	5.0			
20-50 mi ²	4 Sites	4 Sites						
<hr/>						73	24	3
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Siltation
 Organic Enrichment/DO

High Magnitude Sources

Major Municipal Point Source
 Combined Sewer Overflows
 Channelization - Development
 Groundwater Loadings

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Hocking River)

Comments

Chemical, physical, and biological sampling will be conducted in the assessment unit in 2004 as part of monitoring in the Hocking River watershed to develop TMDLs for pollutants causing beneficial use impairments.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 98.9
05030204 020 Rush Creek (headwaters to upstream Little Rush Creek)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH,LRW Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Chemical, physical, and biological sampling will be conducted in the assessment unit in 2004 as part of monitoring in the Hocking River watershed to develop TMDLs for pollutants causing beneficial use impairments. Additional sampling was conducted in this assessment unit by the U. S. Geological Survey in 2003.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 136.0
05030204 030 Rush Creek (upstream Little Rush Creek to mouth)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C,LRW Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Chemical, physical, and biological sampling will be conducted in the assessment unit in 2004 as part of monitoring in the Hocking River watershed to develop TMDLs for pollutants causing beneficial use impairments.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 91.8
05030204 040 Clear Creek

Integrated Report Assessment Category: 5 **Priority Points:** 2
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1995
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	5 Sites	3 Sites						
5-20 mi ²	5 Sites	5 Sites	90.0	5.0	5.0			
20-50 mi ²	2 Sites	2 Sites						
						95	3	2
Large (Linear)								
50-500 mi ²	7.3 Miles	7.3 Miles	100.0	0.0	0.0			

High Magnitude Causes

Nutrients
Organic Enrichment/DO
Flow Alteration

High Magnitude Sources

Minor Municipal Point Source
Nonirrigated Crop Production
Hydromodification - Agriculture
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Chemical, physical, and biological sampling will be conducted in the assessment unit in 2004 as part of monitoring in the Hocking River watershed to develop TMDLs for pollutants causing beneficial use impairments.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 126.3
 05030204 050 Hocking River (Enterprise to upstream Monday Creek); excluding Hocking
 R. mainstem dst. Duck Creek

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Metals
 pH
 Salinity/TDS/Chlorides
 Flow Alteration

High Magnitude Sources

Acid Mine Drainage
 Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Hocking River)

Comments

Biological and water quality data collected in 1991 were used in the 2002 Integrated Report which resulted in a Category 5 (impaired) listing for the aquatic life beneficial use. These data have since exceeded the ten-year threshold and are now considered historical. However, while reflecting the current status that no data are available to assess the aquatic life use status, the assessment unit will remain Category 5 until TMDLs for all beneficial use impairments are completed and approved by the USEPA. Additionally, the 2004 Integrated Report assessment of fish tissue data documented body burdens of pollutants at levels reflecting a violation(s) of Ohio Water Quality Standards criteria which resulted in listing as impaired for fish consumption. Chemical, physical, and biological sampling will be conducted in the assessment unit in 2004 as part of monitoring in the Hocking River watershed to develop TMDLs for pollutants causing beneficial use impairments.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 116.0
05030204 060 Monday Creek

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s): 2001
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	39 Sites	6 Sites						
5-20 mi ²	9 Sites	1 Sites	6.6	12.2	81.2			
20-50 mi ²	9 Sites	0 Sites						
<hr/>						3	6	91
Large (Linear)								
50-500 mi ²	14.3 Miles	0.0 Miles	0.0	0.0	100.0			

High Magnitude Causes

Metals
pH
Siltation
Flow Alteration

High Magnitude Sources

Surface Mining
Acid Mine Drainage

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 97
No. Ambient Sites: 60 No. Ambient Sampling Records: 75 75th %ile: 300
No. of NPDES MOR Sites: 0 No. of NPDES MOR Records: 0 90th %ile: 562
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

TMDLs for pollutants impairing beneficial uses is in progress for the Monday Creek watershed. This is a collaborative project with the Ohio DNR Division of Mineral Resource Management. Monitoring in support of the TMDL/AMDAP projects was conducted by the Ohio EPA in 2001.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 138.7
05030204 070 Sunday Creek

Integrated Report Assessment Category: 5 **Priority Points: 5**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH,LRW,LWH Sampling Year(s): 2001
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	49 Sites	25 Sites						
5-20 mi ²	13 Sites	0 Sites	12.7	33.8	53.5			
20-50 mi ²	6 Sites	0 Sites						
<hr/>						6	37	57
Large (Linear)								
50-500 mi ²	14.6 Miles	0.0 Miles	0.0	39.0	61.0			

High Magnitude Causes

Metals
pH
Siltation
Flow Alteration

High Magnitude Sources

Surface Mining
Acid Mine Drainage

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 279
No. Ambient Sites: 65 No. Ambient Sampling Records: 121 75th %ile: 1200
No. of NPDES MOR Sites: 0 No. of NPDES MOR Records: 0 90th %ile: 3000
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

TMDLs for pollutants impairing beneficial uses is in progress for the Sunday Creek watershed. Monitoring in support of the TMDL/AMDAP projects was conducted by the Ohio EPA in 2001. A watershed action plan for this assessment unit has been endorsed by the Ohio EPA and Ohio DNR.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 144.6
05030204 090 Federal Creek

Integrated Report Assessment Category: 2 **Priority Points:**
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH,LWH Sampling Year(s): 1995
Impairment: No

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	7 Sites	7 Sites						
5-20 mi ²	2 Sites	2 Sites	100.0	0.0	0.0			
20-50 mi ²	Sites	Sites						
<hr/>						100	0	0
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Chemical, physical, and biological sampling will be conducted in the assessment unit in 2004 as part of monitoring in the Hocking River watershed to develop TMDLs for pollutants causing beneficial use impairments.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 109.7
05030204 100 Hocking River (downstream Athens/RM 33.1 to mouth); excluding Federal
Creek and Hocking R. mainstem

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Chemical, physical, and biological sampling will be conducted in the assessment unit in 2004 as part of monitoring in the Hocking River watershed to develop TMDLs for pollutants causing beneficial use impairments.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 187.6**
05040001 020 Chippewa Creek

Integrated Report Assessment Category: 5 **Priority Points: 5**
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: WWH, MWH-C Sampling Year(s): 1998
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	3 Sites	0 Sites						
5-20 mi ²	2 Sites	1 Sites	12.5	58.3	29.2			
20-50 mi ²	7 Sites	0 Sites						
<hr/>						6	51	43
Large (Linear)								
50-500 mi ²	3.5 Miles	0.0 Miles	0.0	42.9	57.1			

High Magnitude Causes

Nutrients
Organic Enrichment/DO
Suspended Solids
Cause Unknown

High Magnitude Sources

Major Industrial Point Source
Major Municipal Point Source
Channelization - Agriculture
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 824
No. Ambient Sites: 38 No. Ambient Sampling Records: 74 75th %ile: 2100
No. of NPDES MOR Sites: 9 No. of NPDES MOR Records: 401 90th %ile: 3790
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Chemical, physical, and biological sampling was conducted in the assessment unit in 2004 as part of monitoring in the Tuscarawas River watershed to develop TMDLs for pollutants causing beneficial use impairments.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 169.5
 05040001 030 Tuscarawas River (downstream Wolf Creek to downstream Sippo Creek);
 excluding Chippewa Creek

Integrated Report Assessment Category: 5 **Priority Points:** 8
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: WWH, MWH-C Sampling Year(s): 2001
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)						19	81	0
50-500 mi ²	6.9 Miles	1.3 Miles	18.8	81.2	0.0			

High Magnitude Causes

Unknown Toxicity
 Flow Alteration
 Other Habitat Alterations
 Cause Unknown

High Magnitude Sources

Landfills
 Onsite Wastewater Systems (Septic Tanks)
 Channelization - Development
 Upstream Impoundment
 Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 333
 No. Ambient Sites: 16 No. Ambient Sampling Records: 62 75th %ile: 955
 No. of NPDES MOR Sites: 4 No. of NPDES MOR Records: 164 90th %ile: 2550
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs, hexachlorobenzene (Tuscarawas River)

Comments

The recent monitoring data collected in this watershed are from a limited number of Tuscarawas River mainstem sites in the vicinity of Barberton. Results of biological sampling done on the Tuscarawas River mainstem in 2001 showed improvement in fish and macroinvertebrate communities compared to sampling at similar sites in 1993. Additional chemical, physical, and biological sampling was conducted in the assessment unit in 2003 and 2004 as part of monitoring in the Tuscarawas River watershed to develop TMDLs for pollutants causing beneficial use impairments.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 134.5
05040001 040 Sandy Creek (headwaters to downstream Still Fork)

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Sandy Creek)

Comments

No recent biological community and water quality data were available for this assessment unit to determine status of the aquatic life uses. As such, this assessment unit was listed as Category 3 (unassessed) in the 2002 Integrated Report. However, the 2004 Integrated Report assessment of fish tissue data documented body burdens of pollutants at levels reflecting a violation(s) of Ohio Water Quality Standards criteria and was thus listed as impaired for fish consumption.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 187.9
05040001 050 Nimishillen Creek

Integrated Report Assessment Category: 5 **Priority Points:** 6
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C,LRW Sampling Year(s): 1998
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	4 Sites	0 Sites						
5-20 mi ²	6 Sites	3 Sites	36.1	27.8	36.1			
20-50 mi ²	9 Sites	2 Sites						
<hr/>						18	45	37
Large (Linear)								
50-500 mi ²	14.7 Miles	0.0 Miles	0.0	61.9	38.1			

High Magnitude Causes

Flow Alteration
Metals
Zinc
Unionized Ammonia
Nutrients
pH
Organic Enrichment/DO
Thermal Modifications

Pathogens
Cause Unknown

High Magnitude Sources

Major Industrial Point Source
Minor Industrial Point Source
Major Municipal Point Source
Nonirrigated Crop Production
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 804
No. Ambient Sites: 45 No. Ambient Sampling Records: 172 75th %ile: 1692
No. of NPDES MOR Sites: 5 No. of NPDES MOR Records: 238 90th %ile: 5900
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Nimishillen Creek)

Comments

Chemical, physical, and biological sampling was conducted in the assessment unit in 2003 and 2004 as part of monitoring in the Tuscarawas River watershed to develop TMDLs for pollutants causing beneficial use impairments.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 181.1**
 05040001 060 Sandy Creek (downstream Still Fork to mouth); excluding Nimishillen
 Creek

Integrated Report Assessment Category: 5 **Priority Points: 2**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1996, 1997, 1998,
 Impairment: Yes 2002

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	3 Sites	2 Sites						
5-20 mi ²	2 Sites	1 Sites	29.2	25.0	45.8			
20-50 mi ²	2 Sites	0 Sites						
<hr/>						21	39	40
Large (Linear)								
50-500 mi ²	11.3 Miles	1.5 Miles	13.3	53.1	33.6			

High Magnitude Causes

Cause Unknown
 Unknown Toxicity
 Siltation
 Other Habitat Alterations

High Magnitude Sources

Municipal Point Source
 Source Unknown
 Channelization - Agriculture
 Removal of Riparian Vegetation - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: No Geometric Mean: 56
 No. Ambient Sites: 3 No. Ambient Sampling Records: 10 75th %ile: 313
 No. of NPDES MOR Sites: 4 No. of NPDES MOR Records: 72 90th %ile: 699
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Sandy Creek)

Comments

The upper portion of Sandy Creek was sampled by Ohio EPA Division of Emergency and Remedial Response from 1996 to 1998. Tributaries were sampled in 2002 by Ohio DNR Division of Wildlife.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 141.8
05040001 070 Conotton Creek (headwaters to downstream McGuire Creek)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment. The last major Ohio EPA survey done within this watershed was in 1982. Only two biological reference sites have been sampled since then.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 144.3
05040001 080 Conotton Creek (downstream McGuire Creek to mouth)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 304
No. Ambient Sites: 0 No. Ambient Sampling Records: 0 75th %ile: 600
No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 101 90th %ile: 1200
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment. The last major Ohio EPA survey done within this watershed was in 1982. Only one biological reference site has been sampled since then.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 113.4**
 05040001 090 Tuscarawas River (downstream Sippo Creek to upstream Sugar Creek);
 excluding Tuscarawas R. mainstem

Integrated Report Assessment Category: 5 **Priority Points: 4**
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 827
 No. Ambient Sites: 11 No. Ambient Sampling Records: 22 75th %ile: 2875
 No. of NPDES MOR Sites: 0 No. of NPDES MOR Records: 0 90th %ile: 5550
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Chemical, physical, and biological sampling was conducted in the assessment unit in 2003 and 2004 as part of monitoring in the Tuscarawas River watershed to develop TMDLs for pollutants causing beneficial use impairments.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 97.3
05040001 100 Sugar Creek (headwaters to upstream Middle Fork)

Integrated Report Assessment Category: 5 **Priority Points:** 7
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1998
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	0 Sites						
5-20 mi ²	7 Sites	4 Sites	53.5	7.2	39.3			
20-50 mi ²	2 Sites	1 Sites						
<hr/>						27	3	70
Large (Linear)								
50-500 mi ²	15.0 Miles	0.0 Miles	0.0	0.0	100.0			

High Magnitude Causes

Nutrients
Siltation
Organic Enrichment/DO
Other Habitat Alterations
Pathogens
Natural Limits (Wetlands)

High Magnitude Sources

Nonirrigated Crop Production Natural
Pasture Land
Feedlots (Confined Animal Feeding Oper.)
Animal Holding/Management Areas
Onsite Wastewater Systems (Septic Tanks)
Channelization - Agriculture
Removal of Riparian Vegetation - Ag.
Streambank Destabilization - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 2881
No. Ambient Sites: 12 No. Ambient Sampling Records: 49 75th %ile: 13250
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 23 90th %ile: 57000
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

TMDLs for the aquatic life use impairment documented in the Sugar Creek watershed were approved by the U.S. EPA on November 20, 2002. Monitoring in support of TMDL development was conducted in 1998. The TMDL report is available at <http://www.epa.state.oh.us/dsw/tmdl/index.html>. The assessment unit remains in Category 5 due to the recreation use impairment.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²): 137.7**
05040001 110 South Fork Sugar Creek

Integrated Report Assessment Category: 5 **Priority Points: 8**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1998
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	14 Sites	0 Sites						
5-20 mi ²	15 Sites	2 Sites	3.4	47.6	49.0			
20-50 mi ²	4 Sites	0 Sites						
<hr/>						2	37	61
Large (Linear)								
50-500 mi ²	13.5 Miles	0.0 Miles	0.0	25.9	74.1			

High Magnitude Causes

Cause Unknown Other Habitat Alterations
Iron Natural Limits (Wetlands)
Unionized Ammonia
Nutrients
pH
Siltation
Organic Enrichment/DO
Flow Alteration

High Magnitude Sources

Minor Industrial Point Source Streambank Destabilization - Ag.
Nonirrigated Crop Production Natural
Pasture Land Source Unknown
Surface Mining
Industrial Land Treatment
Channelization - Agriculture
Flow Regulation/ Modification - Ag.
Removal of Riparian Vegetation - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 2432
No. Ambient Sites: 19 No. Ambient Sampling Records: 60 75th %ile: 6970
No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 60 90th %ile: 13940
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:

FCA Issued:

(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")

Impairment Due to FCA: Pollutant (Waterbody):

Comments

TMDLs for the aquatic life use impairment documented in the Sugar Creek watershed were approved by the U.S. EPA on November 20, 2002. Monitoring in support of TMDL development was conducted in 1998. The TMDL report is available at <http://www.epa.state.oh.us/dsw/tmdl/index.html>. The assessment unit remains in Category 5 due to the recreation use impairment.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 121.3
05040001 120 Sugar Creek (upstream Middle Fork to mouth); excluding South Fork

Integrated Report Assessment Category: 5 **Priority Points: 5**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1998
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	7 Sites	3 Sites						
5-20 mi ²	9 Sites	4 Sites	46.8	27.8	25.4			
20-50 mi ²	2 Sites	1 Sites						
<hr/>						28	37	35
Large (Linear)								
50-500 mi ²	19.5 Miles	2.0 Miles	10.3	46.1	43.6			

High Magnitude Causes

Unknown Toxicity
Metals
pH
Siltation
Other Habitat Alterations
Natural Limits (Wetlands)

High Magnitude Sources

Major Industrial Point Source Streambank Destabilization - Ag.
Nonirrigated Crop Production Natural
Pasture Land
Surface Mining
Landfills
Channelization - Agriculture
Flow Reg./Mod. - Ag.
Removal of Riparian Vegetation - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 740
No. Ambient Sites: 26 No. Ambient Sampling Records: 71 75th %ile: 2450
No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 64 90th %ile: 6400
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

