



Ischua Creek Watershed (0501000104)

Water Index Number	Waterbody Segment	Category
Pa-53-54	Olean Creek, Lower, and tribs (0201-0017)	No Known Impact
Pa-53-54	Olean Creek, Upper, and tribs (0201-0050)	Minor Impacts
Pa-53-54-10	Ischua Creek, Lower, and tribs (0201-0051)	Minor Impacts
Pa-53-54-10	Ischua Creek, Middle, and minor tribs (0201-0052)	No Known Impacts
Pa-53-54-10	Ischua Creek, Upper, and tribs (0201-0053)	No Known Impacts
Pa-53-54-10-22	Gates Creek and tribs (0201-0054)	Minor Impacts
Pa-53-54-10-22-P109c	Case Lake (0201-0020)	Impaired
Pa-53-54-10-P112	Ischua Creek Reservoir (0201-0008)	Unassessed
Pa-53-54-11	Oil Creek, Lower, and tribs (0201-0056)	Minor Impacts
Pa-53-54-11	Oil Creek, Upper, and tribs (0201-0057)	Unassessed
Pa-53-54-11- 5	Cuba Lake Outlet (0201-0058)	Unassessed
Pa-53-54-11- 5-P115	Cuba Lake (0201-0016)	Minor Impacts
Pa-53-54-11- 5-P115-	Minor Tribs to Cuba Lake (0201-0059)	Unassessed
Pa-53-54-11- 5-P115-(2a)	Rawson Creek and tribs (0201-0060)	Impaired
Pa-53-54-11- 6	Griffin Creek and tribs (0201-0061)	No Known Impact

There are no health advisories in place limiting the consumption of fish from this waterbody (beyond the general advice for all waters). Fish consumption is considered to be fully supported based on the absence of any waterbody-specific advisory, but is noted as unconfirmed since routine monitoring of contaminants in fish is limited. (NYS DOH Health Advisories and DEC/DOW, BWAM, January 2014)

Water Quality Information

A biological (macroinvertebrate) assessment of Olean Creek in Olean (at Main Street) was conducted in 2001. Sampling results indicated slightly impacted water quality conditions. Sampling results indicated non-impacted conditions (based on sandy-stream criteria) and very good water quality. Such samples are dominated by clean-water species and are most similar to a natural community with minimal human impacts. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2005)

Source Assessment

Specific sources of pollutants to the waterbody have not been identified.

Management Action

No specific management actions have been identified or are deemed necessary for the waterbody. Additional sampling to verify the level of impact in this waterbody segment is needed.

Section 303(d) Listing

Lower Olean Creek is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts/impairments that would justify the listing of this waterbody, although more current assessment of the waterbody is needed. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description

This segment includes the portion of the stream and all tribs from the mouth to Blakeslee Hollow Brook (-2) in Baldwin Heights. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also Class C. Upper Olean Creek is listed separately.

Olean Creek, Upper, and tribs (0201-0050)

Minor Impacts

Waterbody Location Information

Revised: 04/01/2016

Water Index No:	Pa-53-54	Water Class:	A
Hydro Unit Code:	Ischua Creek (0501000104)	Drainage Basin:	Allegheny River
Water Type/Size:	River/Stream 58 Miles	Reg/County:	9/Cattaraugus (5)
Description:	stream and tribs, from Baldwin Heights to Hinsdale		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	Stressed	Known
Public Bathing	Fully Supported	Unconfirmed
Recreation	Fully Supported	Suspected
Aquatic Life	Fully Supported	Known
Fish Consumption	Unassessed	-
Conditions Evaluated		
Habitat/Hydrology	Good	
Aesthetics	Unknown	

Type of Pollutant(s)

Known: NUTRIENTS (PHOSPHORUS), PATHOGENS
 Suspected: ---
 Unconfirmed: ---

Source(s) of Pollutant(s)

Known: MUNICIPAL DISCHARGES (Cuba WWTP)
 Suspected: AGRICULTURE
 Unconfirmed: ---

Management Information

Management Status: Restoration/Protection Strategy Needed
Lead Agency/Office: DOH/BWS
IR/305(b) Code: Water Attaining All Standards (IR Category 1)

Further Details

Overview

This portion of Olean Creek is assessed as having minor impacts due to water supply use that is known to be stressed by nutrients and pathogens from agricultural activity and municipal wastewater loads in the watershed.

Use Assessment

Upper Olean Creek is a Class A waterbody, suitable for use as a water supply, public bathing, general recreation and support of aquatic life.

Regarding water supply use, note that the evaluation of this use focuses on the source water prior to treatment, and does not necessarily reflect the quality of water distributed for use after treatment. Monitoring of water quality at the tap is conducted by local water suppliers and public health agencies. That being said, drinking water use of Olean Creek is known to experience stress/threats due to the susceptibility of the water supply to possible pathogen contamination and elevated nutrient loads from activities and sources in the watershed. Class A surface waters of the state that serve as the source of potable water for significant populations are typically categorized as potentially threatened. However the very high susceptibility to contamination, as determined by the NYSDOH Source Water Protection Program (SWAP), results in an assessment of the waterbody as Stressed.

Aquatic life is considered to be fully supported based on biological sampling that shows non-impacted conditions. This sampling can also be used to infer that there are no significant impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. Additional bacteriological sampling is also needed to more fully evaluate other recreational and swimming use. (DEC/DOW, BWAM/SBU, December 2014)

Fish Consumption use is considered to be unassessed. There are no health advisories limiting the consumption of fish from this waterbody (beyond the general advice for all waters). However due to the presence of impacts/contaminants in the stream and the uncertainty as to whether the lack of a waterbody-specific health advisory is based on actual sampling, fish consumption use is noted as unassessed, rather than fully supported but unconfirmed. (NYS DOH Health Advisories and DEC/DOW, BWAM, December 2014)

Water Quality Information

Drinking water for the City of Olean is taken from Olean Creek as well as area wells. These sources serve a population of 15,500 people. Although there are no known water quality impacts to the drinking water use of Olean Creek, a Source Water Assessment by the NYSDOH found an elevated (very high) susceptibility to contamination from pathogens due to the number of point sources (permitted municipal wastewater discharges) and nonpoint agricultural activity and pastureland in the watershed. Olean Creek is one of only a handful of surface water supplies in the state that received assessments as high as "very high" susceptibility. (NYSDOH, SWAP, October 2004)

Biological (macroinvertebrate) assessments of Olean Creek above Olean (at Hastings Road) was sampled through the NYSDEC RIBS monitoring program in 2006, 2007 and 2011. Sampling results indicated non-impacted conditions and very good water quality. Such samples are dominated by clean-water species and are most similar to a natural community with minimal human impacts. Sampling results in 2002 indicated slightly impacted water quality conditions, with evidence of nutrient enrichment. But sampling previous to that in 1995 and 1996 revealed nonimpacted water quality. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2015)

NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Olean Creek above Olean (at Hastings Road) was conducted in 2007 and included water column, sediment, and invertebrate tissue chemistry sampling, macroinvertebrate community analysis, and toxicity testing. Biological (macroinvertebrate) monitoring found slightly to non-impacted conditions with some evidence of nutrient enrichment. Water column sampling revealed only iron as a parameter of concern, which is thought to be a natural condition. Toxicity testing of water column samples indicated no significant reproductive or mortality effects on the test organism, *Ceriodaphnia dubia*. Screening for acute toxicity using Microtox® indicated moderate sediment toxicity, but no porewater toxicity. No PCBs, pesticides, or metals were detected in sediments or macroinvertebrate tissue analysis at concentrations above levels of concern (DEC/DOW, BWAM/RIBS December 2014).

