



Smoke Creek-Frontal Lake Erie (0412010304)

Water Index Number

Ont 158-E (portion 4)
 Ont 158-E (portion 5)
 Ont 158..E- 2
 Ont 158..E- 2
 Ont 158..E- 2- 1
 Ont 158..E- 2- 1
 Ont 158..E- 2- 1-P81b
 Ont 158..E- 3
 Ont 158..E- 4 thru 12

Waterbody Segment

Lake Erie (Northeast Shoreline) (0104-0035)
 Lake Erie (Northeast Shoreline) (0104-0036)
 Smoke Creek, Lower, and minor tribs (0101-0007)
 Smoke Creek, Upper, and tribs (0101-0035)
 South Branch Smoke Cr, Lower, and tribs (0101-0036)
 South Branch Smoke Cr, Upper, and tribs (0101-0037)
 Green Lake (0101-0038)
 Rush Creek and tribs (0104-0018)
 Minor Tribs to Lake Erie (0104-0038)

Category

Impaired Seg
Impaired Seg
MinorImpacts
MinorImpacts
Impaired Seg
MinorImpacts
Impaired Seg
Impaired Seg
 UnAssessed

Lake Erie (Northeast Shoreline) (0104-0035)

Impaired Seg

Waterbody Location Information

Revised: 05/07/2010

Water Index No: Ont 158-E (portion 4)
Hydro Unit Code: 04120103/ **Str Class:** C
Waterbody Type: G.Lakes
Waterbody Size: 2.8 ShrMi
Seg Description: portion as described below

Drain Basin: Lake Erie-Niagara River
Buffalo/Eighteenmile
Reg/County: 9/Erie Co. (15)
Quad Map: BUFFALO SOUTHEAST (J-05-3)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Impaired	Known

Type of Pollutant(s)

Known: PRIORITY ORGANICS (PCBs)
Suspected: ---
Possible: ---

Source(s) of Pollutant(s)

Known: ---
Suspected: TOX/CONTAM. SEDIMENT
Possible: ---

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DEC/FWMR **Resolution Potential:** Low
TMDL/303d Status: 2b (Multiple Segment/Categorical Water, Fish Consumption)

Further Details

Overview

Fish consumption in this portion of Lake Erie Shoreline is considered to be impaired due to PCB contamination from Lake sediments attributed to past/historic industrial discharges.

Fish Consumption Advisories

Fish consumption in Lake Erie is impaired by a NYS DOH health advisory that recommends that women of childbearing age and children under the age of 15 eat no more than one meal per month of certain species due to PCB contamination. Advisories for this population regarding some species (smaller chinook salmon, burbot, freshwater drum, lake whitefish, rock bass and yellow perch) recommend a less restrictive limit of no more than one meal per week - the same as the general (statewide) advisory for fish consumption for all people. However, because the more stringent restrictions apply to a significantly large population, fish consumption in the Lake Erie is considered to be impaired. (2002-03 NYS DOH Health Advisories, May 2010).

Section 303d Listing

This segment of Lake Erie Shoreline is included on the NYS 2010 Section 303(d) List of Impaired Waters. The lake is included on Part 2b of the List as a fish consumption water. This waterbody was first listed on the 2002 Section 303(d) List. (DEC/DOW, BWAM/WQAS, January 2010)

Segment Description

This segment includes the lake shoreline south of the southern end (base) of the Outer Harbor breakwater at Stony Point, and north of a line extending First Street in Woodlawn to the shore. The waters of this segment are Class C.

Lake Erie (Northeast Shoreline) (0104-0036)

Impaired Seg

Waterbody Location Information

Revised: 05/07/2010

Water Index No: Ont 158-E (portion 5)
Hydro Unit Code: 04120103/ **Str Class:** B
Waterbody Type: G.Lakes
Waterbody Size: 9.0 ShrMi
Seg Description: portion as described below

Drain Basin: Lake Erie-Niagara River
Buffalo/Eighteenmile
Reg/County: 9/Erie Co. (15)
Quad Map: BUFFALO SOUTHEAST (J-05-3)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
PUBLIC BATHING	Impaired	Known
FISH CONSUMPTION	Impaired	Known
RECREATION	Impaired	Known

Type of Pollutant(s)

Known: PRIORITY ORGANICS (PCBs), PATHOGENS
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: TOX/CONTAM. SEDIMENT, URBAN/STORM RUNOFF,
Possible: On-Site/Septic Syst

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DEC/Reg9 **Resolution Potential:** Medium
TMDL/303d Status: 1,2b (Individual Waterbody Impairment Requiring a TMDL, more)

Further Details

Overview

Public bathing, recreational uses and fish consumption in this reach of the Lake Erie shoreline are impaired due to pathogen contamination from various sources that result in periodic bathing beach closures, and from PCBs and other contaminants from lake sediments.