TMDLs for the aquatic life use impairment documented in the Sugar Creek watershed were approved by the USEPA on November 20, 2002. A TMDL to address the recreation use impairment still needs to be completed.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 100.1
 05040001 130 Tuscarawas River (downstream Sugar Cr. to upstream Stillwater Cr.);
 excluding Tuscarawas R. mainstem

Integrated Report Assessment Category: 5 **Priority Points: 6**
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 1177
 No. Ambient Sites: 14 No. Ambient Sampling Records: 37 75th %ile: 5000
 No. of NPDES MOR Sites: 0 No. of NPDES MOR Records: 0 90th %ile: 16000
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Chemical, physical, and biological sampling was conducted in the assessment unit in 2003 and 2004 as part of monitoring in the Tuscarawas River watershed to develop TMDLs for pollutants causing beneficial use impairments.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 122.1
05040001 140 Stillwater Creek (headwaters to downstream Boggs Fork)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment. The only data are from two small streams in a reclaimed mining area owned by Ohio Department of Natural Resources, sampled in 2000.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 159.1
05040001 150 Stillwater Creek (downstream Boggs Fork to downstream Brushy Fork)

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LWH Sampling Year(s): 1994, 1998
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	6 Sites	2 Sites	16.6	16.7	66.7			
20-50 mi ²	1 Sites	0 Sites						
<hr/>						17	16	67
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Siltation
Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
Range Grazing - Riparian
Pasture Land
Channelization - Agriculture
Surface Mining
Flow Regulation/Modification

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 111.0
05040001 160 Little Stillwater Creek

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 92.7
05040001 170 Stillwater Creek (downstream Brushy Fork to mouth); excluding Little
Stillwater Creek

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment. There has been limited sampling on the lower portion of the Stillwater Creek mainstem. No data have been collected in any of the tributaries within this watershed.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 124.7**
 05040001 180 Tuscarawas River (downstream Stillwater Cr. to upstream Evans Cr.);
 excluding Tuscarawas R. mainstem

Integrated Report Assessment Category: 5 **Priority Points: 6**
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 1719
 No. Ambient Sites: 12 No. Ambient Sampling Records: 39 75th %ile: 3200
 No. of NPDES MOR Sites: 0 No. of NPDES MOR Records: 0 90th %ile: 5920
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Chemical, physical, and biological sampling was conducted in the assessment unit in 2003 and 2004 as part of monitoring in the Tuscarawas River watershed to develop TMDLs for pollutants causing beneficial use impairments.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 116.4**
 05040001 190 Tuscarawas River (upstream Evans Creek to mouth); excluding
 Tuscarawas R. mainstem

Integrated Report Assessment Category: 5 **Priority Points: 6**
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 1920
 No. Ambient Sites: 13 No. Ambient Sampling Records: 39 75th %ile: 3400
 No. of NPDES MOR Sites: 0 No. of NPDES MOR Records: 0 90th %ile: 17400
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Chemical, physical, and biological sampling was conducted in the assessment unit in 2003 and 2004 as part of monitoring in the Tuscarawas River watershed to develop TMDLs for pollutants causing beneficial use impairments.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 161.4
05040002 010 Black Fork Mohican River (headwaters to downstream Whetstone Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 8
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1998
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	0 Sites						
5-20 mi ²	Sites	Sites	50.0	50.0	0.0			
20-50 mi ²	4 Sites	2 Sites						
<hr/>						42	46	12
Large (Linear)								
50-500 mi ²	12.0 Miles	4.0 Miles	33.3	41.7	25.0			

High Magnitude Causes

Unknown Toxicity
Nutrients
Siltation
Other Habitat Alterations

High Magnitude Sources

Major Industrial Point Source
Urban Runoff/Storm Sewers (NPS)
Channelization - Agriculture
Channelization - Development
Removal of Riparian Vegetation - Dev.
Contaminated Sediments

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 540
No. Ambient Sites: 10 No. Ambient Sampling Records: 20 75th %ile: 1065
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 274 90th %ile: 2970
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 139.7**
 05040002 020 Black Fork Mohican River (downstream Whetstone Creek to downstream
 Rocky Fork)

Integrated Report Assessment Category: 5 **Priority Points: 5**
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1993, 1994, 1998,
 Impairment: Yes 2002

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	9 Sites	0 Sites						
5-20 mi ²	10 Sites	4 Sites	10.0	25.6	64.4			
20-50 mi ²	4 Sites	0 Sites						
<hr/>						5	63	32
Large (Linear)								
50-500 mi ²	2 Sites							
	3.6 Miles	0.0 Miles	0.0	100.0	0.0			

High Magnitude Causes

Priority Organics
 Metals
 Nutrients
 Organic Enrichment/DO
 Other Habitat Alterations

High Magnitude Sources

Major Industrial Point Source
 Major Municipal Point Source
 Domestic Wastewater Lagoon
 Urban Runoff/Storm Sewer (NPS)
 Onsite Wastewater Systems (Septic Tanks)
 Hydromodification - Development
 Channelization - Development

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 739
 No. Ambient Sites: 5 No. Ambient Sampling Records: 12 75th %ile: 1500
 No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 80 90th %ile: 4630
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 112.1**
05040002 030 Clear Fork Mohican River (headwaters to downstream Cedar Fork)

Integrated Report Assessment Category: 5 **Priority Points: 7**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: CWH,WWH Sampling Year(s): 1998, 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	1 Sites						
5-20 mi ²	1 Sites	1 Sites	100.0	0.0	0.0			
20-50 mi ²	3 Sites	3 Sites						
<hr/>						90	10	0
Large (Linear)								
50-500 mi ²	6.0 Miles	4.8 Miles	80.0	20.0	0.0			

High Magnitude Causes
Unknown Cause

High Magnitude Sources
Unknown Source

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 464
No. Ambient Sites: 5 No. Ambient Sampling Records: 10 75th %ile: 1250
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 20 90th %ile: 1860
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 105.3
05040002 040 Clear Fork Mohican River (downstream Cedar Fork to mouth)

Integrated Report Assessment Category: 1 **Priority Points:**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: CWH,WWH Sampling Year(s): 1998
Impairment: No

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)						100	0	0
50-500 mi ²	15.0 Miles	15.0 Miles	100.0	0.0	0.0			

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 179
No. Ambient Sites: 7 No. Ambient Sampling Records: 14 75th %ile: 300
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 84 90th %ile: 400
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 161.5
05040002 050 Jerome Fork Mohican River

Integrated Report Assessment Category: 5 **Priority Points: 7**
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s): 1998
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	1 Sites						
5-20 mi ²	4 Sites	4 Sites	100.0	0.0	0.0			
20-50 mi ²	3 Sites	3 Sites						
<hr/>						88	12	0
Large (Linear)								
50-500 mi ²	12.3 Miles	9.4 Miles	76.4	23.6	0.0			

High Magnitude Causes

Nutrients

High Magnitude Sources

Major Municipal Point Source

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 707
No. Ambient Sites: 12 No. Ambient Sampling Records: 24 75th %ile: 1700
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 67 90th %ile: 3500
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 105.3
05040002 060 Muddy Fork Mohican River

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment. Only two biological reference sites on the Muddy Fork mainstem, and one site on Redhaw Creek have been sampled..

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 79.8
05040002 070 Lake Fork Mohican River

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

No data of any type have ever been collected by the Ohio EPA within this watershed.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 100.5
05040003 010 Kokosing River (headwaters to upstream North Branch)

Integrated Report Assessment Category: 2 **Priority Points:**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1998, 2002
Impairment: No

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	1 Sites	1 Sites	100.0	0.0	0.0			
20-50 mi ²	2 Sites	2 Sites						
<hr/>						100	0	0
Large (Linear)								
50-500 mi ²	11.9 Miles	11.9 Miles	100.0	0.0	0.0			

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Only biological reference sites have been sampled since 1987.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 97.9
05040003 020 North Branch Kokosing River

Integrated Report Assessment Category: 2 **Priority Points:**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1998
Impairment: No

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	2 Sites	2 Sites	100.0	0.0	0.0			
20-50 mi ²	1 Sites	1 Sites						
						100	0	0
Large (Linear)								
50-500 mi ²	13.5 Miles	13.5 Miles	100.0	0.0	0.0			

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

There is sufficient coverage on the North Branch mainstem, but there are no data from any tributaries within the watershed.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 179.9
05040003 030 Kokosing River (downstream North Branch to upstream Jelloway Creek)

Integrated Report Assessment Category: 5 **Priority Points: 2**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: EWH, WWH Sampling Year(s): 1997, 1998, 2002
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	1 Sites	1 Sites	100.0	0.0	0.0			
20-50 mi ²	2 Sites	2 Sites						
<hr/>						81	7	12
Large (Linear)								
50-500 mi ²	18.3 Miles	11.4 Miles	62.2	14.2	23.6			

High Magnitude Causes

Cause Unknown
Organic Enrichment/DO

High Magnitude Sources

Natural
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 383
No. Ambient Sites: 7 No. Ambient Sampling Records: 67 75th %ile: 595
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 84 90th %ile: 1300
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Only biological reference sites have been sampled since 1987.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 106.3
05040003 040 Kokosing River (upstream Jelloway Creek to mouth)

Integrated Report Assessment Category: 5 **Priority Points: 3**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: EWH Sampling Year(s): 1998, 2002
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	0 Sites						
5-20 mi ²	2 Sites	1 Sites	62.5	12.5	25.0			
20-50 mi ²	2 Sites	2 Sites						
<hr/>						64	13	23
Large (Linear)								
50-500 mi ²	15.8 Miles	10.4 Miles	65.7	12.6	21.7			

High Magnitude Causes

Unknown Cause
Flow Alteration

High Magnitude Sources

Unknown Source
Pasture Land
Other Urban Runoff
Upstream Impoundment

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 301
No. Ambient Sites: 5 No. Ambient Sampling Records: 25 75th %ile: 810
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 44 90th %ile: 1413
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Only biological reference sites have been sampled since 1987.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 138.6
05040003 050 Killbuck Creek (headwaters to upstream Apple Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 8
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1993, 2001, 2002
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	3 Sites	2 Sites						
5-20 mi ²	3 Sites	2 Sites	50.0	33.3	16.7			
20-50 mi ²	3 Sites	1 Sites						
<hr/>						74	18	8
Large (Linear)								
50-500 mi ²	11.8 Miles	11.4 Miles	97.0	3.0	0.0			

High Magnitude Causes

Organic Enrichment/DO
Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
Feedlots (Confined Animal Feeding Oper.)
Channelization - Agriculture
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 440
No. Ambient Sites: 6 No. Ambient Sampling Records: 19 75th %ile: 1033
No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 138 90th %ile: 2640
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Ohio EPA continues to monitor biological reference sites in this assessment unit. Several previously unassessed streams were sampled by ODNR Division of Wildlife in 2001. Data were used as a supplement to Ohio EPA data in determining aquatic life use attainment.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 171.1**
 05040003 060 Killbuck Creek (upstream Apple Creek to downstream Salt Creek)

Integrated Report Assessment Category: 5 **Priority Points: 7**
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1993, 2001
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	6 Sites	6 Sites	83.3	0.0	16.7			
20-50 mi ²	2 Sites	2 Sites						
Large (Linear)						57	12	31
50-500 mi ²	15.2 Miles	4.6 Miles	30.3	25.0	44.7			

High Magnitude Causes

Organic Enrichment/DO
 Other Habitat Alterations

High Magnitude Sources

Channelization - Agriculture
 Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 585
 No. Ambient Sites: 5 No. Ambient Sampling Records: 9 75th %ile: 1460
 No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 56 90th %ile: 3280
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Several previously unassessed streams in this watershed were sampled by ODNR Division of Wildlife in 2001. Data were used as a supplement to Ohio EPA data in determining aquatic life use attainment status.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 151.9
05040003 070 Killbuck Creek (downstream Salt Creek to downstream Black Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 2
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1993, 2001
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	4 Sites	3 Sites						
5-20 mi ²	5 Sites	5 Sites	93.8	0.0	6.2			
20-50 mi ²	1 Sites	1 Sites						
						97	0	3
Large (Linear)								
50-500 mi ²	6.3 Miles	6.3 Miles	100.0	0.0	0.0			

High Magnitude Causes

Cause Unknown
Flow Alteration

High Magnitude Sources

Natural
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 106
No. Ambient Sites: 1 No. Ambient Sampling Records: 4 75th %ile: 659
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 55 90th %ile: 916
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Several previously unassessed streams in this watershed were sampled by ODNR Division of Wildlife in 2001. Data were used as a supplement to Ohio EPA data in determining aquatic life use attainment status.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 146.9**
 05040003 080 Killbuck Creek (downstream Black Creek to mouth)

Integrated Report Assessment Category: 5 **Priority Points: 8**
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1993, 1994, 2001
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	5 Sites	3 Sites						
5-20 mi ²	5 Sites	5 Sites	65.0	25.0	10.0			
20-50 mi ²	2 Sites	1 Sites						
<hr/>						75	20	5
Large (Linear)								
50-500 mi ²	7.0 Miles	6.0 Miles	85.7	14.3	0.0			

High Magnitude Causes

Cause Unknown
 Organic Enrichment

High Magnitude Sources

Onsite Wastewater Systems (Septic Tanks)
 Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 754
 No. Ambient Sites: 5 No. Ambient Sampling Records: 37 75th %ile: 1600
 No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 40 90th %ile: 2880
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Several previously unassessed streams in this watershed were sampled by ODNR Division of Wildlife in 2001. Data were used as a supplement to Ohio EPA data in determining aquatic life use attainment status.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 157.3**
 05040003 090 Walhonding River; excluding Killbuck Creek and Walhonding R. mainstem

Integrated Report Assessment Category: 5 **Priority Points: 6**
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH,LWH Sampling Year(s): 1994
 Impairment: No

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	5 Sites	5 Sites	100.0	0.0	0.0			
20-50 mi ²	1 Sites	1 Sites						
						100	0	0
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 1114
 No. Ambient Sites: 2 No. Ambient Sampling Records: 2 75th %ile: 3500
 No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 42 90th %ile: 9470
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

All sites on tributaries draining to the Walhonding River were in full attainment of biological criteria.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²): 118.1**
 05040004 020 Wakatomika Creek (headwaters to downstream Brushy Fork)

Integrated Report Assessment Category: 5 **Priority Points: 9**
Next Scheduled Monitoring: 2003

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1994, 1997, 1998
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	5 Sites	4 Sites	90.0	0.0	10.0			
20-50 mi ²	1 Sites	1 Sites						
						90	0	10
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Natural Limits (Wetlands)

High Magnitude Sources

Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 1599
 No. Ambient Sites: 24 No. Ambient Sampling Records: 81 75th %ile: 3400
 No. of NPDES MOR Sites: 0 No. of NPDES MOR Records: 0 90th %ile: 10900
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway in the Wakatomika Creek watershed. Monitoring in support of TMDL development was conducted in 2003.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 116.1
05040004 030 Wakatomika Creek (downstream Brushy Fork to mouth)

Integrated Report Assessment Category: 5 **Priority Points:** 7
Next Scheduled Monitoring: 2003

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH,LWH Sampling Year(s): 1994, 1996, 1997
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	2 Sites	1 Sites	50.0	0.0	50.0			
20-50 mi ²	Sites	Sites						
Large (Linear)						66	9	25
50-500 mi ²	15.8 Miles	12.8 Miles	81.0	19.0	0.0			

High Magnitude Causes

High Magnitude Sources

Siltation
Other Habitat Alterations

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 554
No. Ambient Sites: 27 No. Ambient Sampling Records: 90 75th %ile: 850
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 17 90th %ile: 2280
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway in the Wakatomika Creek watershed. Monitoring in support of TMDL development was conducted in 2003.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 193.9
05040004 040 Jonathan Creek

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH,LRW,LWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Virtually no biological sampling has been done in the Moxahala Creek watershed due to severe mining impacts and lack of WWTPs in the basin. Only one biological reference site on Jonathan Creek has been sampled recently. Fish tissue sampling was conducted in Moxahala Creek in 2000.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 108.4
05040004 050 Moxahala Creek (excluding Jonathan Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW,LWH Sampling Year(s): 1997, 1998, 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	1 Sites						
5-20 mi ²	3 Sites	0 Sites	25.0	16.7	58.3			
20-50 mi ²	Sites	Sites						
<hr/>						25	17	58
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

pH
Siltation
Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Surface Mining
Subsurface Mining
Channelization - Development
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 144.8**
05040004 060 Salt Creek