NYSDEC RIBS monitoring was also conducted on Blakeslee Hollow Brook, a trib to Olean Creek in Olean (at the Blakes Lee Hollow Road Bridge) in 2011 and 2012. The macroinvertebrate community was assessed as slightly impacted; Microtox® testing showed moderate sediment toxicity, but no porewater toxicity to be present. Water column chemistry measured total dissolved solids (TDS), chloride, magnesium, manganese and iron at levels that constitute parameters of concern. Sediments were found to contain barium, arsenic and nickel at levels that are of concern. The concentration of barium was found to be one of the highest levels found in surficial sediments in New York State in the last 10 years;

barium compounds are often used in drilling muds by the oil and gas industry. Toxicity testing of water column samples indicated a significant reduction in reproductive rate mortality effects on the test organism, *Ceriodaphnia dubia*, but no significant mortality effects.

Source Assessment

Based on the biologic community composition, surrounding land use and other knowledge of the waterbody, agricultural activity runoff and overall wastewater loading in the watershed are thought to be the most likely source(s) of pollutants to Olean Creek. Issues regarding Blakeslee Hollow Brook are thought to be related to oil and gas production in the watershed.

Management Actions

No specific management actions have been identified for the waterbody, beyond routine statewide regulatory programs to control municipal wastewater and agricultural nonpoint sources. DEC regional staff will continue oversight of oil and gas production activities that may be impacting Blakeslee Hollow Brook. (DEC/DOW, BWAM and Region 9, January 2015)

Section 303(d) Listing

Upper Olean Creek is not included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. There are no impairments that would justify the listing of this waterbody. Upper Olean Creek was originally listed in 2014 and delisted in 2016 due to reassessment indicating uses are fully supporting. (BWAM/WQAS, April 2016)

Segment Description

This segment includes the portion of the stream and all tribs from/including Blakeslee Hollow Creek (-2) in Baldwin Heights to the confluence of Ischua and Oil Creeks in Hinsdale. The waters of this portion of the stream are Class A. Tribs to this reach/segment, including Blakeslee Hollow Creek (-2), Scot Branch (-7) and Gulf Brook (-8), are also Class A. Lower Olean Creek is listed separately.

Ischua Creek, Lower, and tribs (0201-0051)

MinorImpacts

Waterbody Location Information

Revised: 03/01/2015

Water Index No: Pa-53-54-10
Unit Code: 0501000102 **Class:** A
Water Type/Size: River 30.1 Miles
Description: stream and tribs, from mouth to Ischua
Drain Basin: Allegheny River
Reg/County: Upper Allegheny
9/ Cattaraugus Co. (5)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	Stressed	Known
Public Bathing	Fully Supported	Unconfirmed
Recreation	Fully Supported	Suspected
Aquatic Life	Fully Supported	Known
Fish Consumption	Unassessed	-
Conditions Evaluated		
Habitat/Hydrology	Good	
Aesthetics	Unknown	

Type of Pollutant(s)

Known: NUTRIENTS (Phosphorus),
Suspected: PATHOGENS
Unconfirmed: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE, MUNICIPAL DISCHARGES
Unconfirmed: - - -

Management Information

Management Status: Restoration/Protection Strategy Needed
Lead Agency/Office: ext/DOH
IR/305(b) Code: Water Attaining All Standards (IR Category 1)

Further Details

Overview

This portion of Ischua Creek is assessed as having minor impacts due to water supply use that is known to be stressed by nutrients and pathogens from agricultural activity and municipal wastewater loads in the watershed. These conditions also result in minor threats to aquatic life.

Use Assessment

Lower Ischua Creek is a Class A waterbody, suitable for use as a water supply, public bathing, general recreation and support of aquatic life.

Regarding water supply use, note that the evaluation of this use focuses on the source water prior to treatment, and does not necessarily reflect the quality of water distributed for use after treatment. Monitoring of water quality at the tap is conducted by local water suppliers and public health agencies. That being said, drinking water use of Ischua Creek is known to experience stress/threats due to the susceptibility of the water supply to possible pathogen

contamination and elevated nutrient loads from activities and sources in the watershed. Class A surface waters of the state that serve as the source of potable water for significant populations are typically categorized as potentially threatened. However the very high susceptibility to contamination, as determined by the NYSDOH Source Water Protection Program (SWAP), results in an assessment of the waterbody as Stressed.

Aquatic life is considered to be supported with minimal impacts. Biological sampling of the stream show conditions to be in the slightly impacted range, but approaching non-impacted and/or with a community that is most similar to natural conditions. This sampling can also be used to infer that there are no significant impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. Additional bacteriological sampling is also needed to more fully evaluate other recreational and swimming use. (DEC/DOW, BWAM/SBU, December 2014)

Fish Consumption use is considered to be unassessed. There are no health advisories limiting the consumption of fish from this waterbody (beyond the general advice for all waters). However due to the presence of impacts/contaminants in the stream and the uncertainty as to whether the lack of a waterbody-specific health advisory is based on actual sampling, fish consumption use is noted as unassessed, rather than fully supported but unconfirmed. (NYS DOH Health Advisories and DEC/DOW, BWAM, December 2014)

Water Quality Information

Drinking water for the City of Olean is taken from Olean Creek (just below and contiguous with Lower Ischua Creek) as well as area wells. These sources serve a population of 15,500 people. Although there are no known water quality impacts to the drinking water use of Olean/Ischua Creeks, a Source Water Assessment by the NYSDOH found an elevated (very high) susceptibility to contamination from pathogens due to the number of point sources (permitted municipal wastewater discharges) and nonpoint agricultural activity and pastureland in the watershed. Olean Creek is one of only a handful of surface water supplies in the state that received assessments as high as "very high" susceptibility. (NYSDOH, SWAP, October 2004)

Biological (macroinvertebrate) assessments of Ischua Creek in Maplehurst/Hinsdale (at Mill Street) were conducted through the NYSDEC RIBS monitoring program in 2006, 2007 and 2011. Sampling results indicated slightly to non-impacted conditions and very good water quality. Such samples are dominated by clean-water species and are most similar to a natural community with minimal human impacts. Sampling results in 2002 indicated slightly impacted water quality conditions, with evidence of nutrient enrichment. These earlier samples were thought to be influence by low stream flows. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2015)

NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Ischua Creek in Hinsdale (at Mill Street) was conducted in 2007 and included water column, sediment, and invertebrate tissue chemistry sampling, macroinvertebrate community analysis, and toxicity testing. Biological (macroinvertebrate) monitoring found slightly to non-impacted conditions with some evidence of nutrient enrichment. Water column sampling revealed no contaminants at levels of concern, however elevated fecal coliform levels were noted in a number of samples. Toxicity testing of water column samples indicated no significant reproductive or mortality effects on the test organism, *Ceriodaphnia dubia*. Screening for acute toxicity using Microtox® indicated moderate sediment toxicity, but no porewater toxicity. No PCBs, pesticides, or metals were detected in sediments or macroinvertebrate tissue analysis at concentrations above levels of concern. (DEC/DOW, BWAM/RIBS December 2014).