Public Bathing Use

Public bathing and other recreational uses of this portion of the Lake Erie shoreline are also impaired due to pathogen contamination from various sources that result in periodic bathing beach closures. Monitoring of beaches along this reach have found levels of bacteriological contamination that exceed water quality standards for public bathing uses and result in periodic beach closures. Within this reach samples collected at Woodlawn Beach found 34% of all samples collected in 2008 exceeded bacterial standards resulting in 44 beach action days. Hamburg Bathing Beach samples exceeded standards 20% of the time resulting in 24 beach action days. (Alliance for the Great Lakes, February 2010 and Testing the Waters, Natural Resources Defense Council, 2009)

Fish Consumption Advisories

Fish consumption in Lake Erie is impaired by a NYS DOH health advisory that recommends that women of childbearing age and children under the age of 15 eat no more than one meal per month of certain species due to PCB contamination. Advisories for this population regarding some species (smaller chinook salmon, burbot, freshwater drum, lake whitefish, rock bass and yellow perch) recommend a less restrictive limit of no more than one meal per week - the same as the general (statewide) advisory for fish consumption for all people. However, because the more stringent restrictions apply to a significantly large population, fish consumption in the Lake Erie is considered to be impaired. (2002-03 NYS DOH Health Advisories, October 2002).

Section 303(d) Listing

This segment of the Lake Erie Shoreline was included on the 2010 Section 303(d) List of Impaired Waters. The segment has long been listed on Part 2b of the List due to fish consumption advisories related to PCB levels. A listing for this segment due to pathogen contamination was added in 2010; this listing is included in Part 1 as an impaired waterbody requiring development of a TMDL to attain water quality standards. (DEC/DOW, BWAM/WQAS, May 2010)

Segment Description

This segment includes the lake shoreline south of a line extending from First Street in Woodlawn to the shore and north of the mouth of Eighteenmile Creek. The waters of this segment are Class B.

Smoke Creek, Lower, and minor tribs (0101-0007)

MinorImpacts

Waterbody Location Information

Revised: 06/01/2010

Water Index No: Ont 158..E- 2
Hydro Unit Code: 04120103/040 **Str Class:** C
Waterbody Type: River
Waterbody Size: 7.2 Miles
Seg Description: stream and selected tribs, fr mouth to Webster Corners

Drain Basin: Lake Erie-Niagara River
Buffalo/Eighteenmile
Reg/County: 9/Erie Co. (15)
Quad Map: BUFFALO SOUTHEAST (J-05-3)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Aquatic Life	Stressed	Known
Recreation	Stressed	Known
Aesthetics	Stressed	Known

Type of Pollutant(s)

Known: Aesthetics (sludge banks)
Suspected: NUTRIENTS (phosphorus), SILT/SEDIMENT, Pathogens
Possible: D.O./Oxygen Demand, Metals

Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF
Suspected: INDUSTRIAL
Possible: Comb. Sewer Overflow, Municipal, Other Sanitary Disch, Tox/Contam. Sediment

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/WQCC
TMDL/303d Status: n/a

Resolution Potential: Medium

Further Details

Overview

Aquatic life support and recreational uses in this portion of Smoke Creek is known to experience impacts from elevated nutrient and silt/sediment loads, sludge banks, and other pollutants associated with urban runoff and other nonpoint source inputs. In spite of these minor impacts, aquatic life is considered to be fully supported in the stream.