Integrated Report Assessment Category: 5 **Priority Points: 4**
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1996, 1997, 2002
Impairment: No

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	6 Sites	6 Sites	100.0	0.0	0.0			
20-50 mi ²	2 Sites	2 Sites						
						100	0	0
Large (Linear)								
50-500 mi ²	4.1 Miles	4.1 Miles	100.0	0.0	0.0			

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 644
No. Ambient Sites: 24 No. Ambient Sampling Records: 48 75th %ile: 1500
No. of NPDES MOR Sites: 0 No. of NPDES MOR Records: 0 90th %ile: 3430
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Only fish sampling has been done in this assessment unit. Based on fish results only, all sampling locations were in full attainment of their aquatic life uses.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 142.2
05040004 080 Meigs Creek

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1989
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites	0.0	50.0	50.0			
20-50 mi ²	2 Sites	0 Sites						
<hr/>						0	25	75
Large (Linear)								
50-500 mi ²	8.1 Miles	0.0 Miles	0.0	0.0	100.0			

High Magnitude Causes High Magnitude Sources
Siltation Surface Mining

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 154.3**
05040004 090 Wolf Creek; West Branch Wolf Creek;

Integrated Report Assessment Category: 5 **Priority Points: 3**
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: EWH Sampling Year(s): 1999, 2002
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	1 Sites						
5-20 mi ²	7 Sites	3 Sites	71.4	0.0	28.6			
20-50 mi ²	Sites	Sites						
<hr/>						58	14	28
Large (Linear)								
50-500 mi ²	7.2 Miles	3.2 Miles	44.4	27.8	27.8			

High Magnitude Causes

Nutrients
Pathogens

High Magnitude Sources

Pasture Land

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Biological references sites continue to be monitored within this assessment unit. Several new tributaries had fish sampling done in 2002, resulting in a more comprehensive assessment of the watershed than in previous assessment cycles.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 79.6
05040004 100 South Branch Wolf Creek

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: EWH Sampling Year(s): 1999, 2002
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	3 Sites	2 Sites	58.3	25.0	16.7			
20-50 mi ²	2 Sites	1 Sites						
<hr/>						29	13	58
Large (Linear)								
50-500 mi ²	7.2 Miles	0.0 Miles	0.0	0.0	100.0			

High Magnitude Causes

Siltation
Flow Alteration

High Magnitude Sources

Channelization - Agriculture
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Biological references sites continue to be monitored within this assessment unit. Several new tributaries had fish sampling done in 2002, resulting in a more comprehensive assessment of the watershed than in previous assessment cycles.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 150.5
05040005 010 Seneca Fork

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Biological monitoring of Seneca Fork has not been done since 1984. Fish tissue sampling was done in 1993 and 1994.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 163.4**
 05040005 020 Wills Creek (headwaters to upstream Leatherwood Creek); excluding
 Seneca Fork

Integrated Report Assessment Category: 5 **Priority Points: 5**
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW,LWH Sampling Year(s): 1994, 1999
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	8 Sites	0 Sites	0.0	37.5	62.5			
20-50 mi ²	Sites	Sites						
<hr/>						0	39	61
Large (Linear)								
50-500 mi ²	15.2 Miles	0.0 Miles	0.0	41.4	58.6			

High Magnitude Causes
 Metals
 Unionized Ammonia
 Siltation
 Other Habitat Alterations

High Magnitude Sources
 Surface Mining
 Onsite Wastewater Systems (Septic Tanks)
 Hazardous Waste
 Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 860
 No. Ambient Sites: 6 No. Ambient Sampling Records: 18 75th %ile: 2775
 No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 18 90th %ile: 7678
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Only biological reference sites have been sampled since 1987. However, mining impacts are so severe (sedimentation) that the mainstem and several of the headwaters tributaries are still representative of the majority of the basin.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 91.6
05040005 030 Leatherwood Creek

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 159.3
05040005 040 Salt Fork

Integrated Report Assessment Category: 5 **Priority Points:** 2
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1994
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	4 Sites	1 Sites						
5-20 mi ²	3 Sites	1 Sites	14.6	79.2	6.2			
20-50 mi ²	2 Sites	0 Sites						
<hr/>						15	79	6
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Siltation
Other Habitat Alterations

High Magnitude Sources

Pature Land
Range Grazing - Riparian
Range Grazing - Upland
Channelization - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 111.4**
05040006 010 North Fork Licking River (headwaters to downstream Sycamore Creek)

Integrated Report Assessment Category: 5 **Priority Points: 6**
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: WWH, LRW Sampling Year(s): 1993, 1999, 2000, 2001
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	5 Sites	0 Sites						
5-20 mi ²	8 Sites	4 Sites	62.5	14.4	23.1			
20-50 mi ²	5 Sites	5 Sites						
<hr/>						81	7	12
Large (Linear)								
50-500 mi ²	2.0 Miles	2.0 Miles	100.0	0.0	0.0			

High Magnitude Causes

Nutrients
Siltation
Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
Confined Animal Feeding Operation (NPS)
Channelization - Agriculture
Removal of Riparian Vegetation - Ag.
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 167
No. Ambient Sites: 9 No. Ambient Sampling Records: 17 75th %ile: 600
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 85 90th %ile: 2100
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Most of the recent data (1999-2001) are from Otter Fork, related to a large confined animal feeding operation (CAFO). Two biological reference sites have also been sampled.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 129.0
05040006 020 North Fork Licking River (downstream Sycamore Creek to mouth)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment. Only biological reference sites have been sampled in this watershed since 1993. The lower portion of the North Fork mainstem was sampled in 1993.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 101.7
05040006 030 Raccoon Creek

Integrated Report Assessment Category: 5 **Priority Points:** 4
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW-S, MWH-C Sampling Year(s): 1993, 1996, 2000, 2001
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	9 Sites	0 Sites						
5-20 mi ²	10 Sites	7 Sites	42.5	35.6	21.9			
20-50 mi ²	2 Sites	1 Sites						
<hr/>						52	37	11
Large (Linear)								
50-500 mi ²	3.2 Miles	2.0 Miles	62.5	37.5	0.0			

High Magnitude Causes

Nutrients
Siltation
Organic Enrichment/DO
Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
Confined Animal Feeding Operation (NPS)
Land Development/Suburbanization
Channelization - Agriculture
Removal of Riparian Vegetation - Ag.
Spills
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 252
No. Ambient Sites: 3 No. Ambient Sampling Records: 10 75th %ile: 600
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 67 90th %ile: 1720
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

All of the sampling done from 1998-2001 was related to spills and manure spreading associated with a large confined animal feeding operation (CAFO). Sampling was done to monitor the recovery of Raccoon Creek and Lobdell Creek after major fish kills occurred in 1999.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 184.9**
05040006 040 South Fork Licking River (excluding Raccoon Creek)

Integrated Report Assessment Category: 5 **Priority Points: 6**
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1993, 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	5 Sites	4 Sites	90.0	0.0	10.0			
20-50 mi ²	3 Sites	3 Sites						
<hr/>						95	0	5
Large (Linear)								
50-500 mi ²	22.8 Miles	22.8 Miles	100.0	0.0	0.0			

High Magnitude Causes

Priority Organics

High Magnitude Sources

Contaminated Sediments

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 377
No. Ambient Sites: 0 No. Ambient Sampling Records: 0 75th %ile: 833
No. of NPDES MOR Sites: 6 No. of NPDES MOR Records: 261 90th %ile: 2600
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 159.7
05060001 010 Scioto River (headwaters to downstream Taylor Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 4
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C Sampling Year(s): 1995
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	8 Sites	4 Sites	41.7	39.6	18.7			
20-50 mi ²	3 Sites	1 Sites						
<hr/>						38	53	9
Large (Linear)								
50-500 mi ²	24.9 Miles	8.6 Miles	34.6	65.4	0.0			

High Magnitude Causes

Other Habitat Alterations

High Magnitude Sources

Channelization - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Scioto River)

Comments

Chemical, physical, and biological sampling will be conducted in the assessment unit in 2004 as part of monitoring in the Scioto River watershed to develop TMDLs for pollutants causing beneficial use impairments.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 105.3
05060001 020 Rush Creek

Integrated Report Assessment Category: 5 **Priority Points: 4**
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 572
No. Ambient Sites: 2 No. Ambient Sampling Records: 4 75th %ile: 2050
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 24 90th %ile: 10000
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Chemical, physical, and biological sampling will be conducted in the assessment unit in 2004 as part of monitoring in the Scioto River watershed to develop TMDLs for pollutants causing beneficial use impairments.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 144.6**
 05060001 030 Scioto River (downstream Taylor Creek to upstream Little Scioto River);
 excluding Rush Creek

Integrated Report Assessment Category: 5 **Priority Points: 5**
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1995
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	3 Sites	1 Sites	66.7	33.3	0.0			
20-50 mi ²	2 Sites	2 Sites						
<hr/>						83	17	0
Large (Linear)								
50-500 mi ²	34.7 Miles	34.5 Miles	99.4	0.6	0.0			

High Magnitude Causes

Cause Unknown
 Organic Enrichment/DO
 Other Habitat Alterations

High Magnitude Sources

Pasture Land
 Onsite Wastewater Systems (Septic Tanks)
 Channelization - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Scioto River)

Comments

Chemical, physical, and biological sampling will be conducted in the assessment unit in 2004 as part of monitoring in the Scioto River watershed to develop TMDLs for pollutants causing beneficial use impairments.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 112.6
05060001 040 Little Scioto River

Integrated Report Assessment Category: 5 **Priority Points:** 5
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C,LRW Sampling Year(s): 1998, 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	1 Sites						
5-20 mi ²	4 Sites	0 Sites	37.5	25.0	37.5			
20-50 mi ²	2 Sites	1 Sites						
<hr/>						19	21	60
Large (Linear)								
50-500 mi ²	11.6 Miles	0.0 Miles	0.0	17.2	82.8			

High Magnitude Causes

Priority Organics
Metals
Nutrients
Siltation
Organic Enrichment/DO
Flow Alteration
Other Habitat Alterations
Oil and Grease

High Magnitude Sources

Combined Sewer Overflow
Nonirrigated Crop Production
Onsite Wastewater Systems (Septic Tanks)
Channelization - Agriculture
Channelization - Development
Removal of Riparian Vegetation - Ag.
Contaminated Sediments
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact

Impairment: Yes

No. Ambient Sites: 2

No. Ambient Sampling Records: 2

Geometric Mean: 400

75th %ile: 933

No. of NPDES MOR Sites: 1

No. of NPDES MOR Records: 249

90th %ile: 3000

Other: A "Dermal Contact Advisory" is in effect for the Little Scioto River due to PAHs contamination. The area under the advisory is from St. Rt. 739 near Marion to Holland Rd. near Marion.

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes

FCA Issued: Yes

(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")

Impairment Due to FCA: No

Pollutant (Waterbody):

Comments

A USEPA funded project to remediate contaminated sediments in the Little Scioto River is underway. Future monitoring within the watershed will be conducted within the normal rotating basin schedule after the cessation of the project and when sufficient recovery time has elapsed.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 140.0**
 05060001 050 Scioto River (downstream Little Scioto River to upstream Bokes Creek);
 excluding Scioto R. mainstem

Integrated Report Assessment Category: 5 **Priority Points: 4**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s): 1995
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 618
 No. Ambient Sites: 10 No. Ambient Sampling Records: 25 75th %ile: 1555
 No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 22 90th %ile: 10672
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²): 107.7**
 05060001 060 Scioto River (upstream Bokes Creek to upstream Mill Creek); excluding
 Scioto R. mainstem

Integrated Report Assessment Category: 5 **Priority Points: 9**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s): 1999
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	15 Sites	1 Sites						
5-20 mi ²	4 Sites	0 Sites	18.3	33.3	48.4			
20-50 mi ²	3 Sites	1 Sites						
Large (Linear)						9	61	30
50-500 mi ²	18.0 Miles	0.0 Miles	0.0	88.9	11.1			

High Magnitude Causes

Unknown Toxicity
 Unionized Ammonia
 Nutrients
 Siltation
 Organic Enrichment/DO
 Salinity/TDS/Chlorides
 Other Habitat Alterations

High Magnitude Sources

Minor Industrial Point Source Channelization -
 Agriculture
 Nonirrigated Crop Production Dredging - Agriculture
 Pasture Land Removal of Riparian Veg.
 - Ag
 Range Land Bank Destabilization - Ag.
 Feedlots (Confined Animals Feeding Oper.) Spills
 Animal Holding/ Management Areas
 Onsite Wastewater Systems (Septic Tanks)
 Septage Disposal

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 1088
 No. Ambient Sites: 22 No. Ambient Sampling Records: 89 75th %ile: 3400
 No. of NPDES MOR Sites: 0 No. of NPDES MOR Records: 0 90th %ile: 36800
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

TMDLs for the aquatic life use impairment documented in the Bokes Creek watershed were approved by the U.S. EPA on September 27, 2002. Monitoring in support of TMDL development was conducted in 1999. The TMDL report is available at <http://www.epa.state.oh.us/dsw/tmdl/index.html>. The assessment unit remains in Category 5 due to the recreation use impairment.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 179.3
05060001 070 Mill Creek

Integrated Report Assessment Category: 5 **Priority Points:** 8
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C,LRW Sampling Year(s): 1995, 2000, 2001
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	9 Sites	1 Sites						
5-20 mi ²	4 Sites	2 Sites	45.5	0.0	54.5			
20-50 mi ²	5 Sites	3 Sites						
<hr/>						48	19	33
Large (Linear)								
50-500 mi ²	39.4 Miles	20.2 Miles	51.3	37.0	11.7			

High Magnitude Causes

Unknown Toxicity
Pesticides
Metals
Unionized Ammonia
Organic Enrichment/DO
Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Minor Industrial Point Source Source Unknown
Major Municipal Point Source
Industrial Land Treatment
Onsite Wastewater Systems (Septic Tanks)
Hazardous Waste
Channelization - Agriculture
Spills
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 1022
No. Ambient Sites: 3 No. Ambient Sampling Records: 59 75th %ile: 2642
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 88 90th %ile: 7808
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

TMDLs for pollutants impairing the aquatic life beneficial use in the Mill Creek watershed were approved by the U.S. EPA on September 2, 2003. Monitoring in support of the TMDL was conducted in 1995, 2000, and 2001. The TMDL report is available at <http://www.epa.state.oh.us/dsw/tmdl/index.html>. The assessment unit remains in Category 5 due to the recreation use impairment.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 119.7**
 05060001 080 Scioto River (downstream Mill Creek to upstream Olentangy River);
 excluding Scioto R. mainstem

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1994, 1997, 1999
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	5 Sites	0 Sites						
5-20 mi ²	5 Sites	1 Sites	10.0	0.0	90.0			
20-50 mi ²	Sites	Sites						
<hr/>						10	0	90
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Cause Unknown
 Unknown Toxicity
 Priority Organics
 Unionized Ammonia
 Siltation
 Organic Enrichment/DO
 Other Habitat Alterations

High Magnitude Sources

Municipal Point Source Source Unknown
 Package Plant (Small Flows)
 Nonirrigated Crop Production
 Land Development/ Suburbanization
 Channelization - Agriculture
 Channelization - Development
 Removal of Riparian Vegetation - Dev.
 Spills

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Most of the streams in this watershed are small streams, impaired by urban land use.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 133.6
05060001 090 Olentangy River (headwaters to downstream Flat Run)

Integrated Report Assessment Category: 5 **Priority Points:** 8
Next Scheduled Monitoring: 2003

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C,LRW Sampling Year(s): 1994
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	1 Sites						
5-20 mi ²	6 Sites	4 Sites	66.7	16.7	16.6			
20-50 mi ²	3 Sites	2 Sites						
<hr/>						64	28	8
Large (Linear)								
50-500 mi ²	13.0 Miles	8.0 Miles	61.5	38.5	0.0			

High Magnitude Causes

Unionized Ammonia
Nutrients
Organic Enrichment/DO
Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Onsite Wastewater Systems (Septic Tanks)
Channelization - Agriculture
Removal of Riparian Vegetation - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 970
No. Ambient Sites: 21 No. Ambient Sampling Records: 124 75th %ile: 2600
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 49 90th %ile: 5760
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway in the Olentangy River watershed. Monitoring in support of TMDL development was conducted in 2003 and 2004.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 114.5**
05060001 100 Whetstone Creek

Integrated Report Assessment Category: 5 **Priority Points: 8**
Next Scheduled Monitoring: 2003