Source Assessment

Based on the biologic community composition, surrounding land use and other knowledge of the waterbody, agricultural activity runoff and overall wastewater loading in the watershed are thought to be the most likely source(s) of pollutants to Ischua Creek.

Management Action

No specific management actions have been identified for the waterbody, beyond routine statewide regulatory programs to control municipal wastewater and agricultural nonpoint sources. (DEC/DOW, BWAM and Region 9, January 2015)

Section 303(d) Listing

Lower Ischua Creek is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts/impairments that would justify the listing of this waterbody, although more current assessment of the waterbody is needed. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description

This segment includes the portion of the stream and all tribs from the mouth to unnamed trib (-4) in Ischua. The waters of this portion of the stream are Class A. Tribs to this reach/segment are also Class A. Middle/Upper Ischua Creek is listed separately.

Ischua Creek, Middle, and minor tribs (0201-0052) No Known Impacts

Waterbody Location Information

Revised: 03/01/2015

Water Index No: Pa-53-54-10
Unit Code: 0501000102 **Class:** C(T)
Water Type/Size: River 81.5 Miles
Description: stream and tribs, from Ischua to Franklinville

Drain Basin: Allegheny River
Reg/County: Upper Allegheny
9/ Cattaraugus Co. (5)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Fully Supported	Suspected
Aquatic Life	Fully Supported	Suspected
Fish Consumption	Fully Supported	Unconfirmed

Conditions Evaluated

Habitat/Hydrology	Fair
Aesthetics	Unknown

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Unconfirmed: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Unconfirmed: - - -

Management Information

Management Status: No Action Needed
Lead Agency/Office: ext/WQCC
IR/305(b) Code: Water Attaining All Standards (IR Category 1)

Further Details

Overview

This portion of Ischua Creek is assessed as having no known impacts; all evaluated uses are considered to be fully supported.

Use Assessment

Middle Ischua Creek is a Class C(T) waterbody, suitable for general recreation use and support of aquatic life, but not as a water supply or for public bathing. The waterbody is also designated as a cold water (trout) fishery.

Aquatic life is considered to be fully supported based on biological sampling that shows non-impacted conditions. This sampling can also be used to infer that there are no significant impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. (DEC/DOW, BWAM/SBU, December 2014)

There are no health advisories in place limiting the consumption of fish from this waterbody (beyond the general advice

for all waters). Fish consumption is considered to be fully supported based on the absence of any waterbody-specific advisory, but is noted as unconfirmed since routine monitoring of contaminants in fish is limited. (NYS DOH Health Advisories and DEC/DOW, BWAM, January 2014)

Water Quality Information

A biological (macroinvertebrate) assessment of Ischua Creek in Cadiz (at Route 98) and Franklinville (at West Main Street) was conducted in 2011. Sampling results indicated generally non-impacted conditions and very good water quality. Conditions at the Cadiz site were in the slightly impacted range but approaching non-impacted and communities were most similar to natural conditions. Such samples are dominated by clean-water species and are most similar to a natural community with minimal human impacts. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2015)

This evaluation is consistent with results from a biological survey of Ischua Creek conducted at multiple sites between the mouth near Maplehurst and Franklinville in 1998. This survey found non-impacted conditions at this site as well as two other sites (one between Cadiz and Ischua, the other in Ischua). An upgrade to the Franklinville WWTP in 1987 resulted in improving water quality in the stream from slightly to non-impacted. Although assessed as slightly impacted, aquatic life was considered to be fully supported in the stream. (DEC/DOW, BWAM/SBU, June 2005)

A biological assessment of a tribs to this reach of Ichua Creek (Boyce Run) found slightly impacted conditions with a community that is somewhat altered from what is expected under natural conditions, but still indicative of good water quality. (DEC/DOW, BWAM/SBU, January 2015)

Source Assessment

Specific sources of pollutants to the waterbody have not been identified.

Management Action

No specific management actions have been identified or are deemed necessary for the waterbody. Additional sampling to verify the level of impact in this waterbody segment is needed.

Section 303(d) Listing

Middle Ischua Creek is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts/impairments that would justify the listing of this waterbody, although more current assessment of the waterbody is needed. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description

This segment includes the portion of the stream and all tribs from/including unnamed trib (-4) in Ischua to Saunders Creek (-25) in Franklinville. The waters of this portion of the stream are Class C(T). Tribs to this reach/segment, including Storrs Creek (-21) and Boyce Run (-23), are Class C. Gates Creek (-22) and Lower/Upper Ischua Creek are listed separately.

Ischua Creek, Upper, and tribs (0201-0053)

No Known Impacts

Waterbody Location Information

Revised: 03/01/2015

Water Index No: Pa-53-54-10
Unit Code: 0501000102 **Class:** C(T)
Water Type/Size: River 106.7 Miles
Description: stream and tribs, above Franklinville
Drain Basin: Allegheny River
Reg/County: 9/ Cattaraugus Co. (5)
Upper Allegheny

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Fully Supported	Suspected
Aquatic Life	Fully Supported	Suspected
Fish Consumption	Fully Supported	Unconfirmed
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Unconfirmed: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Unconfirmed: - - -

Management Information

Management Status: No Action Needed
Lead Agency/Office: ext/WQCC
IR/305(b) Code: Water Attaining All Standards (IR Category 1)

Further Details

Overview

This portion of Ischua Creek is assessed as having no known impacts; all evaluated uses are considered to be fully supported.

Use Assessment

Upper Ischua Creek is a Class C(T) waterbody, suitable for general recreation use and support of aquatic life, but not as a water supply or for public bathing. The waterbody is also designated as a cold water (trout) fishery.

Aquatic life is considered to be fully supported based on biological sampling that shows non-impacted conditions. This sampling can also be used to infer that there are no significant impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. (DEC/DOW, BWAM/SBU, December 2014)

There are no health advisories in place limiting the consumption of fish from this waterbody (beyond the general advice

for all waters). Fish consumption is considered to be fully supported based on the absence of any waterbody-specific advisory, but is noted as unconfirmed since routine monitoring of contaminants in fish is limited. (NYS DOH Health Advisories and DEC/DOW, BWAM, January 2014)

Water Quality Information

A biological (macroinvertebrate) assessment of Ischua Creek in Franklinville (at West Main Street) and above Franklinville (at Ischua Valley Gif Course) was conducted in 2011. Sampling results indicated non-impacted conditions and very good water quality. Such samples are dominated by clean-water species and are most similar to a natural community with minimal human impacts. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2015)

This evaluation is generally consistent with results from a previous biological survey of Ischua Creek conducted at multiple sites between the mouth near Maplehurst and points above Franklinville in 1998. This survey found non-impacted to slightly impacted conditions at the seven sites along the stream. Two of the 3 sites located in this reach revealed slightly impacted water quality. These impacts were thought to be due at least in part to salt piles and junk piles in the Rock Spring Brook watershed, that have since been addressed, and golf course runoff. (DEC/DOW, BWAM/SBU, June 2005)

A biological assessment of a tribs to this reach of Ichua Creek (Saunders Creek) found slightly impacted conditions with a community that is somewhat altered from what is expected under natural conditions, but still indicative of good water quality. (DEC/DOW, BWAM/SBU, January 2015)

Source Assessment

Specific sources of pollutants to the waterbody have not been identified.