Water Quality Sampling

NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Smoke Creek in Lackawanna, Erie County, (at Route 62) was conducted in 2005 and 2006. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, toxicity testing, sediment assessment and macroinvertebrate tissue analysis. Biological (macroinvertebrate) sampling indicated the lower range of slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of enrichment are sufficient to cause some stress to aquatic life. Impact source determination found fauna that is most similar to communities influenced by nonpoint sources and impoundment effects. Water column chemistry indicates pathogens and total dissolved solids to be present at levels

that constitute parameters of concern. Toxicity testing using water from this location detected no significant mortality, but reproductive effects on the test organism were noted in one of three tests. Sediment screening for acute toxicity indicated some possible sediment toxicity and no porewater toxicity was indicated. Bottom sediments analysis based on sediment quality guidelines developed for freshwater ecosystems revealed overall sediment quality is not likely to cause chronic toxicity to sediment-dwelling organisms, however some metals and organic substances were found to be present at elevated levels. Based on the consensus of these established assessment indicators, overall water quality at this site shows that in spite of some concerns that should continue to be monitored, aquatic life and recreational uses are considered to be fully supported in the stream. (DEC/DOW, BWAM/RIBS, June 2010)

These results are consistent with results found during sampling conducted at this site in 2000. Sampling results at that time indicated slightly impacted water quality conditions. Impact Source Determination identified municipal/industrial effects and nonpoint sources effects, indicating that urban runoff is likely the primary stressor. Conditions in South Branch Smoke Creek (listed separately) were assessed as moderately impacted. (DEC/DOW, BWAR/SBU, April 2003)

Source Assessment

The primary cause of impact to recreation is past industrial activities and discharges including sludge banks along the creek. Hydrologic modification of the lower creek for flood control is also a concern. (DEC/DOW, Region 9, 1996)

Segment Description

This segment includes the portion of the stream and selected/smaller tribs from the mouth to Route 20 near Webster Corners. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also Class C. South Branch (-1) is listed separately.

Smoke Creek, Upper, and tribs (0101-0035)

MinorImpacts

Waterbody Location Information

Revised: 05/07/2010

Water Index No: Ont 158..E- 2
Hydro Unit Code: 04120103/040 **Str Class:** C
Waterbody Type: River
Waterbody Size: 25.5 Miles
Seg Description: stream and tribs, above Webster Corners

Drain Basin: Lake Erie-Niagara River
Buffalo/Eighteenmile
Reg/County: 9/Erie Co. (15)
Quad Map: ORCHARD PARK (J-06-4)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Aquatic Life	Stressed	Known
Recreation	Stressed	Known

Type of Pollutant(s)

Known: NUTRIENTS (phosphorus), Unknown Toxicity
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF
Suspected: Municipal
Possible: Industrial

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/WQCC
TMDL/303d Status: n/a

Resolution Potential: Medium

Further Details

Overview

Aquatic life and recreational uses in this portion of Smoke Creek are known to experience minor impacts due to nutrients attributed to various urban, municipal, and nonpoint sources.

Water Quality Sampling

A biological (macroinvertebrate) assessment of Smoke Creek in Orchard Park (at Route 240) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated the lower range of slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of enrichment are sufficient to cause some stress to aquatic life. Impact source determination found the fauna to be most similar to communities influenced by a mix of point and nonpoint sources. (DEC/DOW, BWAM/SBU, January 2010)

Segment Description

This segment includes the portion of the stream and all tribs above Route 20 near Webster Corners. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also Class C.

South Branch Smoke Cr, Lower, and tribs (0101-0036)

Impaired Seg

Waterbody Location Information

Revised: 06/01/2010

Water Index No: Ont 158..E- 2- 1
Hydro Unit Code: 04120103/040 **Str Class:** C
Waterbody Type: River
Waterbody Size: 27.2 Miles
Seg Description: stream and tribs, from mouth to Orchard Park

Drain Basin: Lake Erie-Niagara River
Buffalo/Eighteenmile
Reg/County: 9/Erie Co. (15)
Quad Map: BUFFALO SOUTHEAST (J-05-3)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
AQUATIC LIFE	Impaired	Known
RECREATION	Impaired	Known
Aesthetics	Stressed	Known

Type of Pollutant(s)

Known: NUTRIENTS (phosphorus), SILT/SEDIMENT, Aesthetics (sludge, debris)
Suspected: - - -
Possible: Pathogens

Source(s) of Pollutant(s)

Known: STREAMBANK EROSION, URBAN/STORM RUNOFF
Suspected: - - -
Possible: Industrial, Other Sanitary Disch

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DOW/Reg9
TMDL/303d Status: 3b (Waterbody Requiring Verification of Cause/Pollutant)

Resolution Potential: Medium

Further Details

Overview

Aquatic life support and recreational uses in this portion of South Branch Smoke Creek are thought to be impaired by nutrient enrichment, silt/sediment loads and other pollutant associated with urban runoff, CSOs and other nonpoint source inputs.