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1994
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites	66.7	33.3	0.0			
20-50 mi ²	6 Sites	4 Sites						
<hr/>						60	40	0
Large (Linear)								
50-500 mi ²	3 Sites							
	6.5 Miles	3.5 Miles	53.8	46.2	0.0			

High Magnitude Causes

Unionized Ammonia
Chlorine
Nutrients
Organic Enrichment/DO
Other Habitat Alterations

High Magnitude Sources

Minor Municipal Point Source
Nonirrigated Crop Production
Range Grazing - Riparian
Urban Runoff/Storm Sewers (NPS)
Onsite Wastewater Systems (Septic Tanks)
Removal of Riparian Vegetation - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 921
No. Ambient Sites: 24 No. Ambient Sampling Records: 144 75th %ile: 2975
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 98 90th %ile: 8950
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway in the Olentangy River watershed. Monitoring in support of TMDL development was conducted in 2003 and 2004.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 183.0**
 05060001 110 Olentangy River (downstream Flat Run to downstream Delaware Run);
 excluding Whetstone Creek

Integrated Report Assessment Category: 5 **Priority Points: 8**
Next Scheduled Monitoring: 2003

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s): 1994, 1999
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	6 Sites	1 Sites						
5-20 mi ²	9 Sites	1 Sites	13.9	41.7	44.4			
20-50 mi ²	Sites	Sites						
<hr/>						52	26	22
Large (Linear)								
50-500 mi ²	23.0 Miles	20.5 Miles	89.1	10.9	0.0			

High Magnitude Causes

Pesticides
 Priority Organics
 Metals
 Nutrients
 Siltation
 Organic Enrichment/DO
 Other Habitat Alterations

High Magnitude Sources

Minor Municipal Point Source Streambank Destabilization - Ag.
 Nonirrigated Crop Production
 Land Development/Suburbanization
 Sewer Line Construction
 Urban Runoff/Storm Sewers (NPS)
 Channelization - Agriculture
 Channelization - Development
 Removal of Riparian Vegetation - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 412
 No. Ambient Sites: 28 No. Ambient Sampling Records: 155 75th %ile: 1200
 No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 61 90th %ile: 2700
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Olentangy River)

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway in the Olentangy River watershed. Monitoring in support of TMDL development was conducted in 2003 and 2004.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 113.0**
05060001 120 Olentangy River (downstream Delaware Run to mouth)

Integrated Report Assessment Category: 5 **Priority Points: 2**
Next Scheduled Monitoring: 2003

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH,LRW Sampling Year(s): 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	11 Sites	0 Sites						
5-20 mi ²	1 Sites	0 Sites	0.0	54.6	45.4			
20-50 mi ²	10 Sites	0 Sites						
<hr/>						33	42	25
Large (Linear)								
50-500 mi ²	17.7 Miles	11.6 Miles	65.5	28.9	5.6			

High Magnitude Causes

Cause Unknown Flow Alteration
Unknown Toxicity Other Habitat Alterations
Pesticides
Priority Organics
Metals
Other Inorganics
Nutrients
Organic Enrichment/DO

High Magnitude Sources

Municipal Point Sources
Nonirrigated Crop Production
Urban Runoff/Storm Sewers (NPS)
Channelization - Development
Spills
Contaminated Sediments
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 296
No. Ambient Sites: 40 No. Ambient Sampling Records: 267 75th %ile: 626
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 125 90th %ile: 1692
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Olentangy River)

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway in the Olentangy River watershed. Monitoring in support of TMDL development was conducted in 2003 and 2004. A watershed action plan for this assessment unit has been endorsed by the Ohio EPA and Ohio DNR.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 189.6
05060001 130 Big Walnut Creek (headwaters to Hoover Dam)

Integrated Report Assessment Category: 5 **Priority Points:** 7
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 2000
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	16 Sites	5 Sites						
5-20 mi ²	15 Sites	7 Sites	36.2	8.0	55.8			
20-50 mi ²	3 Sites	1 Sites						
<hr/>						68	4	28
Large (Linear)								
50-500 mi ²	3 Sites							
	8.4 Miles	8.4 Miles	100.0	0.0	0.0			

High Magnitude Causes

Cause Unknown Suspended Solids
Unionized Ammonia Pathogens
Nutrients
Siltation
Organic Enrichment/DO
Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
Land Development/Suburbanization
Urban Runoff/Storm Sewers (NPS)
Onsite Wastewater Systems (Septic Tanks)
Septage Disposal
Hydromodification - Agriculture
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 476
No. Ambient Sites: 43 No. Ambient Sampling Records: 205 75th %ile: 1114
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 26 90th %ile: 2900
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

TMDLs for pollutants impairing beneficial uses are in progress for the Big Walnut Creek watershed. Monitoring in support of the TMDL was conducted in 2000. The 2000 Big Walnut Creek basin report (EAS/2003-11-10) is available at http://www.epa.state.oh.us/dsw/document_index/psdindx.html.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 121.8
05060001 150 Alum Creek (headwaters to Alum Creek Dam)

Integrated Report Assessment Category: 5 **Priority Points:** 8
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 2000
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	1 Sites						
5-20 mi ²	8 Sites	2 Sites	37.5	43.8	18.7			
20-50 mi ²	2 Sites	1 Sites						
<hr/>						69	22	9
Large (Linear)								
50-500 mi ²	1.6 Miles	1.6 Miles	100.0	0.0	0.0			

High Magnitude Causes

Cause Unknown
Nutrients
Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
Natural
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 507
No. Ambient Sites: 17 No. Ambient Sampling Records: 87 75th %ile: 1109
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 24 90th %ile: 2700
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

TMDLs for pollutants impairing beneficial uses are in progress for the Big Walnut Creek watershed. Monitoring in support of the TMDL was conducted in 2000. The 2000 Big Walnut Creek basin report (EAS/2003-11-10) is available at http://www.epa.state.oh.us/dsw/document_index/psdindx.html.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 99.7
05060001 160 Big Walnut Creek (Alum Creek to mouth); Alum Creek (downstream Alum
Creek Dam to mouth)

Integrated Report Assessment Category: 5 **Priority Points: 8**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH,LRW Sampling Year(s): 2000
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	0 Sites						
5-20 mi ²	1 Sites	0 Sites	0.0	100.0	0.0			
20-50 mi ²	Sites	Sites						
<hr/>						44	56	0
Large (Linear)								
50-500 mi ²	18.3 Miles	8.0 Miles	43.5	56.5	0.0			

High Magnitude Causes

Cause Unknown
Siltation
Organic Enrichment/DO
Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Combined Sewer Overflows
Land Development/Suburbanization
Urban Runoff/Storm Sewers (NPS)
Channelization - Development
Habitat Modifications o/than Hydromod.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 519
No. Ambient Sites: 16 No. Ambient Sampling Records: 73 75th %ile: 981
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 76 90th %ile: 5567
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

TMDLs for pollutants impairing beneficial uses are in progress for the Big Walnut Creek watershed. Monitoring in support of the TMDL was conducted in 2000. The 2000 Big Walnut Creek basin report (EAS/2003-11-10) is available at http://www.epa.state.oh.us/dsw/document_index/psdindx.html.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 138.0**
 05060001 170 Walnut Creek (headwaters to downstream Sycamore Creek)

Integrated Report Assessment Category: 5 **Priority Points: 4**
Next Scheduled Monitoring: 2005

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1996
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	2 Sites						
5-20 mi ²	16 Sites	11 Sites	84.4	15.6	0.0			
20-50 mi ²	2 Sites	2 Sites						
<hr/>						88	8	4
Large (Linear)								
50-500 mi ²	12.5 Miles	11.5 Miles	92.0	0.0	8.0			

High Magnitude Causes

Cause Unknown
 Mercury
 Organic Enrichment/DO
 Flow Alteration

High Magnitude Sources

Major Industrial Point Source
 Land Development/Suburbanization
 Urban Runoff/Storm Sewers (NPS)
 Spills
 Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: No Geometric Mean: 303
 No. Ambient Sites: 2 No. Ambient Sampling Records: 10 75th %ile: 700
 No. of NPDES MOR Sites: 6 No. of NPDES MOR Records: 143 90th %ile: 1640
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Walnut Creek)

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 147.5**
05060001 180 Walnut Creek (downstream Sycamore Creek to mouth)

Integrated Report Assessment Category: 5 **Priority Points: 4**
Next Scheduled Monitoring: 2005

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH,MWH-C Sampling Year(s): 1996
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	9 Sites	4 Sites						
5-20 mi ²	7 Sites	5 Sites	29.0	9.9	61.1			
20-50 mi ²	1 Sites	0 Sites						
<hr/>						63	5	32
Large (Linear)								
50-500 mi ²	29.5 Miles	28.5 Miles	96.6	0.0	3.4			

High Magnitude Causes

Cause Unknown
Unknown Toxicity
Siltation
Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
Land Development/Suburbanization
Urban Runoff/Storm Sewers (NPS)
Channelization - Development
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 188
No. Ambient Sites: 3 No. Ambient Sampling Records: 15 75th %ile: 565
No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 81 90th %ile: 1600
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Walnut Creek)

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 176.1
05060001 190 Big Darby Creek (headwaters to downstream Sugar Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 9
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH,MWH-C Sampling Year(s): 2001, 2002
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	13 Sites	11 Sites						
5-20 mi ²	14 Sites	9 Sites	62.3	34.0	3.7			
20-50 mi ²	2 Sites	1 Sites						
<hr/>						57	31	12
Large (Linear)								
50-500 mi ²	21 Sites							
	21.9 Miles	11.5 Miles	52.5	27.9	19.6			

High Magnitude Causes

Siltation
Organic Enrichment/DO
Other Habitat Alterations

High Magnitude Sources

Minor Municipal Point Source
Pasture Land
Highway/Road/Bridge/Sewer Line
Channelization - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 435
No. Ambient Sites: 40 No. Ambient Sampling Records: 139 75th %ile: 1125
No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 88 90th %ile: 3500
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Big Darby Creek)

Comments

TMDLs for pollutants impairing beneficial uses are in progress for the Big Darby Creek basin. Monitoring in support of the TMDL was conducted in 2001 and 2002.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 77.0
 05060001 200 Big Darby Creek (downstream Sugar Creek to upstream Little Darby
 Creek)

Integrated Report Assessment Category: 5 **Priority Points: 5**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 2001, 2002
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	2 Sites						
5-20 mi ²	2 Sites	1 Sites	75.0	25.0	0.0			
20-50 mi ²	Sites	Sites						
<hr/>						72	28	0
Large (Linear)								
50-500 mi ²	16.8 Miles	11.6 Miles	69.3	30.7	0.0			

High Magnitude Causes

Unionized Ammonia
 Organic Enrichment/DO

High Magnitude Sources

Package Plants (Small Flows)
 Combined Sewer Overflows
 Spills

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: No Geometric Mean: 228
 No. Ambient Sites: 8 No. Ambient Sampling Records: 22 75th %ile: 700
 No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 35 90th %ile: 1880
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Big Darby Creek)

Comments

TMDLs for pollutants impairing beneficial uses are in progress for the Big Darby Creek basin. Monitoring in support of the TMDL was conducted in 2001 and 2002.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 178.5**
05060001 210 Little Darby Creek

Integrated Report Assessment Category: 5 **Priority Points: 9**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: EWH Sampling Year(s): 2001, 2002
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	8 Sites	2 Sites						
5-20 mi ²	12 Sites	5 Sites	66.7	0.0	33.3			
20-50 mi ²	3 Sites	2 Sites						
<hr/>						67	22	11
Large (Linear)								
50-500 mi ²	32.0 Miles	27.0 Miles	84.4	15.6	0.0			

High Magnitude Causes

Organic Enrichment/DO

High Magnitude Sources

Pasture Land

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 297
No. Ambient Sites: 28 No. Ambient Sampling Records: 147 75th %ile: 923
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 52 90th %ile: 3040
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Little Darby Creek)

Comments

TMDLs for pollutants impairing beneficial uses are in progress for the Big Darby Creek basin. Monitoring in support of the TMDL was conducted in 2001 and 2002.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 124.0
05060001 220 Big Darby Creek (downstream Little Darby Creek to mouth)

Integrated Report Assessment Category: 5 **Priority Points:** 9
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH,MWH-C Sampling Year(s): 2001, 2002
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	14 Sites	7 Sites						
5-20 mi ²	6 Sites	3 Sites	57.1	42.9	0.0			
20-50 mi ²	7 Sites	4 Sites						
<hr/>						77	16	7
Large (Linear)								
50-500 mi ²	34.1 Miles	34.1 Miles	100.0	0.0	0.0			

High Magnitude Causes

Nutrients
Siltation
Organic Enrichment/DO
Flow Alteration
Other Habitat Alterations
Pathogens

High Magnitude Sources

Package Plants (Small Flows)
Nonirrigated Crop Production
Land Development/Suburbanization
Urban Runoff/Storm Sewers (NPS)
Onsite Wastewater Systems (Septic Tanks)
Channelization - Agriculture
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 273
No. Ambient Sites: 26 No. Ambient Sampling Records: 220 75th %ile: 638
No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 103 90th %ile: 2080
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Big Darby Creek)

Comments

TMDLs for pollutants impairing beneficial uses are in progress for the Big Darby Creek basin. Monitoring in support of the TMDL was conducted in 2001 and 2002.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 187.2**
 05060001 230 Scioto River (downstream Olentangy River to upstream Big Darby Creek);
 excluding Scioto R. mainstem

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s): 1994, 1997, 2001
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	6 Sites	1 Sites						
5-20 mi ²	4 Sites	1 Sites	20.8	12.5	66.7			
20-50 mi ²	Sites	Sites						
<hr/>						21	12	67
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Flow Alteration
 Other Habitat Alterations

High Magnitude Sources

Land Development/Suburbanization
 Urban Runoff/Storm Sewers (NPS)

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Several urban streams in Columbus, Grove City and southern Franklin County were sampled between 1993 and 2001 in this assessment unit.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 162.4
 05060002 010 Scioto River (downstream Big Darby Cr. to upstream Kinnikinnick Cr.);
 excluding Scioto R. mainstem

Integrated Report Assessment Category: 5 **Priority Points:** 5
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH,LRW Sampling Year(s): 1992, 1993, 1996,
 Impairment: Yes 1997

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	4 Sites	3 Sites						
5-20 mi ²	7 Sites	4 Sites	63.1	30.7	6.2			
20-50 mi ²	5 Sites	3 Sites						
						63	31	6
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Unknown Toxicity
 Priority Organics
 Metals
 Unionized Ammonia
 Siltation
 Organic Enrichment/DO
 Other Habitat Alterations

High Magnitude Sources

Major Industrial Point Source
 Municipal Point Sources
 Package Plants (Small Flows)
 Nonirrigated Crop Production
 Onsite Wastewater Systems (Septic Tanks)
 Channelization- Ag
 Channelization- Development
 Streambank Destabilization- Ag

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 146.7
05060002 020 Deer Creek (headwaters to upstream Sugar Run)

Integrated Report Assessment Category: 5 **Priority Points:** 2
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1997
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	0 Sites						
5-20 mi ²	6 Sites	4 Sites	83.3	0.0	16.7			
20-50 mi ²	5 Sites	5 Sites						
<hr/>						92	0	8
Large (Linear)								
50-500 mi ²	16.1 Miles	16.1 Miles	100.0	0.0	0.0			

High Magnitude Causes

Cause Unknown
Unionized Ammonia
Nutrients
Pathogens

High Magnitude Sources

Major Municipal Point Source
Package Plants (Small Flows)
Aquaculture
Urban Runoff/Storm Sewers (NPS)
Channelization - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 163.1
05060002 030 Deer Creek (upstream Sugar Run to upstream Dry Run)

Integrated Report Assessment Category: 5 **Priority Points:** 4
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1997
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	0 Sites						
5-20 mi ²	1 Sites	1 Sites	100.0	0.0	0.0			
20-50 mi ²	1 Sites	1 Sites						
<hr/>						77	23	0
Large (Linear)								
50-500 mi ²	18.9 Miles	10.1 Miles	53.4	46.6	0.0			

High Magnitude Causes

Cause Unknown
Nutrients
Flow Alteration

High Magnitude Sources

Nonirrigated Crop Production
Upstream Impoundment
Flow Reg./Mod. - Development
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 102.1
05060002 040 Deer Creek (upstream Dry Run to mouth)

Integrated Report Assessment Category: 5 **Priority Points:** 4
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1997
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	1 Sites	1 Sites	50.0	50.0	0.0			
20-50 mi ²	1 Sites	0 Sites						
<hr/>						75	25	0
Large (Linear)								
50-500 mi ²	16.9 Miles	16.9 Miles	100.0	0.0	0.0			