Management Action

No specific management actions have been identified or are deemed necessary for the waterbody. Additional sampling to verify the level of impact in this waterbody segment is needed.

Section 303(d) Listing

Upper Ischua Creek is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts/impairments that would justify the listing of this waterbody, although more current assessment of the waterbody is needed. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description

This segment includes the portion of the stream and all tribs above/including Saunders Creek (-25) in Franklinville. The waters of this portion of the stream are Class C,C(T). Tribs to this reach/segment, including Bear Creek (-26), Johnson Creek (-28) and Gulf Creek (-32), are Class C,C(T). Lower Ischua Creek is listed separately.

Gates Creek and tribs (0201-0054)

Minor Impacts

Waterbody Location Information

Revised: 03/01/2015

Water Index No: Pa-53-54-10-22
Unit Code: 0501000102 **Class:** C
Water Type/Size: River 37.1 Miles
Description: entire stream and tribs

Drain Basin: Allegheny River
Reg/County: 9/ Cattaraugus Co. (5)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Suspected
Aquatic Life	Stressed	Known
Fish Consumption	Fully Supported	Unconfirmed

Conditions Evaluated

Habitat/Hydrology	Unknown
Aesthetics	Unknown

Type of Pollutant(s)

Known: NUTRIENTS (Phosphorus)
Suspected: Pesticides
Unconfirmed: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE, Municipal Discharges
Unconfirmed: - - -

Management Information

Management Status: Restoration/Protection Strategy Needed
Lead Agency/Office: DOW/Reg9
IR/305(b) Code: Water Attaining All Standards (IR Category 1)

Further Details

Overview

Gates Creek is assessed as having minor impacts due to aquatic life and recreation uses that are known to be stressed by suspected nutrient enrichment and silt/sedimentation thought to be from nonpoint agricultural sources.

Use Assessment

Gates Creek is a Class C waterbody, suitable for general recreation use and support of aquatic life, but not as a water supply or for public bathing.

Aquatic life is evaluated as supported but stressed based on biological sampling that shows slight impacts. This sampling can also be used to infer that there may be minor impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. (DEC, DOW, BWAM, July 2014)

There are no health advisories in place limiting the consumption of fish from this waterbody (beyond the general advice

for all waters). Fish consumption is considered to be fully supported based on the absence of any waterbody-specific advisory, but is noted as unconfirmed since routine monitoring of contaminants in fish is limited. (NYS DOH Health Advisories and DEC/DOW, BWAM, January 2014)

Water Quality Information

A biological (macroinvertebrate) assessment of Gates Creek in Franklinville (at Route 98) was conducted as part of the RIBS biological screening effort in 2006. Sampling results reflect fair to good water quality, with the macroinvertebrate community altered from what is expected under natural conditions. Some expected sensitive species are not present and overall macroinvertebrate species richness is lower than expected. Some changes in community composition have occurred due to replacement of sensitive ubiquitous taxa by more tolerant taxa, but overall there is still balanced distribution of all expected taxa. In spite of these minor impacts, aquatic life is considered to be supported. (DEC/DOW, BWAM/SBU, January 2015)

Source Assessment

Specific sources of pollutants to the waterbody have not been identified. However based on the biologic community composition, surrounding land use and other knowledge of the waterbody, agricultural activity is a possible source of pollutants to the waterbody. (DEC/DOW, BWAM/SBU, January 2015)

Management Action

No specific management actions have been identified for the waterbody.

Section 303(d) Listing

Gates Creek is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There are no impacts/impairments that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment are also Class C. Case Lake (P109c) is listed separately.

Case Lake (0201-0020)

Impaired

Waterbody Location Information

Revised: 03/01/2015

Water Index No: Pa-53-54-10-22-P109c
Unit Code: 0501000102 **Class:** C(T)
Water Type/Size: Lake 68.9 Acres
Description: entire lake

Drain Basin: Allegheny River
Reg/County: Upper Allegheny
9/ Cattaraugus Co. (5)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Impaired	Known
Aquatic Life	Stressed	Suspected
Fish Consumption	Unassessed	-

Conditions Evaluated

Habitat/Hydrology	Fair
Aesthetics	Good

Type of Pollutant(s)

Known: NUTRIENTS (Phosphorus), Low D.O./Oxygen Demand Algal/Plant Growth (native), Aquatic Invasive Species
Suspected: - - -
Unconfirmed: Harmful Algal Blooms,

Source(s) of Pollutant(s)

Known: - - -
Suspected: UNKNOWN SOURCE, Agriculture, OTHER SOURCE (internal recycling),
Unconfirmed: Onsite/Septic Systems, Urban/Storm Runoff

Management Information

Management Status: Verification of Sources Needed
Lead Agency/Office: DOW/BWRM
IR/305(b) Code: Impaired Water Requiring a TMDL (IR Category 5)

Further Details

Overview

Case Lake is assessed as an impaired waterbody due to general recreation use and support of aquatic life that is known to be impaired by excessive algae, poor water clarity, and low dissolved oxygen. Invasive aquatic species may also contribute to recreational use impairment.

Use Assessments

Case Lake is a Class C(T) waterbody, suitable for general recreation use and support of aquatic life, but not as a water supply or for public bathing. Case Lake is a multi-purpose reservoir in the Ischua Creek Watershed Protection District.

Recreation use is considered to be impaired by elevated nutrients (phosphorus), excessive algae and poor water clarity. Non-contact recreation (boating, fishing) is also affected by high densities of invasive plant growth (Eurasian watermilfoil, curly leafed pondweed)]. Aesthetic conditions of the lake are considered to be fair due to algal blooms

and excessive aquatic vegetation. (DEC/DOW, BWAM/LMAS, July 2013)

Aquatic life is considered to be impaired due to summer deepwater oxygen levels that typically fall below the state water quality standards. The lake supports an adequate fishery for warmwater fish species such as largemouth bass, sunfish, yellow perch and bullheads. NYSDEC stocks the lake each spring with yearling and two year old trout and most years in the fall with surplus brood stock trout. However, all species are limited to the upper depths of the lake from mid-June through August due to depleted oxygen in the hypolimnion (below about 15 feet). While warmwater species survive, stocked trout not removed by anglers suffer high mortality because temperature in the upper waters are typically too warm to support cold water species. (DEC/DFWMR, Region 9, January 2007)

Fish Consumption use is considered to be unassessed. There are no health advisories limiting the consumption of fish from this waterbody (beyond the general advice for all waters). However due to the presence of impacts/contaminants in the stream and the uncertainty as to whether the lack of a waterbody-specific health advisory is based on actual sampling, fish consumption use is noted as unassessed, rather than fully supported but unconfirmed. (NYS DOH Health Advisories and DEC/DOW, BWAM, December 2014)