Water Quality Sampling

A biological (macroinvertebrate) assessment of South Branch Smoke Creek in Lackawanna (at South Park Avenue) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated the lower range of slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of enrichment are sufficient to cause some stress to aquatic life. Impact source determination found the fauna to be most similar to communities influenced by nonpoint nutrients and toxics from urban sources and stormwater runoff. (DEC/DOW, BWAR/SBU, June 2010)

These results reflect an improvement from conditions found at this site during sampling conducted in 2000. Sampling results at that time indicated moderately impacted water quality conditions. Impact Source Determination indicated that nonpoint nutrient enrichment was the likely cause of impact. Surrounding land use suggests urban/industrial runoff, streambank erosion and other nonpoint source inputs. (DEC/DOW, BWAR/SBU, April 2003)

Source Assessment

Previous assessments have noted CSOs as a source, however there are no CSOs in the watershed. Some wastewater treatment facilities rely on tanks to capture wet-weather flow for subsequent treatment and, at time of very high wet-weather, these tanks can overflow into the receiving waters. (DEC/BWP, August 2010)

Section 303d Listing

This portion of South Branch Smoke Creek is included on the NYS 2010 Section 303(d) List of Impaired Waters. The lake is included on Part 3 of the List as an impaired for which TMDL development may be deferred due to a need to verify the pollutant. This waterbody was first listed on the 2004 Section 303(d) List. (DEC/DOW, BWAM/WQAS, January 2010)

Segment Description

This segment includes the portion of the stream and all tribs from the mouth to Green Lake (P81b) in Orchard Park. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also C.

South Branch Smoke Cr, Upper, and tribs (0101-0037)

MinorImpacts

Waterbody Location Information

Revised: 06/01/2010

Water Index No: Ont 158..E- 2- 1
Hydro Unit Code: 04120103/040 **Str Class:** B
Waterbody Type: River
Waterbody Size: 4.7 Miles
Seg Description: stream and tribs, above Orchard Park

Drain Basin: Lake Erie-Niagara River
Buffalo/Eighteenmile
Reg/County: 9/Erie Co. (15)
Quad Map: ORCHARD PARK (J-06-4)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Aquatic Life	Stressed	Known
Recreation	Stressed	Known

Type of Pollutant(s)

Known: NUTRIENTS (phosphorus)
Suspected: Pathogens
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: URBAN/STORM RUNOFF
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 3 (Cause Identified, Source Unknown)
Lead Agency/Office: DOW/Reg9
TMDL/303d Status: n/a

Resolution Potential: Medium

Further Details

Overview

Aquatic life support and recreational uses in this portion of South Branch Smoke Creek are known to experience impacts due to nutrient enrichment, silt/sediment loads and other pollutant associated with urban runoff, CSOs and other nonpoint source inputs.

Water Quality Sampling

A biological (macroinvertebrate) assessment of South Branch Smoke Creek in Orchard Park (at Jewett Holmwood Road) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated moderately impacted conditions. In such samples sensitive species are markedly reduced or missing and the distribution of major groups is significantly unbalanced relative to what would be expected. Samples are dominated by more tolerant species. The nutrient biotic index indicates elevated enrichment. However impact source determination reveal a community that is most similar to water experiencing impoundment effects. These effects are known to skew biological sampling results and are not always a true reflection of water quality. Further investigation and/or other indicators are required to determine the actual extent of water quality impacts, if any. (DEC/DOW, BWAM/SBU, January 2010)

Segment Description

This segment includes the portion of the stream and all tribs above Green Lake. The waters of this portion of the stream are Class B. Tribs to this reach/segment are also Class B. Green Lake is listed separately.