High Magnitude Causes
Organic Enrichment/DO

High Magnitude Sources
Municipal Point Source

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 129.1
05060002 060 Scioto River (downstream Paint Creek to upstream Salt Creek); excluding
 Scioto R. mainstem

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 174.6
05060002 070 Salt Creek (headwaters to upstream Queer Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 4
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

Siltation

High Magnitude Sources

Streambank Destabilization-Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: No Pollutant (Waterbody):

Comments

Biological and water quality data collected in 1992 were used in the 2002 Integrated Report which resulted in a Category 5 (impaired) listing for the aquatic life beneficial use. These data have since exceeded the ten-year threshold and are now considered historical. However, while reflecting the current status that no data are available to assess beneficial use status, the assessment unit will remain Category 5 until TMDLs for all beneficial use impairments are completed and approved by the USEPA.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 109.0
05060002 080 Middle Fork Salt Creek

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Only biological reference sites have been sampled since the late 1980's.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 138.5
05060002 090 Little Salt Creek (excluding Middle Fork)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 104.8**
 05060002 120 Scioto River (downstream Pee Pee Creek to upstream Sunfish Creek);
 excluding Scioto R. mainstem

Integrated Report Assessment Category: 5 **Priority Points: 4**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1993, 1997
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	4 Sites	1 Sites						
5-20 mi ²	1 Sites	1 Sites	62.5	12.5	25.0			
20-50 mi ²	Sites	Sites						
<hr/>						49	38	13
Large (Linear)								
50-500 mi ²	6.1 Miles	2.2 Miles	36.1	63.9	0.0			

High Magnitude Causes
 Cause Unknown
 Metals
 Siltation
 Flow Alteration
 Low Nutrients

High Magnitude Sources
 Major Industrial Point Source
 Highway/ Road/ Bridge/ Sewer Line
 Natural
 Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 144.4
05060002 130 Sunfish Creek

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment. One biological reference site was sampled on Sunfish Creek, as well as one additional site near the mouth.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 113.0
05060002 140 South Fork Scioto Brush Creek

Integrated Report Assessment Category: 5 **Priority Points:** 3
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: EWH Sampling Year(s): 1997, 2001, 2002
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	18 Sites	9 Sites						
5-20 mi ²	6 Sites	4 Sites	58.4	8.3	33.3			
20-50 mi ²	Sites	Sites						
						59	8	33
Large (Linear)								
50-500 mi ²	1.6 Miles	0.0 Miles	0.0	0.0	0.0			

High Magnitude Causes

Cause Unknown
Flow Alteration
Nutrients

High Magnitude Sources

Channization - Agriculture
Pasture Land
Upstream Impoundment
Natural
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Many previously unassessed streams in this watershed were sampled by ODNR Division of Wildlife in 2001 and 2002. Data were used as a supplement to Ohio EPA data in determining aquatic life use attainment status. All streams within this assessment unit are designated Exceptional Warmwater Habitat. The assessment unit score was adjusted to reflect true conditions within the watershed. Many of the small tributaries scored exceptionally high IBI scores. One site greater than 50 square miles was assessed, and it achieved "partial attainment". Since it was determined to be uncharacteristic of the overall assessment unit condition, this one site was excluded from the watershed score calculation.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 160.2
05060002 150 Scioto Brush Creek (excluding South Fork)

Integrated Report Assessment Category: 5 **Priority Points:** 3
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: EWH Sampling Year(s): 1994, 1997, 2001, 2002
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	16 Sites	8 Sites						
5-20 mi ²	9 Sites	6 Sites	58.3	0.0	41.7			
20-50 mi ²	Sites	Sites						
<hr/>						79	0	21
Large (Linear)								
50-500 mi ²	3.6 Miles	3.6 Miles	100.0	0.0	0.0			

High Magnitude Causes

Cause Unknown
Flow Alteration

High Magnitude Sources

Natural
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Many previously unassessed streams in this watershed were sampled by ODNR Division of Wildlife in 2001 and 2002. Data were used as a supplement to Ohio EPA data in determining aquatic life use attainment status.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 119.3**
 05060003 010 Paint Creek (headwaters to downstream East Fork)

Integrated Report Assessment Category: 5 **Priority Points: 3**
Next Scheduled Monitoring: 2006

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1997
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	1 Sites	1 Sites	70.0	0.0	30.0			
20-50 mi ²	5 Sites	2 Sites						
<hr/>						61	24	15
Large (Linear)								
50-500 mi ²	7.6 Miles	3.9 Miles	51.6	48.4	0.0			

High Magnitude Causes

Nutrients
 Siltation
 Other Habitat Alterations

High Magnitude Sources

Combined Sewer Overflows
 Nonirrigated Crop Production
 Urban Runoff/Storm Sewers (NPS)
 Channelization - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: No Pollutant (Waterbody):

Comments

A Watershed Management Plan prepared by a CWA Section 319 funded Watershed Coordinator under the direction of the Paint Creek watershed SWCDs (Ross, Fayette, Highland, Greene, Madison, and Clinton) is currently under development. Monitoring in support of the project was conducted in the upper Paint Creek watershed by the Ohio EPA in 1997.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 81.5
05060003 020 Sugar Creek

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2006

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1997, 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites	0.0	25.0	75.0			
20-50 mi ²	4 Sites	0 Sites						
<hr/>						0	62	38
Large (Linear)								
50-500 mi ²	14.9 Miles	0.0 Miles	0.0	100.0	0.0			

High Magnitude Causes

Cause Unknown
Nutrients
Other Habitat Alterations

High Magnitude Sources

Minor Municipal Point Source
Channelization - Agriculture
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A Watershed Management Plan prepared by a CWA Section 319 funded Watershed Coordinator under the direction of the Paint Creek watershed SWCDs (Ross, Fayette, Highland, Greene, Madison, and Clinton) is currently under development. Monitoring in support of the project was conducted in the upper Paint Creek watershed by the Ohio EPA in 1997.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 130.6
05060003 030 Rattlesnake Creek (headwaters to upstream Lees Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2006

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1997
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	2 Sites	1 Sites	25.0	35.0	40.0			
20-50 mi ²	5 Sites	0 Sites						
<hr/>						13	42	45
Large (Linear)								
50-500 mi ²	17.4 Miles	0.0 Miles	0.0	49.6	50.4			

High Magnitude Causes

Nutrients
Organic Enrichment/DO
Other Habitat Alterations

High Magnitude Sources

Minor Municipal Point Source
Channelization - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A Watershed Management Plan prepared by a CWA Section 319 funded Watershed Coordinator under the direction of the Paint Creek watershed SWCDs (Ross, Fayette, Highland, Greene, Madison, and Clinton) is currently under development. Monitoring in support of the project was conducted in the upper Paint Creek watershed by the Ohio EPA in 1997.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 148.3**
 05060003 040 Rattlesnake Creek (upstream Lees Creek to mouth)

Integrated Report Assessment Category: 2 **Priority Points:**
Next Scheduled Monitoring: 2006

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1996, 1997
 Impairment: No

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	1 Sites						
5-20 mi ²	1 Sites	1 Sites	100.0	0.0	0.0			
20-50 mi ²	2 Sites	2 Sites						
<hr/>						100	0	0
Large (Linear)								
50-500 mi ²	13.0 Miles	13.0 Miles	100.0	0.0	0.0			

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

A Watershed Management Plan prepared by a CWA Section 319 funded Watershed Coordinator under the direction of the Paint Creek watershed SWCDs (Ross, Fayette, Highland, Greene, Madison, and Clinton) is currently under development. Monitoring in support of the project was conducted in the upper Paint Creek watershed by the Ohio EPA in 1997.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 144.0
05060003 060 Rocky Fork Paint Creek

Integrated Report Assessment Category: 5 **Priority Points:** 3
Next Scheduled Monitoring: 2006

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1997
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	0 Sites						
5-20 mi ²	Sites	Sites	66.7	33.3	0.0			
20-50 mi ²	6 Sites	4 Sites						
<hr/>						63	16	21
Large (Linear)								
50-500 mi ²	9.0 Miles	5.3 Miles	58.7	0.0	41.3			

High Magnitude Causes

Cause Unknown
Organic Enrichment/DO
Other Habitat Alterations

High Magnitude Sources

Upstream Impoundment
Streambank Destabilization- Ag
Natural
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 400
No. Ambient Sites: 4 No. Ambient Sampling Records: 17 75th %ile: 595
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 78 90th %ile: 1298
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A Watershed Management Plan prepared by a CWA Section 319 funded Watershed Coordinator under the direction of the Paint Creek watershed SWCDs (Ross, Fayette, Highland, Greene, Madison, and Clinton) is currently under development. Monitoring in support of the project was conducted in the upper Paint Creek watershed by the Ohio EPA in 1997.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 120.5
05060003 080 North Fork Paint Creek (headwaters to downstream Compton Creek)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2006

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A Watershed Management Plan prepared by a CWA Section 319 funded Watershed Coordinator under the direction of the Paint Creek watershed SWCDs (Ross, Fayette, Highland, Greene, Madison, and Clinton) is currently under development. Monitoring in support of the project was conducted in the upper Paint Creek watershed by the Ohio EPA in 1997.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 114.0
05060003 090 North Fork Paint Creek (downstream Compton Creek to mouth)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2006

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A Watershed Management Plan prepared by a CWA Section 319 funded Watershed Coordinator under the direction of the Paint Creek watershed SWCDs (Ross, Fayette, Highland, Greene, Madison, and Clinton) is currently under development. Monitoring in support of the project was conducted in the upper Paint Creek watershed by the Ohio EPA in 1997.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 67.3
 05060003 100 Paint Creek (downstream Lower Twin Creek to mouth); excluding North
 Fork and Paint Creek mainstem

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2006

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

A Watershed Management Plan prepared by a CWA Section 319 funded Watershed Coordinator under the direction of the Paint Creek watershed SWCDs (Ross, Fayette, Highland, Greene, Madison, and Clinton) is currently under development. Monitoring in support of the project was conducted in the upper Paint Creek watershed by the Ohio EPA in 1997.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 100.0
05080001 010 Great Miami River (headwaters to upstream Cherokee Mans Run)

Integrated Report Assessment Category: 5 **Priority Points: 4**
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1994, 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	3 Sites	2 Sites						
5-20 mi ²	9 Sites	4 Sites	77.8	5.6	16.6			
20-50 mi ²	1 Sites	1 Sites						
<hr/>						39	53	8
Large (Linear)								
50-500 mi ²	1.0 Miles	0.0 Miles	0.0	100.0	0.0			

High Magnitude Causes

Other Habitat Alterations

High Magnitude Sources

Removal of Riparian Vegetation - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Great Miami River)

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 88.5
05080001 020 Muchinippi Creek

Integrated Report Assessment Category: 5 **Priority Points:** 8
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C Sampling Year(s): 1994,1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	1 Sites						
5-20 mi ²	2 Sites	2 Sites	100.0	0.0	0.0			
20-50 mi ²	1 Sites	1 Sites						
<hr/>						50	50	0
Large (Linear)								
50-500 mi ²	4.8 Miles	0.0 Miles	0.0	100.0	0.0			

High Magnitude Causes

Siltation
Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
Channelization - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 297
No. Ambient Sites: 1 No. Ambient Sampling Records: 4 75th %ile: 1800
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 21 90th %ile: 5960
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 145.6**
 05080001 040 Great Miami River (downstream Bokengehalas Creek to downstream Plum Creek)

Integrated Report Assessment Category: 5 **Priority Points: 5**
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1994
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	2 Sites	2 Sites	100.0	0.0	0.0			
20-50 mi ²	Sites	Sites						
<hr/>						98	2	0
Large (Linear)								
50-500 mi ²	15.2 Miles	14.6 Miles	96.0	4.0	0.0			

High Magnitude Causes

Flow Alteration

High Magnitude Sources

Upstream Impoundment
 Flow Reg./Mod. - Development

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Great Miami River)

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 147.4**
 05080001 050 Loramie Creek (headwaters to downstream Mile Creek)

Integrated Report Assessment Category: 5 **Priority Points: 5**
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C Sampling Year(s): 1994, 1999
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	0 Sites						
5-20 mi ²	2 Sites	0 Sites	0.0	0.0	100.0			
20-50 mi ²	1 Sites	0 Sites						
<hr/>						0	17	83
Large (Linear)								
50-500 mi ²	3.0 Miles	0.0 Miles	0.0	33.3	66.7			

High Magnitude Causes

Siltation
 Flow Alteration
 Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
 Channelization - Agriculture
 Flow Reg./Mod. - Agriculture
 Removal of Riparian Vegetation - Ag.
 Streambank Destabilization - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 510
 No. Ambient Sites: 2 No. Ambient Sampling Records: 5 75th %ile: 1590
 No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 174 90th %ile: 3392
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 117.6**
05080001 060 Loramie Creek (downstream Mile Creek to mouth)

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2008

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C Sampling Year(s): 1994, 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	0 Sites						
5-20 mi ²	1 Sites	0 Sites	0.0	0.0	100.0			
20-50 mi ²	Sites	Sites						
<hr/>						11	9	80
Large (Linear)								
50-500 mi ²	19.5 Miles	4.1 Miles	21.0	17.4	61.6			

High Magnitude Causes

Siltation
Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
Channelization - Agriculture
Streambank Destabilization - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 115.0**
 05080001 090 Stillwater River (headwaters to upstream Swamp Creek)

Integrated Report Assessment Category: 5 **Priority Points: 3**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH,MWH-C Sampling Year(s): 1999
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	14 Sites	5 Sites						
5-20 mi ²	11 Sites	5 Sites	56.1	9.1	34.8			
20-50 mi ²	3 Sites	2 Sites						
<hr/>						63	14	23
Large (Linear)								
50-500 mi ²	21.8 Miles	15.1 Miles	69.3	18.4	12.3			

High Magnitude Causes

Nutrients
 Organic Enrichment/DO
 Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
 Confined Animal Feeding Oper. (NPS)
 Onsite Wastewater Systems (Septic Tanks)
 Channelization - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: No Geometric Mean: 402
 No. Ambient Sites: 20 No. Ambient Sampling Records: 42 75th %ile: 750
 No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 19 90th %ile: 1800
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: No Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing beneficial uses is in preparation for the Stillwater River basin. Monitoring in support of the TMDL was conducted in 1999.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 121.4**
 05080001 100 Stillwater River (upstream Swamp Creek to upstream Greenville Creek)

Integrated Report Assessment Category: 5 **Priority Points: 8**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH,MWH-C Sampling Year(s): 1999
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	8 Sites	3 Sites						
5-20 mi ²	13 Sites	5 Sites	19.3	52.5	28.2			
20-50 mi ²	3 Sites	0 Sites						
<hr/>						41	40	19
Large (Linear)								
50-500 mi ²	27.3 Miles	17.3 Miles	63.4	27.5	9.1			

High Magnitude Causes

Other Inorganics
 Nutrients
 Siltation
 Organic Enrichment/DO
 Other Habitat Alterations

High Magnitude Sources

Combined Sewer Overflows
 Nonirrigated Crop Productions
 Confined Animals Feeding Oper. (NPS)
 Septage Disposal
 Channelization - Agriculture
 Spills

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 761
 No. Ambient Sites: 26 No. Ambient Sampling Records: 48 75th %ile: 2150
 No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 46 90th %ile: 7101
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: No Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing beneficial uses is in preparation for the Stillwater River basin. Monitoring in support of the TMDL was conducted in 1999.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 70.1
05080001 110 Greenville Creek (headwaters to downstream West Branch)

Integrated Report Assessment Category: 5 **Priority Points:** 6
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	0 Sites						
5-20 mi ²	8 Sites	6 Sites	87.5	6.3	6.2			
20-50 mi ²	2 Sites	2 Sites						
<hr/>						94	3	3
Large (Linear)								
50-500 mi ²	16.2 Miles	16.2 Miles	100.0	0.0	0.0			

High Magnitude Causes

Organic Enrichment/DO
Other Habitat Alterations

High Magnitude Sources

Channelization - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 372
No. Ambient Sites: 9 No. Ambient Sampling Records: 16 75th %ile: 1134
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 22 90th %ile: 1930
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: No Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing beneficial uses is in preparation for the Stillwater River basin. Monitoring in support of the TMDL was conducted in 1999.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 97.6
05080001 120 Greenville Creek (downstream West Branch to mouth)

Integrated Report Assessment Category: 5 **Priority Points:** 8
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	8 Sites	5 Sites						
5-20 mi ²	8 Sites	8 Sites	100.0	0.0	0.0			
20-50 mi ²	2 Sites	2 Sites						
<hr/>						75	18	7
Large (Linear)								
50-500 mi ²	24.3 Miles	12.1 Miles	49.8	35.8	14.4			