Water Quality Information

Water quality sampling of Case Lake has been conducted through the Lake Classification and Inventory (LCI) survey in 2006, 2007 and 2012. Results of this sampling indicate that the lake is best characterized as eutrophic, or highly productive. Chlorophyll/algal levels are above criteria corresponding to impaired recreational uses, while phosphorus concentrations are typically high. Lake clarity measurements indicate water transparency readings frequently fail to meet the recommended minimum criteria for swimming beaches. (DEC/DOW, BWAM/LCI, March 2014)

LCI data and data collected by fisheries staff found deepwater anoxia (the absence of oxygen) throughout the hypolimnion during most of the summer. The 2012 LCI data showed dissolved oxygen levels below 4mg/l at depths of 4 meters and below in June and 3 meters and below in early and late August. Fisheries data indicate that warmwater fish species are able to survive during the summer; however stocked trout suffer high mortality (impairment) because temperatures in the oxygen rich surface waters are typically too warm to support cold water species (DEC/DFWMR, Region 9, January 2007 & February 2012). High pH values were observed on all 2012 sampling dates; however, no evidence of aquatic life impairments from high pH have been documented or reported. (DEC/DOW, BWAM/LMAS and DEC/DFWMR, Fisheries, January 2014)

Dissolved oxygen depletion has the potential for reductive release of nutrients from sediments which can lead to internal nutrient loading. Soluble phosphorus levels within the bottom waters of the lake suggest that phosphorus is being released from bottom sediments and contributing to the high total phosphorus levels.

Source Assessment

The specific sources of phosphorus to Case Lake have not been identified, however surrounding land use suggests agricultural nonpoint nutrient sources are a likely contributing source. Dissolved oxygen depletion has the potential for reductive release of nutrients from sediments which can lead to internal nutrient loading. Other possible sources include residential onsite wastewater treatment (septic) systems, nonpoint source runoff from agricultural activities, groundwater transport and stormwater runoff. Sedimentation, from unstable creek banks, throughout the watershed, is also thought to contribute to the source of impacts. The upper end of the lake has filled in significantly over time and this reduces the overall volume of the lake, further impacting dissolved oxygen levels. Aquatic vegetation is also an increasing concern. (DEC/DOW, BWAM, March 2014)

Management Actions

Case Lake is included on the Section 303(d) List for eventual development of a TMDL or other restoration strategy (see below).

A range of best management practices and other recommendations to restore and protect water quality in New York State lakes are outlined in the NYSDEC manual Diet for a Small Lake (NYSDEC/NYSFOLA, 2009)

The Lake is managed as a warm/cool water fishery. NYSDEC stocks the lake each spring with yearling and two year

old trout and most years in the fall with surplus brood stock trout. In the mid-1990's NYSDEC Fisheries staff attempted to provide some relief through releases to enhance oxygen in the hypolimnion, but these attempts were unsuccessful. (DEC/DFWMR, Region 9, January 2007)

Section 303(d) List Information

Case Lake is currently included on the current (2014) NYS Section 303(d) List. The waterbody is included on Part 1 of the List as a waterbody requiring TMDL development for phosphorus. This waterbody was first listed on the 2014 List. (DEC/DOW, BWAM, January 2015)

Segment Description

This segment includes the entire lake.

Ischua Creek Reservoir (0201-0008)

Unassessed

Waterbody Location Information

Revised: 03/01/2015

Water Index No: Pa-53-54-10-P112
Unit Code: 0501000102 **Class:** C(T)
Water Type/Size: Lake (R) 225.4 Acres
Description: entire reservoir

Drain Basin: Allegheny River
Reg/County: 9/ Cattaraugus Co. (5)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-

Conditions Evaluated

Habitat/Hydrology	Unknown
Aesthetics	Unknown

Type of Pollutant(s)

Known: ---
Suspected: ---
Unconfirmed: ---

Source(s) of Pollutant(s)

Known: ---
Suspected: ---
Unconfirmed: ---

Management Information

Management Status: UnAssessed
Lead Agency/Office: DOW/BWAM
IR/305(b) Code: Water with Insufficient Data (IR Category 3)

Further Details

Overview

Currently there is inadequate data/information to evaluate uses and determine a water quality assessment for this waterbody.

Segment Description

This segment includes the total area of the entire reservoir.

Oil Creek, Lower, and tribs (0201-0056)

Minor Impacts

Waterbody Location Information

Revised: 03/01/2015

Water Index No: Pa-53-54-11
Unit Code: 0501000102 **Class:** A
Water Type/Size: River 23.5 Miles
Description: stream and tribs, from mouth to Cuba Lake Outlet

Drain Basin: Allegheny River
Reg/County: Upper Allegheny
9/ Cattaraugus Co. (5)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	Unassessed	-
Public Bathing	Unassessed	-
Recreation	Stressed	Suspected
Aquatic Life	Stressed	Known
Fish Consumption	Fully Supported	Unconfirmed

Conditions Evaluated

Habitat/Hydrology	Unknown
Aesthetics	Unknown

Type of Pollutant(s)

Known: NUTRIENTS (Phosphorus)
Suspected: Pesticides
Unconfirmed: Pathogens

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE, Municipal Discharges
Unconfirmed: - - -

Management Information

Management Status: Restoration/Protection Strategy Needed
Lead Agency/Office: DOW/Reg9
IR/305(b) Code: Water Attaining All Standards (IR Category 1)

Further Details

Overview

This portion of Oil Creek is assessed as having minor impacts due to aquatic life and recreation uses that are known to be stressed by nutrient enrichment thought to be from nonpoint agricultural sources. Impacts from an area wastewater treatment facility were previously noted as a concern, but these impacts should be verified.

Use Assessment

Lower Oil Creek is a Class A waterbody, suitable for use as a water supply, public bathing beach, general recreation and support of aquatic life.

Aquatic life is evaluated as supported but stressed based on biological sampling that shows slight impacts. This sampling can also be used to infer that there may be minor impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. Additional bacteriological sampling is also needed to more fully evaluate other recreational and swimming use. (DEC, DOW, BWAM, January 2015)

There are no health advisories in place limiting the consumption of fish from this waterbody (beyond the general advice for all waters). Fish consumption is considered to be fully supported based on the absence of any waterbody-specific advisory, but is noted as unconfirmed since routine monitoring of contaminants in fish is limited. (NYS DOH Health Advisories and DEC/DOW, BWAM, January 2014)

An evaluation of water supply use for this waterbody is not included in this assessment. Water quality monitoring by NYSDEC lakes programs focuses primarily on the support of general recreation and aquatic life, and evaluations may be limited to these uses. Additional information to evaluate water supply, public bathing and fish consumption uses is generally the responsibility of and provided by state and/or local health departments.