Green Lake (0101-0038)

Impaired Seg

Waterbody Location Information

Revised: 05/07/2010

Water Index No: Ont 158..E- 2- 1-P81b
Hydro Unit Code: 04120103/040 **Str Class:** B
Waterbody Type: Lake
Waterbody Size: 18.6 Acres
Seg Description: entire lake

Drain Basin: Lake Erie-Niagara River
Buffalo/Eighteenmile
Reg/County: 9/Erie Co. (15)
Quad Map: ORCHARD PARK (J-06-4)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
PUBLIC BATHING	Impaired	Known
Aquatic Life	Stressed	Suspected
RECREATION	Impaired	Known

Type of Pollutant(s)

Known: NUTRIENTS (phosphorus)
Suspected: D.O./Oxygen Demand, Silt/Sediment
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: URBAN/STORM RUNOFF
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DOW/Reg9
TMDL/303d Status: 1 (Individual Waterbody Impairment Requiring a TMDL)

Resolution Potential: Medium

Further Details

Overview

Public Bathing and other recreational uses in Deer Lake are impaired by elevated nutrient levels and algal blooms thought to be attributed to nonpoint runoff from the surrounding urban/commercial/residential land use.

Water Quality Sampling

Green Lake has been sampled as part of the NYSDEC Lake Classification and Inventory (LCI) Program during the 2005 LCI Screening and 2006 LCI Intensive sampling efforts. An Interpretive Summary report of the findings of this sampling was issued in 2009. This assessment indicates that the lake is best characterized as eutrophic, or highly productive, typical of lakes with low water transparency, high nutrient (primarily phosphorus) levels, and/or a high susceptibility to algal blooms. Phosphorus levels in the lake typically exceed the state guidance values indicating impacted/stressed recreational uses. Corresponding transparency measurements regularly fail to meet the recommended minimum for swimming beaches. Measurements of pH typically fall within the state water quality range of 6.5 to 8.5. The lake water is moderately to highly colored, and color does somewhat limit water transparency. These sampling results are consistent with LCI sampling conducted on the lake in 2001. (DEC/DOW, BWAM/LCI, October 2009)

Recreational Assessment

An assessment of recreational support in the lake conducted during the LCI sampling indicates recreational suitability of the lake to be unfavorable. The recreational suitability of the lake is described most frequently as "significantly impacted/impaired." The lake itself is most often described as "having high algae levels," an assessment that is consistent with measured water quality characteristics. Assessments have noted that rooted aquatic plants do not grow to the lake surface, poor water clarity may have influenced this assessment. (DEC/DOW, BWAM/LCI, October 2009)

Lake Uses

Green Lake is the focal point of the Green Lake/Yates Park in the village of Orchard Park, with a swimming beach on the north side of the lake and active use of the lake for non-power boating and shoreline angling. There is also a Girl Scout camp on the south side of the lake. It is a shallow, turbid lake with water level controlled by a concrete dam along the west side of the lake, draining into the South Branch of Smoke Creek, eventually draining into Lake Erie at Lackawanna. This lake waterbody is designated class B, suitable for use as a public bathing beach, general recreation and aquatic life support, but not as a public water supply. Water quality monitoring by NYSDEC focuses primarily on 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 have not been collected as part of the CSLAP monitoring program. Monitoring to assess potable water supply and public bathing use is generally the responsibility of state and/or local health departments. (DEC/DOW, BWAM/LCI, October 2009)

Section 303d Listing

Green Lake was added to the NYS Section 303(d) List of Impaired Waters in 2010. A listing for the lake for phosphorus was added to Part 1 as a waterbody for which TMDL development is required. (DEC/DOW, BWAM/WQAS, May 2010)

Segment Description

This segment includes the total area of the lake.

Rush Creek and tribs (0104-0018)

Impaired Seg

Waterbody Location Information

Revised: 05/07/2010

Water Index No: Ont 158..E- 3
Hydro Unit Code: 04120103/030 **Str Class:** C
Waterbody Type: River
Waterbody Size: 17.2 Miles
Seg Description: entire stream and tribs

Drain Basin: Lake Erie-Niagara River
Buffalo/Eighteenmile
Reg/County: 9/Erie Co. (15)
Quad Map: BUFFALO SOUTHEAST (J-05-3)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
PUBLIC BATHING	Impaired	Known
AQUATIC LIFE	Impaired	Known
RECREATION	Impaired	Known
Aesthetics	Stressed	Known