High Magnitude Causes

Organic Enrichment/DO

High Magnitude Sources

Major Municipal Point Source
Onsite Wastewater System (Septic Tanks)
Channelization - Development

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 632
No. Ambient Sites: 27 No. Ambient Sampling Records: 51 75th %ile: 1200
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 67 90th %ile: 2300
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: No Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing beneficial uses is in preparation for the Stillwater River basin. Monitoring in support of the TMDL was conducted in 1999.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 134.7
05080001 150 Mad River (headwaters to downstream Kings Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 5
Next Scheduled Monitoring: 2003

Aquatic Life Use Assessment

Subcategories of ALU: CWH Sampling Year(s): 1994
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	2 Sites						
5-20 mi ²	8 Sites	6 Sites	43.8	53.1	3.1			
20-50 mi ²	4 Sites	0 Sites						
						22	35	43
Large (Linear)								
50-500 mi ²	7.9 Miles	0.0 Miles	0.0	16.5	83.5			

High Magnitude Causes

Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Channelization - Agriculture
Habitat Modifications o/than hydromod.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 451
No. Ambient Sites: 5 No. Ambient Sampling Records: 25 75th %ile: 1025
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 30 90th %ile: 2460
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway in the Mad River watershed. Monitoring in support of TMDL development was conducted in 2003.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 153.5**
05080001 160 Mad River (downstream Kings Creek to downstream Chapman Creek)

Integrated Report Assessment Category: 5 **Priority Points: 9**
Next Scheduled Monitoring: 2003

Aquatic Life Use Assessment

Subcategories of ALU: CWH,WWH Sampling Year(s): 1994, 2000
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	3 Sites	3 Sites						
5-20 mi ²	5 Sites	2 Sites	90.0	5.0	5.0			
20-50 mi ²	3 Sites	3 Sites						
<hr/>						45	53	3
Large (Linear)								
50-500 mi ²	11.2 Miles	0.0 Miles	0.0	100.0	0.0			

High Magnitude Causes

Organic Enrichment/DO
Other Habitat Alterations

High Magnitude Sources

Minor Municipal Point Source
Channelization - Agriculture
Habitat Modifications o/than Hydromod.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 209
No. Ambient Sites: 11 No. Ambient Sampling Records: 52 75th %ile: 968
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 70 90th %ile: 2690
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Mad River)

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway in the Mad River watershed. Monitoring in support of TMDL development was conducted in 2003.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 140.6
05080001 170 Buck Creek

Integrated Report Assessment Category: 5 **Priority Points:** 8
Next Scheduled Monitoring: 2003

Aquatic Life Use Assessment

Subcategories of ALU: CWH,WWH Sampling Year(s): 1994
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites	100.0	0.0	0.0			
20-50 mi ²	1 Sites	1 Sites						
<hr/>						91	9	0
Large (Linear)								
50-500 mi ²	7.0 Miles	5.8 Miles	82.9	17.1	0.0			

High Magnitude Causes

Other Habitat Alterations

High Magnitude Sources

Channelization - Development

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 591
No. Ambient Sites: 3 No. Ambient Sampling Records: 15 75th %ile: 3850
No. of NPDES MOR Sites: 0 No. of NPDES MOR Records: 0 90th %ile: 17880
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway in the Mad River watershed. Monitoring in support of TMDL development was conducted in 2003.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 128.2**
 05080001 180 Mad River (downstream Chapman Creek to upstream Mud Creek);
 excluding Buck Cr. and Mad R. mainstem

Integrated Report Assessment Category: 5 **Priority Points: 5**
Next Scheduled Monitoring: 2003

Aquatic Life Use Assessment

Subcategories of ALU: CWH,EWH,WWH Sampling Year(s): 1994, 2002
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	0 Sites						
5-20 mi ²	8 Sites	4 Sites	12.5	0.0	87.5			
20-50 mi ²	1 Sites	0 Sites						
<hr/>						6	36	58
Large (Linear)								
50-500 mi ²	14.2 Miles	0.0 Miles	0.0	72.5	27.5			

High Magnitude Causes

Siltation
 Organic Enrichment/DO
 Flow Alteration
 Other Habitat Alterations

High Magnitude Sources

Combined Sewer Overflow
 Channelization - Agriculture
 Habitat Modifications o/than hydromod.
 Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 676
 No. Ambient Sites: 10 No. Ambient Sampling Records: 77 75th %ile: 1500
 No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 12 90th %ile: 7360
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: No Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway in the Mad River watershed. Monitoring in support of TMDL development was conducted in 2003.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 100.4
05080001 190 Mad River (upstream Mud Creek to mouth); excluding Mad R. mainstem

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2003

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Eastwood Lake)

Comments

Development of TMDLs for pollutants impairing beneficial uses is underway in the Mad River watershed. Monitoring in support of TMDL development was conducted in 2003. Additional impairment in the assessment unit is due to fish consumption issues in Eastwood Lake.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 143.7**
 05080002 010 Great Miami River (downstream Mad River to upstream Bear Creek);
 excluding GMR mainstem

Integrated Report Assessment Category: 5 **Priority Points: 4**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s): 1995, 1997, 2001
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	3 Sites	1 Sites						
5-20 mi ²	4 Sites	2 Sites	20.8	39.6	39.6			
20-50 mi ²	2 Sites	0 Sites						
<hr/>						41	35	24
Large (Linear)								
50-500 mi ²	5.3 Miles	3.2 Miles	61.3	31.1	7.6			

High Magnitude Causes

Pesticides
 Priority Organics
 Other Inorganics
 Nutrients
 Siltation
 Flow Alteration
 Other Habitat Alterations
 Oil and Grease

High Magnitude Sources

Major Industrial Point Source
 Municipal Point Source
 Highway/Roads/Bridge/Sewer Line
 Urban Runoff/Storm Sewers (NPS)
 Highway Maintenance and Runoff
 Contaminated Sediments
 Spills

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Wolf Creek)

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 140.2**
 05080002 020 Great Miami River (upstream Bear Creek to upstream Twin Creek);
 excluding GMR mainstem

Integrated Report Assessment Category: 5 **Priority Points: 4**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C Sampling Year(s): 1995
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	0 Sites						
5-20 mi ²	2 Sites	1 Sites	45.8	54.2	0.0			
20-50 mi ²	3 Sites	2 Sites						
<hr/>						46	54	0
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes
 Organic Enrichment/DO
 Flow Alteration
 Other Habitat Alterations

High Magnitude Sources
 Municipal Point Source
 Urban Runoff/Storm Sewers (NPS)
 Channelization - Agriculture
 Channelization - Development
 Removal of Riparian Vegetation - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²): 157.3**
 05080002 030 Twin Creek (headwaters to upstream Bantas Fork)

Integrated Report Assessment Category: 5 **Priority Points: 9**
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1995
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	12 Sites	6 Sites	58.3	25.0	16.7			
20-50 mi ²	6 Sites	4 Sites						
						64	28	8
Large (Linear)								
50-500 mi ²	12.0 Miles	8.4 Miles	70.0	30.0	0.0			

High Magnitude Causes

Nutrients
 Siltation
 Organic Enrichment/DO
 Natural Limits (Wetlands)

High Magnitude Sources

Municipal Point Sources
 Nonirrigated Crop Production
 Land Development/Suburbanization
 Onsite Wastewater Sysytems (Septic Tanks)
 Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 201
 No. Ambient Sites: 0 No. Ambient Sampling Records: 0 75th %ile: 820
 No. of NPDES MOR Sites: 4 No. of NPDES MOR Records: 110 90th %ile: 2287
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Twin Creek)

Comments

Chemical, physical, and biological sampling will be conducted in the assessment unit in 2004 as part of monitoring in the Twin Creek watershed to develop TMDLs for pollutants causing beneficial use impairments.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 159.0**
 05080002 040 Twin Creek (upstream Bantas Fork to mouth)

Integrated Report Assessment Category: 5 **Priority Points: 4**
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1995
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	7 Sites	7 Sites						
5-20 mi ²	7 Sites	4 Sites	89.3	10.7	0.0			
20-50 mi ²	5 Sites	5 Sites						
<hr/>						95	5	0
Large (Linear)								
50-500 mi ²	25.0 Miles	25.0 Miles	100.0	0.0	0.0			

High Magnitude Causes

Nutrients

High Magnitude Sources

Municipal Point Sources
 Nonirrigated Crop Production

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Twin Creek)

Comments

Chemical, physical, and biological sampling will be conducted in the assessment unit in 2004 as part of monitoring in the Twin Creek watershed to develop TMDLs for pollutants causing beneficial use impairments.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 137.2**
05080002 060 Sevenmile Creek

Integrated Report Assessment Category: 5 **Priority Points: 4**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 2002
Impairment: No

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	2 Sites						
5-20 mi ²	7 Sites	7 Sites	100.0	0.0	0.0			
20-50 mi ²	5 Sites	5 Sites						
<hr/>						100	0	0
Large (Linear)								
50-500 mi ²	20.7 Miles	20.7 Miles	100.0	0.0	0.0			

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 401
No. Ambient Sites: 21 No. Ambient Sampling Records: 96 75th %ile: 805
No. of NPDES MOR Sites: 4 No. of NPDES MOR Records: 131 90th %ile: 2560
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Biological and water quality monitoring was conducted in the Sevenmile Creek watershed in 2002. Full attainment of designated or recommended aquatic life uses was met at all sampling locations in Sevenmile Creek and seven tributaries (Big Cave Run, Rush Run, Paint Creek, Beasley Run, Pottenger Run, Rocky Run, and Periwinkle Run). However, an assessment of available bacteria data indicated an impairment of the Primary Contact Recreation use in the watershed which resulted in the Category 5 listing. Additional monitoring in 2004 will further address the recreation impairment.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 160.6
05080002 070 Fourmile Creek (excluding Sevenmile Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 2
Next Scheduled Monitoring: 2004

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1996, 2000
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	4 Sites	2 Sites						
5-20 mi ²	Sites	Sites	75.0	0.0	25.0			
20-50 mi ²	1 Sites	1 Sites						
<hr/>						85	3	12
Large (Linear)								
50-500 mi ²	38.2 Miles	36.2 Miles	94.8	5.2	0.0			

High Magnitude Causes

Unionized Ammonia
Organic Enrichment/DO
Flow Alteration
Suspended Solids

High Magnitude Sources

Major Industrial Point Source
Major Municipal Point Source
Nonirrigated Crop Production
Natural
Upstream Impoundment

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Chemical, physical, and biological sampling will be conducted in the assessment unit in 2004 as part of monitoring in the Fourmile Creek watershed to develop TMDLs for pollutants causing beneficial use impairments.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 71.9
05080002 080 Indian Creek

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: EWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Only biological reference sites have been sampled since 1985.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 166.2
05080002 090 Great Miami River (downstream Fourmile Creek to mouth); excluding
 Indian Creek and GMR mainstem

Integrated Report Assessment Category: 5 **Priority Points: 2**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1995, 1996, 1997,
Impairment: Yes 2000

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	4 Sites	1 Sites						
5-20 mi ²	4 Sites	1 Sites	25.0	12.5	62.5			
20-50 mi ²	Sites	Sites						
<hr/>						25	13	62
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Cause Unknown
Flow Alteration
Other Habitat Alterations

High Magnitude Sources

Land Development/Suburbanization
Urban Runoff/Storm Sewers (NPS)
Removal of Riparian Vegetation - Dev.
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Ford/Hamilton Hydraulic Canal)

Comments

Recent tributary data within this watershed is limited. Paddys Run was sampled recently, but all other tributaries (Taylor Creek basin) have data which are over 10 years old. One biological reference site on Bluerock Creek was sampled in 1996.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 70.6
05080003 070 East Fork Whitewater River

Integrated Report Assessment Category: 5 **Priority Points: 6**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH

Sampling Year(s):

Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact

Impairment: Yes

Geometric Mean: 1667

No. Ambient Sites: 1

No. Ambient Sampling Records: 3

75th %ile: 4100

No. of NPDES MOR Sites: 2

No. of NPDES MOR Records: 26

90th %ile: 7220

Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:

FCA Issued:

(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")

Impairment Due to FCA:

Pollutant (Waterbody):

Comments

This short segment in Ohio has not been sampled since 1982. Sampling at one biological reference site on Welker Lateral (headwaters of East Fork), has been attempted several times in the last few years, but has been dry. Available bacteria data indicate an impairment of the Primary Contact Recreation use in the assessment unit which resulted in the Category 5 listing.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 135.5
05090101 020 Raccoon Creek (headwaters to upstream Hewett Fork)

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH,LRW Sampling Year(s): 1995, 1996, 2000,
Impairment: Yes 2002

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	8 Sites	1 Sites						
5-20 mi ²	5 Sites	1 Sites	8.1	27.9	64.0			
20-50 mi ²	3 Sites	0 Sites						
<hr/>						28	40	32
Large (Linear)								
50-500 mi ²	22.4 Miles	10.5 Miles	46.9	53.1	0.0			

High Magnitude Causes

- Metals
- Zinc
- Iron
- Aluminum
- Other Metal
- pH
- Siltation
- Other Habitat Alterations

High Magnitude Sources

- Nonirrigated Crop Production
- Surface Mining
- Acid Mine Drainage
- Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

TMDLs to address the aquatic life use impairment were approved by the U.S. EPA on March 20, 2003. Monitoring in support of TMDL development was conducted in 1995, 1996, and 2000. Supplemental data used in the 2004 assessment cycle were collected by the Center for Applied Bioassessment & Criteria (CABB) in 2002. The TMDL report is available at <http://www.epa.state.oh.us/dsw/tmdl/index.html>. A watershed action plan for this assessment unit has been endorsed by the Ohio EPA and Ohio DNR.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 155.0
05090101 030 Raccoon Creek (upstream Hewett Fork to downstream Elk Fork)

Integrated Report Assessment Category: 5 **Priority Points:** 4
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s): 1995, 2000, 2002
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	25 Sites	9 Sites						
5-20 mi ²	12 Sites	4 Sites	29.8	51.9	18.3			
20-50 mi ²	4 Sites	1 Sites						
						41	50	9
Large (Linear)								
50-500 mi ²	25.9 Miles	13.7 Miles	52.9	47.1	0.0			

High Magnitude Causes

Cause Unknown Salinity /TDS/ Chlorides
Metals Oil and Grease
Zinc
Iron
Other Metals
Nutrients
pH
Siltation

High Magnitude Sources

Minor Industrial Point Source
Surface Mining
Subsurface Mining
Petroleum Activities
Acid Mine Drainage
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

TMDLs to address the aquatic life use impairment were approved by the U.S. EPA on March 20, 2003. Monitoring in support of TMDL development was conducted in 1995, 1996, and 2000. Supplemental data used in the 2004 assessment cycle were collected by the Center for Applied Bioassessment & Criteria (CABB) in 2002. The TMDL report is available at <http://www.epa.state.oh.us/dsw/tmdl/index.html>. A watershed action plan for this assessment unit has been endorsed by the Ohio EPA and Ohio DNR.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 95.0
05090101 040 Raccoon Creek (downstream Elk Fork to upstream Little Raccoon Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 2
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH,LRW Sampling Year(s): 1995, 1998, 2002
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	15 Sites	5 Sites						
5-20 mi ²	6 Sites	2 Sites	33.3	18.4	48.3			
20-50 mi ²	Sites	Sites						
<hr/>						27	49	24
Large (Linear)								
50-500 mi ²	28.8 Miles	5.9 Miles	20.5	79.5	0.0			

High Magnitude Causes

Metals
Zinc
Iron
Other Metals
pH
Siltation
Flow Alteration
Natural Limits (Wetlands)

High Magnitude Sources

Nonirrigated Crop Production
Mining
Acid Mine Drainage
Natural
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

TMDLs for pollutants impairing beneficial uses are in progress for this Raccoon Creek basin assessment unit. Monitoring in support of the TMDL was conducted in 1995 and 2000. Supplemental data used in the 2004 Integrated Report were collected by Center for Applied Bioassessment & Criteria (CABB) in 2002. A watershed action plan for this assessment unit has been endorsed by the Ohio EPA and Ohio DNR.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 154.6
05090101 050 Little Raccoon Creek

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH,LRW Sampling Year(s): 1995, 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	8 Sites	0 Sites						
5-20 mi ²	4 Sites	0 Sites	0.0	6.3	93.7			
20-50 mi ²	Sites	Sites						
<hr/>						0	53	47
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Metals Organic Enrichment/ DO
Nickel Salinity/TDS/Chlorides
Iron Thermal Modifications
Aluminum Other Habitat Alterations
Other Metals
Nutrients
pH
Siltation