Water Quality Information

A biological (macroinvertebrate) assessment of Oil Creek in Hinsdale (at Route 16) was conducted as part of the RIBS biological screening effort in 2006. Sampling results reflect fair water quality, with the macroinvertebrate community altered from what is expected under natural conditions and indications of nonpoint source nutrients and possible pesticide impacts. Some expected sensitive species are not present and overall macroinvertebrate species richness is lower than expected. Some changes in community composition have occurred due to replacement of sensitive ubiquitous taxa by more tolerant taxa, but overall there is still balanced distribution of all expected taxa. This evaluation is consistent with results from previous sampling at the site conducted in 2001 and 2001. In spite of these minor impacts, aquatic life is considered to be supported. (DEC/DOW, BWAM/SBU, January 2015)

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Oil Creek in Hinsdale, Cattaraugus County, (at Old State Road) was conducted in 2002. Sampling of the water column, sediments, and invertebrate tissues was conducted, as well as macroinvertebrate community analysis. Biological (macroinvertebrate) sampling indicated slightly impacted water quality at this site. Water column sampling revealed iron and lead to be parameters of concern. Toxicity testing of water column, sediment assessment and macroinvertebrate tissue analysis showed no significant impacts. Toxicity testing of sediments indicated some possible impacts; and arsenic was found to exceed the Threshold Effects level at which adverse impacts may occur. (DEC/DOW, BWAM/RIBS, January 2005)

A biological survey of Oil Creek at multiple sites between the mouth at Hinsdale and Cuba was also conducted in 2002. Sampling results indicated slightly impacted water quality conditions at all four sites. Three of these sites are in this reach. The most downstream site was also sampled in 2001 during RIBS screening of the Allegheny Basin and found to be slightly impacted. Nonpoint source nutrient enrichment was determined to be the primary source of the impacts. (DEC/DOW, BWAM/SBU, June 2005)

Source Assessment

Based on the biologic community composition, surrounding land use and other knowledge of the waterbody, the most likely source of pollutants to the waterbody is agricultural activity in the watershed. Municipal wastewater impacts were also noted in a previous assessment, but these should be verified. (DEC/DOW, BWAM, January 2015)

Previously impacts from the Cuba WWTP because of high infiltration and inflow to the collection system which results in documented periodic overflows and by-passes on raw wastewater at the treatment plant were noted as a concern. A city engineering report notes the occurrence of wastewater discharges from manholes during wet weather events. The village has undertaken collection system inspections and flow monitoring to identify sources of excess inflow and infiltration. The village is also pursuing funding to support collection system and treatment facility improvements. (DEC/DOW, Region 9, April 2008)

Management Action

No specific management actions have been identified for the waterbody.

Section 303(d) Listing

Lower Oil Creek is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts/impairments that would justify the listing of this waterbody, although more current assessment of the waterbody is needed. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description

This segment includes the portion of the stream and all tribs from the mouth to Cuba Lake Outlet. The waters of this portion of the stream are Class A. Tribs to this reach/segment are also Class A. Cuba Lake Outlet (-5) is listed separately.

Oil Creek, Upper, and tribs (0201-0057)

Unassessed

Waterbody Location Information

Revised: 03/01/2015

Water Index No: Pa-53-54-11
Unit Code: 0501000102 **Class:** C
Water Type/Size: River 32.7 Miles
Description: entire stream and tribs

Drain Basin: Allegheny River
Reg/County: 9/ Cattaraugus Co. (5)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Fully Supported	Unconfirmed
Aquatic Life	Fully Supported	Unconfirmed
Fish Consumption	Fully Supported	Unconfirmed

Conditions Evaluated

Habitat/Hydrology	Fair
Aesthetics	Unknown

Type of Pollutant(s)

Known: ---
Suspected: ---
Unconfirmed: ---

Source(s) of Pollutant(s)

Known: ---
Suspected: ---
Unconfirmed: ---

Management Information

Management Status: Verification of Problem Severity Needed
Lead Agency/Office: DOW/BWAM
IR/305(b) Code: Water Attaining All Standards (IR Category 1)

Further Details

Overview

Currently there is inadequate data/information to evaluate uses and determine a water quality assessment for Upper Oil Creek. The waterbody was assessed in 2006 as having no known impacts. However this assessment is based on older data, the assessment was influenced by habitat conditions, and the assessment used a previous methodology. Additional sampling to verify conditions is needed.

Use Assessment

Upper Oil Creek is a Class C waterbody, suitable for general recreation use and support of aquatic life, but not as a water supply or for public bathing.

A biological (macroinvertebrate) survey of Oil Creek at multiple sites between the mouth at Hinsdale and Cuba was conducted in 2002. Sampling results indicated slightly impacted water quality conditions at all four sites. The most upstream of these sites is in this reach; the other three sites are downstream (though one is just below the Cuba Lake

Outlet. The site in Cuba was evaluated at the time using sandy stream criteria. The community was most similar to impoundment effects. Although assessed as slightly impacted, aquatic life was considered to be fully supported in the stream and with no other apparent limitations to uses. (DEC/DOW, BWAM/SBU, June 2005)

Source Assessment

Specific sources of pollutants to the waterbody have not been identified.

Management Action

No specific management actions have been identified or are deemed necessary for the waterbody. Additional sampling to verify the level of impact in this waterbody segment is needed.

Section 303(d) Listing

Upper Oil Creek is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts/impairments that would justify the listing of this waterbody, although more current assessment of the waterbody is needed. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description

This segment includes the portion of the stream and selected/smaller tribs above Cuba Lake Outlet (-5). The waters of this portion of the stream are Class C. Tribs to this reach/segment, including Tannery Creek (-6a), are also Class C. Cuba Lake Outlet (-5) and Griffin Creek (-6) are listed separately.

Cuba Lake Outlet (0201-0058)

Unassessed

Waterbody Location Information

Revised: 03/01/2015

Water Index No: Pa-53-54-11- 5
Unit Code: 0501000102 **Class:** C
Water Type/Size: River 27.4 Miles
Description: entire stream

Drain Basin: Allegheny River
Reg/County: Upper Allegheny
9/ Cattaraugus Co. (5)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Fully Supported	Unconfirmed
Aquatic Life	Fully Supported	Unconfirmed
Fish Consumption	Fully Supported	Unconfirmed

Conditions Evaluated

Habitat/Hydrology	Fair
Aesthetics	Unknown

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Unconfirmed: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Unconfirmed: - - -

Management Information

Management Status: Verification of Problem Severity Needed
Lead Agency/Office: DOW/BWAM
IR/305(b) Code: Water with Insufficient Data (IR Category 3)

Further Details

Overview

Currently there is inadequate data/information to evaluate uses and determine a water quality assessment for Cuba Lake Outlet. This waterbody was assessed in 2006 as having no known impacts. However this assessment is based on older data, the assessment was influenced by habitat conditions, and the assessment used a previous methodology. Additional sampling to verify conditions is needed.

Use Assessment

Cuba Lake Outlet is a Class C waterbody, suitable for general recreation use and support of aquatic life, but not as a water supply or for public bathing.

Aquatic life was previously found to experience no known impacts, however due to the age of the data (more than 10 years old) additional sampling is needed to verify current impacts/impairment/conditions. (DEC/DOW, BWAM/SBU, December 2014)

There are no health advisories in place limiting the consumption of fish from this waterbody (beyond the general advice for all waters). Fish consumption is considered to be fully supported based on the absence of any waterbody-specific advisory, but is noted as unconfirmed since routine monitoring of contaminants in fish is limited. (NYS DOH Health Advisories and DEC/DOW, BWAM, January 2014)

Water Quality Information

A biological (macroinvertebrate) assessment of Cuba Lake Outlet (at Route 446) was conducted in 2001. Sampling results indicated slightly impacted water quality conditions. The site is a mile below Cuba Lake and impoundment effects were evident. The fauna was dominated by filter-feeding caddisflies. Although assessed as slightly impacted, aquatic life is considered at the time to be fully supported in the stream with no other apparent limitations to uses. (DEC/DOW, BWAM/SBU, June 2005)

Source Assessment

Specific sources of pollutants to the waterbody have not been identified.