Type of Pollutant(s)

Known: PATHOGENS, Aesthetics (sludge banks, odors), Oil and Grease
Suspected: NUTRIENTS (phosphorus), Unknown Toxicity
Possible: D.O./Oxygen Demand, Priority Organics

Source(s) of Pollutant(s)

Known: MUNICIPAL (Hamburg, Blasdell SSOs), URBAN/STORM RUNOFF
Suspected: Other Sanitary Disch
Possible: On-Site/Septic Syst

Resolution/Management Information

Issue Resolvability: 2 (Strategy Exists, Needs Funding/Resources)
Verification Status: 5 (Management Strategy has been Developed)
Lead Agency/Office: DOW/Reg9
TMDL/303d Status: 1 (Individual Waterbody Impairment Requiring a TMDL)

Resolution Potential: Medium

Further Details

Overview

Aquatic life, recreational uses (swimming, fishing) and aesthetics in Rush Creek are restricted by pathogens, nutrients, silt/sediment loads and other pollutant associated with municipal/industrial discharges, urban runoff and other nonpoint source inputs. Poor aesthetics in and along the stream (sludge banks, oil, grease, odors) also discourage uses. However, significant work and anticipated improvements have occurred in recent years; verification of water quality conditions is recommended.

Water Quality Assessment

A biological (macroinvertebrate) assessment of Rush Creek in Blasdell (at Mile Strip Road) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated the lower range of slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of enrichment are sufficient to cause some stress to aquatic life. Impact source determination found the fauna to be most similar to

communities influenced by impoundment effects and nonpoint toxics from urban sources, stormwater runoff. Surrounding land use suggests municipal impacts, urban/industrial runoff and other nonpoint source inputs. (DEC/DOW, BWAM/SBU, May 2010)

A biological assessment of Rush Creek at this site was also conducted in 2000. Sampling results at that time indicated moderately impacted water quality conditions. Impact Source Determination indicated that municipal/industrial inputs of a toxic nature were the likely cause of impact. The more recent sampling suggests some possible water quality improvement, but continued monitoring is necessary to verify this trend. (DEC/DOW, BWAR/SBU, May 2010)

Source Assessment

Periodic wet weather overflows of stormwater impact recreational use in the creek and in the nearby lake shore area at the creek mouth. The Town of Hamburg and the Village of Blasdell are under consent orders to abate SSO discharges to Rush Creek. A revised schedule for reducing or eliminating overflows from the Electric Avenue Pump station is being prepared by Region 9 staff. Erie County is soliciting engineering consultants for the project.

The Erie County Fairground is also under DEC order to eliminate site runoff impacts on Rush Creek. Overflows from the Milestrip Road pump station in the Village of Blasdell were eliminated in 1995. Other sources of impacts to Rush Creek have been addressed. Failing/inadequate on-site septic systems in the residential area of Highland Acres have been addressed. The community was awarded \$1.95 million in CW/CA Bond Act funds and approximately 150 homes were sewered in 1999. The second phase of the project to sewer an additional 30 homes was completed in the Fall of 2004. A consent order to address a discharge from the Erie County Fairgrounds was satisfied in January 1996. (DEC/DOW, BWC and Region 9, February 2005)

In spite of the progress completed and underway to address known sources, Rush Creek remains a suspected source of pollution resulting in beach closures along the Lake Erie shoreline near the mouth of the stream. See also Lake Erie Shoreline (Northeast) segment (0105-0036). The stream enters Lake Erie at Woodlawn Beach. Woodlawn Beach was purchased by NYS and has been developed into a state park and bathing beach. (DEC/DOW, BWAM and Region 9, May 2010)

Section 303d Listing

Rush Creek is included on the NYS 2010 Section 303(d) List of Impaired Waters. The lake is included on Part 1 of the List as an impaired waterbody requiring development of a TMDL to attain water quality standards for phosphorus and pathogens. However this updated assessment suggests that the continuing impairments may be limited to pathogen contamination. Further monitoring is necessary to determine if a delisting of this pollutant is appropriate. This waterbody was first listed on the 2004 Section 303(d) List. (DEC/DOW, BWAM/WQAS, January 2010)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are primarily Class C, with a 1/8 mile reach at the mouth designated Class B. Tribs to this reach/segment are also Class C.