High Magnitude Sources

Minor Industrial Point Source Source Unknown
Major Municipal Point Source
Nonirrigated Crop Production
Pasture Land
Confined Animal Feeding Operations (NPS)
Mine Tailings
Acid Mine Drainage
Removal of Riparian Vegetation - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A watershed action plan for this assessment unit has been endorsed by the Ohio EPA and Ohio DNR.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²): 140.8**
 05090101 060 Raccoon Creek (downstream Little Raccoon Creek to mouth); excluding
 Raccoon Creek mainstem

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1999
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	4 Sites	1 Sites						
5-20 mi ²	6 Sites	3 Sites	37.5	8.3	54.2			
20-50 mi ²	Sites	Sites						
<hr/>						38	8	54
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Cause Unknown
 Metals
 Nutrients
 Flow Alteration

High Magnitude Sources

Minor Industrial Point Source
 Nonirrigated Crop Production
 Animal Holding/Management Areas
 Natural
 Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

A watershed action plan for this assessment unit has been endorsed by the Ohio EPA and Ohio DNR.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 139.0
05090101 070 Ohio River tributaries (downstream Raccoon Creek to upstream Symmes
Creek)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 119.1
05090101 080 Symmes Creek (headwaters to downstream Black Fork)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment. Very little data have been collected throughout the Symmes Creek watershed.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 100.3
05090101 090 Symmes Creek (downstream Black Fork to downstream Buffalo Creek)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 151.5
 05090101 100 Symmes Creek (downstream Buffalo Creek to mouth); Ohio River
 tributaries (Symmes Cr. to Big Sandy R)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: No Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 130.4
05090103 010 Ohio River tributaries (downstream Big Sandy River [WV] to upstream Pine Creek)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW,LWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 184.2
05090103 020 Pine Creek

Integrated Report Assessment Category: 5 **Priority Points:** 3
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1996, 1997
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	6 Sites	4 Sites						
5-20 mi ²	1 Sites	0 Sites	36.6	20.0	43.4			
20-50 mi ²	5 Sites	2 Sites						
<hr/>						68	10	22
Large (Linear)								
50-500 mi ²	4.0 Miles	4.0 Miles	100.0	0.0	0.0			

High Magnitude Causes

Metals
pH
Siltation
Salinity/TDS/Chlorides

High Magnitude Sources

Surface Mining
Mine Tailings
Acid Mine Drainage

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Most of the data are from the upper portion of the watershed.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 107.8
05090103 030 Little Scioto River (headwaters to upstream Rocky Fork)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 152.2**
 05090103 040 Little Scioto River (upst. Rocky Fork to mouth); Ohio R. tribs. (dst Pine Cr.
 to dst 8-digit divide)

Integrated Report Assessment Category: 5 **Priority Points: 4**
Next Scheduled Monitoring: 2009

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
 Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 260
 No. Ambient Sites: 0 No. Ambient Sampling Records: 0 75th %ile: 1115
 No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 19 90th %ile: 1592
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: No Pollutant (Waterbody):

Comments

No recent biological community and water quality data were available for this assessment unit to determine status of beneficial uses. As such, this assessment unit was listed as Category 3 (unassessed) in the 2002 Integrated Report. However, the 2004 Integrated Report assessment of available bacteria data indicated an impairment of the Primary Contact Recreation use in the assessment unit which resulted in the Category 5 listing.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 136.9
05090201 010 Ohio River tributaries (downstream 8-digit divide to upstream Ohio Brush
Creek)

Integrated Report Assessment Category: 4B **Priority Points:**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: CWH,EWH,WWH Sampling Year(s): 1997, 1999, 2000
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	5 Sites	5 Sites	75.0	25.0	0.0			
20-50 mi ²	2 Sites	1 Sites						
						75	25	0
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes High Magnitude Sources
Siltation Land Development/Suburbanization

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Aquatic life use impairment in this watershed was restricted to one sampling location in Turkey Creek, related to siltation from a temporary construction project in 1999. Sampling one year after the event (2000) revealed fish IBI scores exceeding the ecoregional biocriterion but Mlwb scores falling just below expectations. Because the impact was of a transient nature and total recovery and full aquatic life use attainment in Turkey Creek were anticipated, the assessment unit was listed as Category 4B in the 2004 Integrated Report. The watershed is next scheduled for extensive monitoring in 2011.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 130.0
05090201 030 Ohio Brush Creek (headwaters to downstream Baker Fork)

Integrated Report Assessment Category: 5 **Priority Points: 3**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1997, 2001
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	2 Sites	2 Sites	87.5	12.5	0.0			
20-50 mi ²	4 Sites	3 Sites						
						88	12	0
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes High Magnitude Sources
Nutrients Nonirrigated Crop Production

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Only biological reference sites have been sampled since 1987.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 134.1**
05090201 040 West Fork Ohio Brush Creek

Integrated Report Assessment Category: 5 **Priority Points: 6**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 2001
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	5 Sites	4 Sites	90.0	0.0	10.0			
20-50 mi ²	3 Sites	3 Sites						
						95	0	5
Large (Linear)								
50-500 mi ²	9.0 Miles	9.0 Miles	100.0	0.0	0.0			

High Magnitude Causes

Cause Unknown
Flow Alteration

High Magnitude Sources

Natural
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 652
No. Ambient Sites: 2 No. Ambient Sampling Records: 7 75th %ile: 2100
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 19 90th %ile: 5350
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Only biological reference sites have been sampled since 1987. Some nonattainment is due to natural low flow conditions.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 170.7**
 05090201 050 Ohio Brush Creek (downstream Baker Fork to mouth);excluding West Fork)

Integrated Report Assessment Category: 5 **Priority Points: 2**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1997, 2001
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	3 Sites	2 Sites						
5-20 mi ²	9 Sites	6 Sites	66.7	0.0	33.3			
20-50 mi ²	Sites	Sites						
<hr/>						83	0	17
Large (Linear)								
50-500 mi ²	23.8 Miles	23.8 Miles	100.0	0.0	0.0			

High Magnitude Causes

Cause Unknown
 Organic Enrichment/DO
 Flow Alteration

High Magnitude Sources

Onsite Wastewater Systems (Septic Tanks)
 Natural
 Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: No Geometric Mean: 202
 No. Ambient Sites: 4 No. Ambient Sampling Records: 13 75th %ile: 421
 No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 104 90th %ile: 943
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Only biological reference sites have been sampled since 1987.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 67.9
05090201 060 Ohio River tributaries (downstream Ohio Brush Creek to upstream Eagle Creek)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1997, 2001
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

An error in the assessment of available data resulted in this assessment unit being listed as Category 5 in the 2002 Integrated Report. Based on a reevaluation of available data, it was determined that not enough data were present to do an assessment which resulted in the Category 3 listing.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 151.7**
05090201 070 Eagle Creek

Integrated Report Assessment Category: 5 **Priority Points: 3**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1997
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	2 Sites						
5-20 mi ²	Sites	Sites	100.0	0.0	0.0			
20-50 mi ²	1 Sites	1 Sites						
<hr/>						88	12	0
Large (Linear)								
50-500 mi ²	12.5 Miles	9.5 Miles	75.9	24.1	0.0			

High Magnitude Causes

Cause Unknown
Nutrients

High Magnitude Sources

Nonirrigated Crop Production
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 93.6
05090201 080 Ohio River tributaries (downstream Eagle Creek to upstream Whiteoak
Creek)

Integrated Report Assessment Category: 5 **Priority Points: 2**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1997
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	2 Sites	0 Sites	0.0	50.0	50.0			
20-50 mi ²	1 Sites	0 Sites						
<hr/>						0	75	25
Large (Linear)								
50-500 mi ²	2.0 Miles	0.0 Miles	0.0	100.0	0.0			

High Magnitude Causes

Cause Unknown
Flow Alteration

High Magnitude Sources

Land Development/Suburbanization
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 147.4**
05090201 090 East Fork Whiteoak Creek; North Fork Whiteoak Creek

Integrated Report Assessment Category: 5 **Priority Points: 3**
Next Scheduled Monitoring: 2006

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1997
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	2 Sites	0 Sites	50.0	0.0	50.0			
20-50 mi ²	1 Sites	1 Sites						
						75	0	25
Large (Linear)								
50-500 mi ²	0.0 Miles	0.0 Miles	100.0	0.0	0.0			

High Magnitude Causes

Organic Enrichment/DO
Flow Alteration

High Magnitude Sources

Minor Municipal Point Source
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 87.9
05090201 100 Whiteoak Creek (North Fork/East Fork to mouth)

Integrated Report Assessment Category: 5 **Priority Points: 2**
Next Scheduled Monitoring: 2006

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH,LRW Sampling Year(s): 1997
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	4 Sites	2 Sites						
5-20 mi ²	1 Sites	0 Sites	62.5	0.0	37.5			
20-50 mi ²	1 Sites	1 Sites						
<hr/>						31	50	19
Large (Linear)								
50-500 mi ²	0.0 Miles	0.0 Miles	0.0	100.0	0.0			

High Magnitude Causes

Nutrients
Siltation
Flow Alteration

High Magnitude Sources

Minor Municipal Point Source
Nonirrigated Crop Production

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 96
No. Ambient Sites: 1 No. Ambient Sampling Records: 1 75th %ile: 378
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 50 90th %ile: 600
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 97.4
05090201 110 Ohio River tributaries (downstream Whiteoak Creek to upstream Big Indian Run)

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 108.2**
 05090201 120 Ohio River tributaries (upstream Big Indian Run to upstream Little Miami River)

Integrated Report Assessment Category: 5 **Priority Points: 3**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1997
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	4 Sites	2 Sites	75.0	13.0	12.0			
20-50 mi ²	1 Sites	1 Sites						
						75	13	12
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Data from 1997 were reevaluated. Corrected statistics indicated that the aquatic life use status should be changed from Category 2 (unimpaired), as listed in the 2002 Integrated Report, to Category 5 (impaired).

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 129.6
05090202 010 Little Miami River (headwaters to upstream Massies Creek)

Integrated Report Assessment Category: 4A **Priority Points:**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1998
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	3 Sites	1 Sites						
5-20 mi ²	8 Sites	5 Sites	74.0	9.4	16.6			
20-50 mi ²	3 Sites	3 Sites						
<hr/>						37	32	31
Large (Linear)								
50-500 mi ²	14.4 Miles	0.0 Miles	0.0	54.2	45.8			

High Magnitude Causes

Metals
Unionized Ammonia
Nutrients
Organic Enrichment/DO
Flow Alteration
Other Habitat Alterations
Pathogens

High Magnitude Sources

Minor Municipal Point Source
Nonirrigated Crop Production
Range Grazing - Riparian Manure Lagoons
Channelization - Agriculture
Removal of Riparian Vegetation - Ag.
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 327
No. Ambient Sites: 17 No. Ambient Sampling Records: 76 75th %ile: 667
No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 70 90th %ile: 1700
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: No Pollutant (Waterbody):

Comments

A report developing TMDLs for pollutants impairing beneficial uses (aquatic life) in the upper Little Miami watershed (to and including the Caesar Creek watershed) was approved by U.S. EPA on July 2, 2002. Monitoring in support of these TMDLs was conducted in 1998. The TMDL report is available at <http://www.epa.state.oh.us/dsw/tmdl/index.html>.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²): 165.5**
 05090202 020 Little Miami River (upstream Massies Creek to downstream Beaver
 Creek)

Integrated Report Assessment Category: 5 **Priority Points: 7**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1998
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	1 Sites						
5-20 mi ²	11 Sites	6 Sites	47.6	21.4	31.0			
20-50 mi ²	7 Sites	3 Sites						
						59	19	22
Large (Linear)								
50-500 mi ²	2 Sites							
	16.9 Miles	12.0 Miles	71.0	16.0	13.0			

High Magnitude Causes

Cause Unknown Oil and Grease
 Unknown Toxicity Natural Limits (Wetlands)
 Metals
 Unionized Ammonia
 Nutrients
 Siltation
 Other Habitat Alterations
 Pathogens

High Magnitude Sources

Major Industrial Point Source Spills
 Major Municipal Point Source
 Nonirrigated Crop Production
 Pasture Land
 Urban Runoff/Storm Sewers (NPS)
 Onsite Wastewater Systems (Septic Tanks)
 Channelization - Agriculture
 Channelization - Development

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 482
 No. Ambient Sites: 17 No. Ambient Sampling Records: 64 75th %ile: 1050
 No. of NPDES MOR Sites: 4 No. of NPDES MOR Records: 331 90th %ile: 3860
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: No Pollutant (Waterbody):

Comments

A report developing TMDLs for pollutants impairing beneficial uses (aquatic life) in the upper Little Miami watershed (to and including the Caesar Creek watershed) was approved by U.S. EPA on July 2, 2002. Monitoring in support of these TMDLs was conducted in 1998. The TMDL report is available at <http://www.epa.state.oh.us/dsw/tmdl/index.html>. The assessment unit remains in Category 5 due to the recreation use impairment.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 119.2
05090202 030 Little Miami River (downstream Beaver Creek to upstream Caesar Creek)

Integrated Report Assessment Category: 4A **Priority Points:**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1998
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	3 Sites	3 Sites						
5-20 mi ²	6 Sites	5 Sites	95.8	0.0	4.2			
20-50 mi ²	1 Sites	1 Sites						
<hr/>						63	35	2
Large (Linear)								
50-500 mi ²	21.8 Miles	6.4 Miles	29.4	70.6	0.0			

High Magnitude Causes

Unionized Ammonia
Chlorine
Nutrients
Organic Enrichment/DO
Flow Alteration
Suspended Solids

High Magnitude Sources

Major Municipal Point Source
Minor Municipal Point Source
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 275
No. Ambient Sites: 9 No. Ambient Sampling Records: 31 75th %ile: 548
No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 167 90th %ile: 1203
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: No Pollutant (Waterbody):

Comments

A report developing TMDLs for pollutants impairing beneficial uses (aquatic life) in the upper Little Miami watershed (to and including the Caesar Creek watershed) was approved by U.S. EPA on July 2, 2002. Monitoring in support of these TMDLs was conducted in 1998. The TMDL report is available at <http://www.epa.state.oh.us/dsw/tmdl/index.html>.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 94.8
05090202 040 Anderson Fork Caesar Creek

Integrated Report Assessment Category: 4A **Priority Points:**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1998
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	1 Sites						
5-20 mi ²	4 Sites	3 Sites	62.5	12.5	25.0			
20-50 mi ²	2 Sites	1 Sites						
						31	56	13
Large (Linear)								
50-500 mi ²	11.0 Miles	0.0 Miles	0.0	100.0	0.0			

High Magnitude Causes

Cause Unknown
Siltation

High Magnitude Sources

Nonirrigated Crop Production
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 284
No. Ambient Sites: 5 No. Ambient Sampling Records: 17 75th %ile: 488
No. of NPDES MOR Sites: 0 No. of NPDES MOR Records: 0 90th %ile: 570
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A report developing TMDLs for pollutants impairing beneficial uses (aquatic life) in the upper Little Miami watershed (to and including the Caesar Creek watershed) was approved by U.S. EPA on July 2, 2002. Monitoring in support of these TMDLs was conducted in 1998. The TMDL report is available at <http://www.epa.state.oh.us/dsw/tmdl/index.html>.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 147.9
05090202 050 Caesar Creek (excluding Anderson Fork)

Integrated Report Assessment Category: 5 **Priority Points:** 8
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1998
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	0 Sites						
5-20 mi ²	2 Sites	1 Sites	75.0	25.0	0.0			
20-50 mi ²	1 Sites	1 Sites						
<hr/>						77	17	6
Large (Linear)								
50-500 mi ²	22.6 Miles	18.0 Miles	79.7	9.2	11.1			

High Magnitude Causes

Cause Unknown
Nutrients
Siltation
Organic Enrichment/DO
Pathogens

High Magnitude Sources

Nonirrigated Crop Production
Feedlots (Confined Animal Feeding Oper.)
Land Development/Suburbanization
Onsite Wastewater Systems (Septic Tanks)
Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 437
No. Ambient Sites: 11 No. Ambient Sampling Records: 33 75th %ile: 1040
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 26 90th %ile: 2220
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A report developing TMDLs for pollutants impairing beneficial uses (aquatic life) in the upper Little Miami watershed (to and including the Caesar Creek watershed) was approved by U.S. EPA on July 2, 2002. Monitoring in support of these TMDLs was conducted in 1998. The TMDL report is available at <http://www.epa.state.oh.us/dsw/tmdl/index.html>. The assessment unit remains in Category 5 due to the recreation use impairment.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 116.8
05090202 060 Little Miami River (downstream Caesar Creek to downstream Turtle
Creek); excluding LMR mainstem