Management Action

No specific management actions have been identified or are deemed necessary for the waterbody. Additional sampling to verify the level of impact in this waterbody segment is needed.

Section 303(d) Listing

Cuba Lake Outlet is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts/impairments that would justify the listing of this waterbody, although more current assessment of the waterbody is needed. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description

This segment includes the entire stream. The waters of the stream are Class C.

Cuba Lake (0201-0016)

Minor Impacts

Waterbody Location Information

Revised: 04/01/2016

Water Index No: Pa-53-54-11- 5-P115
Hydro Unit Code: Ischua Creek (0501000104)
Water Type/Size: Lake/Reservoir 455 Acres
Description: entire lake

Water Class: B
Drainage Basin: Allegheny River
Reg/County: 9/Alleghany (2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	Stressed	Suspected
Recreation	Stressed	Known
Aquatic Life	Threatened	Suspected
Fish Consumption	Fully Supported	Unconfirmed
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s)

Known: NUTRIENTS (PHOSPHORUS)
Suspected: Algal/Plant Growth, Low D.O./Oxygen Demand
Unconfirmed: Pathogens

Source(s) of Pollutant(s)

Known: ---
Suspected: AGRICULTURE, On-Site/Septic Syst
Unconfirmed: --

Management Information

Management Status: Restoration/Protection Strategy Needed
Lead Agency/Office: DOW/Reg9
IR/305(b) Code: Water Attaining All Standards (IR Category 1)

Further Details

Overview

Cuba Lake is assessed as having minor impacts due to recreational uses that are known to be stressed by elevated nutrient levels and resulting algal growth. Nonpoint source loads from agricultural activity in the watershed and onsite wastewater treatment (septic) systems serving lakeside residences are the suspected sources of the impacts. More recent sampling of the Lake indicates improving conditions.

Use Assessment

Cuba Lake is a Class B waterbody, suitable for use as a public bathing beach, general recreation and support of aquatic life, but not as a water supply.

Recreation use and public bathing are considered to be supported but stressed by elevated nutrients (phosphorus) that result in some excessive algal growth. Water quality monitoring by NYSDEC lakes programs focuses primarily on the support of general recreation and aquatic life. Samples to evaluate the bacteriological condition and bathing use of the lake, or to evaluate contamination from organic compounds, metals or other inorganic pollutants are not usually collected as part of these monitoring programs. Monitoring to assess public bathing use and assessments of restrictions on fish consumption are generally the responsibility of state and/or local health departments. (DEC/DOW, BWAM/LMAS, January 2015)

The Lake supports a quality fishery of walleye and smallmouth bass. Walleye are naturally reproducing and very abundant. Smallmouth bass have declined only slightly and is still considered an exceptional fishery. Competition with northern pike, introduced into the Lake in the 1990s, may explain the decline. Yellow perch and rock bass are also present. Episodic low dissolved oxygen in the deep waters of the Lake are a concern, but surveys indicate there is sufficient refuge and the fishery is not significantly affected. (DEC/DFWMR, Fisheries, 2011)

There are no health advisories in place limiting the consumption of fish from this waterbody (beyond the general advice for all waters). Fish consumption is considered to be fully supported based on the absence of any waterbody-specific advisory, but is noted as unconfirmed since routine monitoring of contaminants in fish is limited. (NYS DOH Health Advisories and DEC/DOW, BWAM, January 2014)

Water Quality Information

Water quality sampling of Cuba Lake has been conducted through the NYSDEC Citizens Statewide Lake Assessment Program (CSLAP) off and on through the 1980s and 90s and from 1998 through 2013. Results of this sampling indicate the lake is best characterized as mesoeutrophic, or moderately to highly productive. Chlorophyll/algal levels are characteristic of eutrophic conditions, corresponding to impacted recreational uses. However phosphorus concentrations are lake clarity measurements indicate lower levels of impact. Readings of pH typically fall within the range established in state water quality standards for protection of aquatic life. (DEC/DOW, BWAM/LMAS, May 2006)

Public perception of the lake and its uses is also evaluated as part of the CSLAP effort. This assessment indicates recreational suitability of the lake to be highly favorable, consistent with previous assessments. The recreational suitability of the lake is described most frequently as “could not be nicer” or “excellent”. The lake itself is most often described as “not quite crystal clear” and an assessment that is slightly more favorable than suggested by measured water quality characteristics. Assessments have noted that aquatic plants only occasionally grow to the lake surface but do not significantly impact recreational uses. Aquatic plants are dominated by a mix of native and non-native species. (DEC/DOW, BWAM/CSLAP, January 2014)

Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely source(s) of pollutants to the waterbody are nonpoint source loads from agricultural activity in the watershed and onsite wastewater treatment (septic) systems serving lakeside residences. Previous assessments have cited inadequate on-site septic systems that serve about 300 seasonal and some year-round lakeside residences as suspected/possible sources of water quality impact. The most recent investigations have not identified obvious septic systems failures, but small lot sizes and poor soils limit properly designed systems. A sewer district proposal was narrowly accepted by local voters in 2007. (DEC/DOW, Region 9, January 2013)

Management Actions

The formation of the local sewer district to serve lakeside residences is the most significant effort to protect water quality in Cuba Lake. Recent sampling suggests improving water quality in the lake, but continued monitoring is needed to determine if this represents a trend. (DEC/DOW, BWAM and Region 9, January 2014)

Section 303(d) Listing

Cuba Lake is not included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. There are no impacts that would justify the listing of this waterbody. Cuba Lake was originally listed as a waterbody with low dissolved oxygen from undetermined causes and was delisted in 2016 due to reassessment indicating uses are fully supporting. (DEC/DOW, BWAM/WQAS, April 2016)

Segment Description

This segment includes the total area of the entire lake.

Minor Tribs to Cuba Lake (0201-0059)

Unassessed

Waterbody Location Information

Revised: 03/01/2015

Water Index No: Pa-53-54-11- 5-P115-
Unit Code: 0501000102 **Class:** C
Water Type/Size: River 23.7 Miles
Description: total length of minor tribs to Cuba Lake

Drain Basin: Allegheny River
Reg/County: Upper Allegheny
9/ Allegany Co. (2)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-

Conditions Evaluated

Habitat/Hydrology	Unknown
Aesthetics	Unknown

Type of Pollutant(s)

Known: ---
Suspected: ---
Unconfirmed: ---

Source(s) of Pollutant(s)

Known: ---
Suspected: ---
Unconfirmed: ---

Management Information

Management Status: UnAssessed
Lead Agency/Office: DOW/BWAM
IR/305(b) Code: Water with Insufficient Data (IR Category 3)

Further Details

Overview

Currently there is inadequate data/information to evaluate uses and determine a water quality assessment for this waterbody.

Segment Description

This segment includes the total length of selected/smaller tribs to Cuba Lake. Tribs within this segment, including Abbotts Creek (-2), are Class C. Rawson Creek (-2a) is listed separately.

Rawson Creek and tribs (0201-0060)

Impaired

Waterbody Location Information

Revised: 03/01/2015

Water Index No: Pa-53-54-11- 5-P115-(2a) **Drain Basin:** Allegheny River
Unit Code: 0501000102 **Class:** C **Reg/County:** Upper Allegheny
Water Type/Size: River 24.7 Miles **Reg/County:** 9/ Allegany Co. (2)
Description: entire stream and tribs

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Impaired	Known
Aquatic Life	Precluded	Known
Fish Consumption	Unassessed	-

Conditions Evaluated

Habitat/Hydrology	Poor
Aesthetics	Fair

Type of Pollutant(s)

Known: NUTRIENTS (Phosphorus), Low D.O./Oxygen Demand
Suspected: Unknown Toxicity
Unconfirmed: - - -

Source(s) of Pollutant(s)

Known: AGRICULTURE (CAFO)
Suspected: - - -
Unconfirmed: - - -

Management Information

Management Status: Restoration/Protection Strategy Needed
Lead Agency/Office: DOW/Reg9
IR/305(b) Code: Impaired Water Requiring a TMDL (IR Category 5)

Further Details

Overview

Rawson Creek is assessed as an impaired waterbody due to aquatic life and recreation uses that are known to be impaired by nutrient levels and resulting low dissolved oxygen. Agricultural sources are the identified source of the impairment.

Use Assessment

Rawson Creek is a Class C waterbody, suitable for general recreation use and support of aquatic life, but not as a water supply or for public bathing.

Aquatic life is evaluated as impaired based on biological sampling that shows significant impacts and sampling data showing low dissolved oxygen. This sampling can also be used to infer that there are significant impacts to recreational (fishing) uses as well, although more specific sampling is necessary to confirm this is the case. (DEC, DOW, BWAM, July 2014)

Fish Consumption use is considered to be unassessed. There are no health advisories limiting the consumption of fish from this waterbody (beyond the general advice for all waters). However due to the presence of impacts/contaminants in the stream and the uncertainty as to whether the lack of a waterbody-specific health advisory is based on actual sampling, fish consumption use is noted as unassessed, rather than fully supported but unconfirmed. (NYS DOH Health Advisories and DEC/DOW, BWAM, December 2014)

Water Quality Information

A biological (macroinvertebrate) assessment of Rawson Creek in Rawson (at Lyndon Center Road) was conducted as part of the RIBS biological screening effort in 2011. Sampling results reflect moderately impacted (poor) water quality, with sensitive taxa reduced, and the distribution of major taxonomic groups significantly different from what is naturally expected. Aquatic life is considered to be impaired. This evaluation is consistent with results from previous sampling at the site conducted in 2001. (DEC/DOW, BWAM/SBU, January 2015)

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Rawson Creek in Rawson (at Lyndon Corners Road) was conducted in 2002. Sampling of the water column, sediments, and invertebrate tissues was conducted. No macroinvertebrate community analysis was conducted in 2002 due to bridge construction at the site. Water column sampling revealed nitrate to be a parameter of concern, exceeding its assessment criteria in one of five samples. Toxicity testing of water column showed no significant impacts, however testing of sediments indicated some possible toxicity. (DEC/DOW, BWAM/RIBS, January 2005)

Habitat at the site is significantly altered by human activity, degrading the stream and surrounding riparian buffer. (DEC/DOW, BWAM/SBU, January 2015)

Source Assessment

Agricultural activity has been identified as the primary source of the nutrient loading to the stream. A spill of silage leachate from a CAFO into the stream in 2001 resulted in significant impacts. Silage runoff and other nonpoint contributions from this CAFO remain a concern. (DEC/DOW, Region 9, January 2010)

Management Action

Most management action to date has focused on individual farms to bring them into compliance with CAFO general permit requirements, and to address other impacts from agricultural practices. Rawson Creek is also included on the Section 303(d) List of Impaired/TMDL Waters (see below).

Section 303(d) Listing

Rawson Creek is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 3b of the List as an impaired waterbody for which a TMDL may be deferred pending verification of the source and determination if the impairment can be addressed outside the TMDL process. The waterbody listed for phosphorus. This waterbody was first listed on the 2012 List. (DEC/DOW, BWAM/WQAS, January 2014)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment are also Class C.

Griffin Creek and tribs (0201-0061)

No Known Impact

Waterbody Location Information

Revised: 03/01/2015

Water Index No: Pa-53-54-11- 6
Unit Code: 0501000102 **Class:** C
Water Type/Size: River 32.0 Miles
Description: entire stream and tribs

Drain Basin: Allegheny River
Reg/County: Upper Allegheny
9/ Allegany Co. (2)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Fully Supported	Suspected
Aquatic Life	Fully Supported	Suspected
Fish Consumption	Fully Supported	Unconfirmed

Conditions Evaluated

Habitat/Hydrology	Unknown
Aesthetics	Unknown

Type of Pollutant(s)

Known: ---
Suspected: ---
Unconfirmed: ---

Source(s) of Pollutant(s)

Known: ---
Suspected: ---
Unconfirmed: ---

Management Information

Management Status: No Action Needed
Lead Agency/Office: ext/WQCC
IR/305(b) Code: Water Attaining All Standards (IR Category 1)

Further Details

Overview

Griffin Creek is assessed as having no known impacts; all evaluated uses are considered to be fully supported. However, this assessment is based on older data and sampling to verify conditions is recommended.

Use Assessment

Griffin Creek is a Class C waterbody, suitable for general recreation use and support of aquatic life, but not as a water supply or for public bathing.

Aquatic life is considered to be fully supported based on biological sampling that shows non-impacted conditions. This sampling can also be used to infer that there are no significant impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. (DEC/DOW, BWAM/SBU, December 2014)

There are no health advisories in place limiting the consumption of fish from this waterbody (beyond the general advice for all waters). Fish consumption is considered to be fully supported based on the absence of any waterbody-specific advisory, but is noted as unconfirmed since routine monitoring of contaminants in fish is limited. (NYS DOH Health Advisories and DEC/DOW, BWAM, January 2014)

Water Quality Information

A biological (macroinvertebrate) assessment of Griffin Creek (at Bull Street) was conducted in 2002. Sampling results indicated slightly impacted water quality conditions. Elevated conductivity and a fauna dominated by facultative midges was found at the site. Nonpoint source runoff and siltation were noted as likely sources of impacts. Although assessed as slightly impacted, aquatic life is considered to be fully supported in the stream and no limitations to other uses are apparent. (DEC/DOW, BWAM/SBU, June 2005)

Source Assessment

Specific sources of pollutants to the waterbody have not been identified.

Management Action

No specific management actions have been identified or are deemed necessary for the waterbody. Additional sampling to verify the level of impact in this waterbody segment is needed.

Section 303(d) Listing

Griffin Creek is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts/impairments that would justify the listing of this waterbody, although more current assessment of the waterbody is needed. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class C,C(T). Tribs to this reach/segment, including Johnson Creek (-2) and West Branch (-3), are Class C.