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1998
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

A small amount of data were collected in this watershed, but there are not enough sampling locations to do a complete assessment. Reference sites on Newman Run and Mill Run were sampled in 1998.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 147.0**
 05090202 070 Todd Fork (headwaters to upstream East Fork Todd Fork)

Integrated Report Assessment Category: 5 **Priority Points: 3**
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1998
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	0 Sites						
5-20 mi ²	4 Sites	1 Sites	31.3	12.5	56.2			
20-50 mi ²	4 Sites	2 Sites						
<hr/>						62	8	30
Large (Linear)								
50-500 mi ²	21.5 Miles	19.8 Miles	92.1	4.2	3.7			

High Magnitude Causes

Unknown Toxicity
 Unionized Ammonia
 Organic Enrichment/DO
 Flow Alteration
 Other Habitat Alterations

High Magnitude Sources

Major Municipal Point Source
 Minor Municipal Point Source
 Urban Runoff/Storm Sewers (NPS)
 Channelization - Development
 Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 114.6
05090202 080 Todd Fork (upstream East Fork Todd Fork to mouth)

Integrated Report Assessment Category: 4B **Priority Points:**
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1998
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)						82	18	0
50-500 mi ²	14.1 Miles	11.5 Miles	81.5	18.5	0.0			

High Magnitude Causes High Magnitude Sources
Nutrients Municipal Point Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 110.3**
 05090202 090 Little Miami River (downstream Turtle Creek to downstream O'Bannon
 Creek); excluding LMR mainstem

Integrated Report Assessment Category: 5 **Priority Points: 7**
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1993, 1998, 2002
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	3 Sites	0 Sites						
5-20 mi ²	8 Sites	3 Sites	34.4	42.7	22.9			
20-50 mi ²	2 Sites	1 Sites						
<hr/>						67	21	12
Large (Linear)								
50-500 mi ²	1.3 Miles	1.3 Miles	100.0	0.0	0.0			

High Magnitude Causes

Nutrients
 Organic Enrichment/DO
 Flow Alteration

High Magnitude Sources

Major Municipal Point Sources
 Upstream Impoundment
 Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 310
 No. Ambient Sites: 0 No. Ambient Sampling Records: 0 75th %ile: 789
 No. of NPDES MOR Sites: 4 No. of NPDES MOR Records: 233 90th %ile: 2900
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Ohio EPA conducted fish, macroinvertebrate, and water chemistry sampling on streams which had point source issues. Supplemental fish sampling was done in 2002 by ODNR Division of Wildlife on several other small streams within the assessment unit.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 140.8**
 05090202 100 East Fork Little Miami River (headwaters to upstream Solomon Run)

Integrated Report Assessment Category: 5 **Priority Points: 6**
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1998
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	0 Sites						
5-20 mi ²	3 Sites	0 Sites	16.7	58.3	25.0			
20-50 mi ²	3 Sites	1 Sites						
<hr/>						33	54	13
Large (Linear)								
50-500 mi ²	4.0 Miles	2.0 Miles	50.0	50.0	0.0			

High Magnitude Causes

Cause Unknown
 Nutrients
 Siltation

High Magnitude Sources

Nonirrigated Crop Production
 Surface Mining
 Source Unknown

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Yes Geometric Mean: 429
 No. Ambient Sites: 3 No. Ambient Sampling Records: 12 75th %ile: 1115
 No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 24 90th %ile: 4865
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: No Pollutant (Waterbody):

Comments

A watershed action plan for this assessment unit has been endorsed by the Ohio EPA and Ohio DNR. The U.S. EPA has awarded a grant to Clermont County to complete TMDLs for the East Fork Little Miami River watershed by 2006.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 123.1
 05090202 120 East Fork Little Miami River (upstream Cloverlick Creek to upstream Stonelick Creek)

Integrated Report Assessment Category: 5 **Priority Points:** 1
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1997, 1998
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	6 Sites	0 Sites						
5-20 mi ²	6 Sites	2 Sites	8.4	8.3	83.3			
20-50 mi ²	1 Sites	0 Sites						
<hr/>						12	21	67
Large (Linear)								
50-500 mi ²	11.9 Miles	1.8 Miles	15.1	33.6	51.3			

High Magnitude Causes

Nutrients
 Siltation
 Organic Enrichment/DO
 Flow Alteration
 Other Habitat Alterations

High Magnitude Sources

Municipal Point Sources
 Land Development/Suburbanization
 Urban Runoff/Storm Sewers (NPS)
 Onsite Wastewater Systems (Septic Tanks)
 Channelization - Development
 Flow Reg/Mod. - Dev.

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: No Geometric Mean: 232
 No. Ambient Sites: 1 No. Ambient Sampling Records: 4 75th %ile: 415
 No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 95 90th %ile: 914
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
 FCA Issued: Yes
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: No Pollutant (Waterbody):

Comments

A watershed action plan for this assessment unit has been endorsed by the Ohio EPA and Ohio DNR. The U.S. EPA has awarded a grant to Clermont County to complete TMDLs for the East Fork Little Miami River watershed by 2006.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 119.2
05090202 130 East Fork Little Miami River (upstream Stonelick Creek to mouth)

Integrated Report Assessment Category: 5 **Priority Points:** 6
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: EWH,WWH Sampling Year(s): 1997, 1998
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	5 Sites	1 Sites						
5-20 mi ²	6 Sites	1 Sites	9.2	72.5	18.3			
20-50 mi ²	1 Sites	0 Sites						
<hr/>						15	76	9
Large (Linear)								
50-500 mi ²	8.8 Miles	1.9 Miles	21.6	78.4	0.0			

High Magnitude Causes

Cause Unknown
Nutrients
Siltation
Organic Enrichment/DO
Flow Alteration
Other Habitat Alterations
Pathogens

High Magnitude Sources

Major Municipal Point Source Streambank Destabilization - Dev.
Combined Sewer Overflows Source Unknown
Sanitary Sewer Overflows
Nonirrigated Crop Production
Sewer Line Construction
Urban Runoff/Storm Sewer (NPS)
Dredging - Development
Dam Construction - Agriculture

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 389
No. Ambient Sites: 1 No. Ambient Sampling Records: 4 75th %ile: 900
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 90 90th %ile: 2640
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: No Pollutant (Waterbody):

Comments

A watershed action plan for this assessment unit has been endorsed by the Ohio EPA and Ohio DNR. The U.S. EPA has awarded a grant to Clermont County to complete TMDLs for the East Fork Little Miami River watershed by 2006.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 112.4**
 05090202 140 Little Miami River (downstream O'Bannon Creek to mouth); excluding
 East Fork LMR and LMR mainstem

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2007

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s): 1994, 1998, 2002
 Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	1 Sites	0 Sites						
5-20 mi ²	3 Sites	0 Sites	0.0	50.0	50.0			
20-50 mi ²	2 Sites	0 Sites						
<hr/>						0	50	50
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Unknown Toxicity
 Siltation
 Organic Enrichment/DO
 Flow Alteration
 Other Habitat Alterations

High Magnitude Sources

Minor Industrial Point Source
 Major Municipal Point Source
 Combined Sewer Overflows
 Sewer Line Construction
 Other Urban Runoff
 Dredging - Development
 Streambank Destabilization - Dev.

Recreation Use Assessment

Subcategory of Use: Primary Contact
 Impairment: Unknown Geometric Mean:
 No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
 No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
 Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
 FCA Issued:
 (See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
 Impairment Due to FCA: Pollutant (Waterbody):

Comments

Dry Run, East Branch Polk Run, and an unnamed tributary to Sycamore Creek were included on the 1998 303(d) list based on data collected in 1991. Since these data are no longer current (i.e., more than 10 years old), reassessment of current conditions is warranted. However, recognizing the continued pervasive impacts related to sewer line construction within stream channels, retaining the assessment unit in Category 5 is appropriate. Limited additional data collected in 1994 and 1998 from other Little Miami tributaries were used to supplement the assessment of this AU.

Ohio EPA 2004 Integrated Report Appendix D.2 Watershed Assessment Unit (WAU) Summaries

HUC11 **WAU Description** **WAU Size (mi²):** 164.6
05090203 010 Mill Creek

Integrated Report Assessment Category: 5 **Priority Points:** 6
Next Scheduled Monitoring: 2012

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C,LRW,LWH Sampling Year(s): 1997, 2002
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	4 Sites	2 Sites						
5-20 mi ²	5 Sites	2 Sites	22.5	0.0	77.5			
20-50 mi ²	7 Sites	0 Sites						
						11	0	89
Large (Linear)								
50-500 mi ²	16.6 Miles	0.0 Miles	0.0	0.0	100.0			

High Magnitude Causes

Cause Unknown Taste and Odor
Unknown Toxicity
Unionized Ammonia
Nutrients
Organic Enrichment/DO
Flow Alteration
Other Habitat Alterations
Oil and Grease

High Magnitude Sources

Industrial Point Sources
Major Municipal Point Source
Combined Sewer Overflow
Urban Runoff/Storm Sewers (NPS)
Channelization - Development
Streambank Destabilization - Dev.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 632
No. Ambient Sites: 15 No. Ambient Sampling Records: 88 75th %ile: 2100
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 151 90th %ile: 6100
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed: Yes
FCA Issued: Yes
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Yes Pollutant (Waterbody): PCBs (Mill Creek)

Comments

Development of TMDLs for pollutants impairing beneficial uses in the Mill Creek watershed is underway. Monitoring in support of the TMDLs was conducted in 1997. Follow-up monitoring in the upper Mill Creek watershed was conducted in 2002.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 48.6
05090203 020 Ohio River tributaries (downstream Little Miami R. to upstream Great
Miami R.); excluding Mill Creek

Integrated Report Assessment Category: 5 **Priority Points: 1**
Next Scheduled Monitoring: 2011

Aquatic Life Use Assessment

Subcategories of ALU: WWH,LRW Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Unionized Ammonia
Organic Enrichment/DO
Flow Alteration
Direct Habitat Alterations

High Magnitude Sources

Combined Sewer Overflows
Dredging - Development
Streambank Destabilization - Dev.
Natural

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: No Geometric Mean: 70
No. Ambient Sites: 0 No. Ambient Sampling Records: 0 75th %ile: 193
No. of NPDES MOR Sites: 3 No. of NPDES MOR Records: 735 90th %ile: 646
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Biological and water quality data collected in 1991 were used in the 2002 Integrated Report which resulted in a Category 5 (impaired) listing for the aquatic life beneficial use. These data have since exceeded the ten-year threshold and are now considered historical. However, while reflecting the current status that no data are available to assess beneficial use status, the assessment unit will remain Category 5 until TMDLs for all beneficial use impairments are completed and approved by the USEPA.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 0.1
05090203 050 Ohio River tributaries (downstream Great Miami River to upstream Wolper
Creek [KY])

Integrated Report Assessment Category: 3 **Priority Points:**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s):
Impairment: Unknown

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	Sites	Sites						
5-20 mi ²	Sites	Sites						
20-50 mi ²	Sites	Sites						
Large (Linear)								
50-500 mi ²	Miles	Miles						

High Magnitude Causes

High Magnitude Sources

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Unknown Geometric Mean:
No. Ambient Sites: No. Ambient Sampling Records: 75th %ile:
No. of NPDES MOR Sites: No. of NPDES MOR Records: 90th %ile:
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

This is a very small watershed within Ohio (only 39 acres).

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²): 115.9**
05120101 010 Wabash River (headwaters to upstream Beaver Creek)

Integrated Report Assessment Category: 5 **Priority Points: 8**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	5 Sites	1 Sites						
5-20 mi ²	7 Sites	1 Sites	8.6	25.0	66.4			
20-50 mi ²	2 Sites	0 Sites						
<hr/>						4	57	39
Large (Linear)								
50-500 mi ²	20.5 Miles	0.0 Miles	0.0	89.0	11.0			

High Magnitude Causes

Other Habitat Alterations

High Magnitude Sources

Minor Municipal Point Source
Nonirrigated Crop Production
Confined Animal Feeding Operations (NPS)
Channelization - Agriculture
Removal of Riparian Vegetation - Ag.
Streambank Destabilization - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 1502
No. Ambient Sites: 27 No. Ambient Sampling Records: 66 75th %ile: 8364
No. of NPDES MOR Sites: 0 No. of NPDES MOR Records: 0 90th %ile: 29000
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Development of TMDLs for pollutants impairing the WWH aquatic life use, prepared by the U.S. EPA, will begin in 2003 for the Wabash River. Monitoring in support of the TMDLs was conducted by the Ohio EPA in 1999.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 112.5
05120101 020 Beaver Creek (Grand Lake St. Marys and tributaries)

Integrated Report Assessment Category: 5 **Priority Points:** 6
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	2 Sites	0 Sites						
5-20 mi ²	11 Sites	0 Sites	0.0	27.3	72.7			
20-50 mi ²	Sites	Sites						
<hr/>						0	27	73
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
Confined Animal Feeding Operations (NPS)
Channelization - Agriculture
Removal of Riparian Vegetation - Ag.
Streambank Destabilization - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 1347
No. Ambient Sites: 10 No. Ambient Sampling Records: 23 75th %ile: 2650
No. of NPDES MOR Sites: 1 No. of NPDES MOR Records: 4 90th %ile: 5580
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Monitoring to characterize physical, chemical, and biological condition of the Beaver Creek watershed was incorporated in the Wabash River basin intensive survey conducted in 1999.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 58.6
05120101 030 Beaver Creek (downstream Grand Lake St. Marys Dam to mouth)

Integrated Report Assessment Category: 5 **Priority Points: 5**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH Sampling Year(s): 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	3 Sites	1 Sites						
5-20 mi ²	2 Sites	1 Sites	41.7	25.0	33.3			
20-50 mi ²	Sites	Sites						
<hr/>						21	12	67
Large (Linear)								
50-500 mi ²	10.6 Miles	0.0 Miles	0.0	0.0	100.0			

High Magnitude Causes

Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
Confined Animal Feeding Operations (NPS)
Channelization - Agriculture
Removal of Riparian Vegetation - Ag.
Streambank Destabilization - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 280
No. Ambient Sites: 12 No. Ambient Sampling Records: 28 75th %ile: 1000
No. of NPDES MOR Sites: 2 No. of NPDES MOR Records: 66 90th %ile: 2360
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

Monitoring to characterize physical, chemical, and biological condition of the Beaver Creek watershed was incorporated in the Wabash River basin intensive survey conducted in 1999.

**Ohio EPA 2004 Integrated Report Appendix D.2
Watershed Assessment Unit (WAU) Summaries**

HUC11 **WAU Description** **WAU Size (mi²):** 30.3
05120103 010 Mississinewa River (headwaters to downstream Mud Creek [IN])

Integrated Report Assessment Category: 5 **Priority Points: 8**
Next Scheduled Monitoring: 2010

Aquatic Life Use Assessment

Subcategories of ALU: WWH,MWH-C Sampling Year(s): 1999
Impairment: Yes

Stream Size Category	Raw Data		% Attainment			WAU Score		
	Data Available	No. Attaining	Full	Partial	Non	Full	Partial	Non
Small (Spatial)								
< 5 mi ²	3 Sites	0 Sites						
5-20 mi ²	2 Sites	1 Sites	62.5	37.5	0.0			
20-50 mi ²	1 Sites	1 Sites						
						63	37	0
Large (Linear)								
50-500 mi ²	Sites							
	Miles	Miles						

High Magnitude Causes

Other Habitat Alterations

High Magnitude Sources

Nonirrigated Crop Production
Confined Animal Feeding Operations (NPS)
Channelization - Agriculture
Removal of Riparian Vegetation - Ag.
Streambank Destabilization - Ag.

Recreation Use Assessment

Subcategory of Use: Primary Contact
Impairment: Yes Geometric Mean: 372
No. Ambient Sites: 6 No. Ambient Sampling Records: 17 75th %ile: 510
No. of NPDES MOR Sites: 0 No. of NPDES MOR Records: 0 90th %ile: 6931
Other:

Fish Consumption Advisory (FCA) Assessment

Waters Within the WAU Sampled and Assessed:
FCA Issued:
(See the 2004 Ohio FCA for more detailed information at "www.epa.state.oh.us/dsw/fishadvisory/index.html")
Impairment Due to FCA: Pollutant (Waterbody):

Comments

This is a very small watershed within Ohio. Monitoring to characterize physical, chemical, and biological condition was incorporated in the Wabash River basin intensive survey conducted in 1999.