



Keuka Lake (0414020107)

Water Index Number	Waterbody Segment	Category
Ont 66-12-P369-115	Keuka Lake Outlet and tribs (0705-0020)	NoKnownImpct
Ont 66-12-P369-115-P388	Keuka Lake (0705-0003)	Impaired Seg
Ont 66-12-P369..P388- 1 thru 35	Minor Tribs to Keuka Lake, Eastern (0705-0090)	UnAssessed
Ont 66-12-P369..P388-36	Keuka Lake Inlet/Cold Brook and tribs(0705-0091)	NoKnownImpct
Ont 66-12-P369..P388-37 thru 61	Minor Tribs to Keuka Lake, Western (0705-0092)	UnAssessed
Ont 66-12-P369..P388-62	Sugar Creek, Lower, and tribs(0705-0018)	NoKnownImpct
Ont 66-12-P369..P388-62	Sugar Creek, Upper, and tribs (0705-0093)	UnAssessed
Ont 66-12-P369..P388-62 thru 69	Minor Tribs to Keuka Lake, Northern (0705-0094)	UnAssessed

Keuka Lake Outlet and tribs (0705-0020)

NoKnownImpct

Waterbody Location Information

Revised: 08/15/2007

Water Index No: Ont 66-12-P369-115
Hydro Unit Code: 04140201/040 **Str Class:** C
Waterbody Type: River
Waterbody Size: 63.5 Miles
Seg Description: entire stream and tribs

Drain Basin: Oswego-Seneca-Oneida
Seneca/Clyde Rivers
Reg/County: 8/Yates Co. (62)
Quad Map: DRESDEN (K-13-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: ---
Suspected: ---
Possible: ---

Source(s) of Pollutant(s)

Known: ---
Suspected: ---
Possible: ---

Resolution/Management Information

Issue Resolvability: 8 (No Known Use Impairment)
Verification Status: (Not Applicable for Selected RESOLVABILITY)
Lead Agency/Office: n/a **Resolution Potential:** n/a
TMDL/303d Status: n/a

Further Details

A biological (macroinvertebrate) assessment of Keuka Lake Outlet in Dresden (at Kings Landing Road) was conducted in 2001. Sampling results indicated slightly impacted water quality conditions. Results were similar to previous sampling results and indicated some nonpoint source nutrient enrichment. However, nutrient biotic evaluation determined these effects on the fauna to be minor. Aquatic life support is considered to be fully supported in the stream, and there are no other apparent water quality impacts to designated uses. (DEC/DOW, BWAM/SBU, June 2005)

Thought there are no apparent water quality concerns, previous assessments in noted habitat/hydrologic effects on the trout fishery. These effects are the results of the outlet being fed by warmer water from the top of Keuka Lake. These suspected impacts should be re-evaluated.

This segment includes the entire stream and all tribs. The waters of the stream are Class C,C(T). Tribs to this reach/segment are Class D.

Keuka Lake (0705-0003)

No Known Impacts

Waterbody Location Information

Revised: 01/15/2015

Water Index No: Ont 66-12-P369-115-P388 **Drain Basin:** Oswego-Seneca-Oneida
Hydro Unit Code: 0414020107 **Class:** AA(TS) Seneca/Clyde Rivers
Waterbody Type: Lake 11711.8 Acres **Reg/County:** 8/Yates Co. (62)
Seg Description: entire lake

Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Uses Evaluated	Severity	Problem Documentation
Water Supply	Threatened	Suspected
Public Bathing	Fully Supported	Known
Recreation	Fully Supported	Known
Aquatic Life	Fully Supported	Known
Fish Consumption	Fully Supported	Known
Conditions Evaluated		
Habitat/Hydrology	Fully Supported	Known
Aesthetics	Fully Supported	Known

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Unconfirmed: Other Pollutants (various)

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Unconfirmed: Agriculture, Other Source (various)

Management Information

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

Further Details

Overview

Keuka Lake is assessed as having no known impacts; all evaluated uses are considered to be fully supported. Water supply use in the lake may experience minor threats due to various activities in the watershed. The possible threat to water supply use reflects the Class AA(TS) designation of the lake and its particular resource value, rather than specifically identified threats.

Use Assessment

Keuka Lake is designated Class AA(TS), suitable for use as a potable water supply, public bathing beach, general recreation and aquatic life support.

All uses in the lake, including public bathing and other recreation use and aquatic life, are fully supported.

Water supply use is may be threatened by potential sources in the lake watershed identified through a NYSDOH Source Water Assessment Program (SWAP) evaluation. However the evaluation of suspected threats is due in large part to the designation of the lake as a class AA(TS) water, and the desire to protect this high quality water. The NYSDOH SWAP compiles, organizes, and evaluates information regarding possible and actual threats to the quality

of public water supply (PWS) sources. The information contained in SWAP assessment reports assists in the oversight and protection of public water systems. It is important to note that SWAP reports estimate the potential for untreated drinking water sources to be impacted by contamination. These reports do not address the safety or quality of treated finished potable tap water. Drinking water supplies in this waterbody include the Village of Penn Yan and the Village of Hammondsport water supplies. This assessment found an elevated susceptibility to contamination for this source of drinking water. Specifically the amount of agricultural lands in the northern portion of the assessment area results in elevated potential for phosphorus, DBP precursors, and pesticides contamination. While there are some facilities present, permitted discharges do not likely represent an important threat to source water quality based on their density in the assessment area. However, it appears that the total amount of wastewater discharged to surface water in this assessment area is high enough to raise the potential for contamination. Some susceptibility associated with other sources, such as inactive hazardous waste sites and mines, was also noted. (NYSDOH, Source Water Assessment Program, 2004)

Keuka Lake supports an excellent lake trout and smallmouth bass fishery. Lake trout are the most prevalent salmonids, with their population maintained completely by natural reproduction. Rainbows were introduced around the turn of the century and soon became self-sustaining. Landlocked salmon stocking was initiated in Keuka in 1976 and continues today. Direct stocking of browns trout by DEC began in 1980. Forage for Keuka's salmonids is provided by alewives and smelt. Alewives have been present in the lake since the mid-1860's, smelt appeared in the 1960's via unknown sources. (DEC/DFWMR, Region 8, January 2015)

Fish consumption in Keuka Lake had previously been evaluated as impaired due to a NYSDOH health advisory that recommends eating no more than one meal per month of larger (over 25 inches) lake trout because of elevated DDT levels. The source of DDT is assumed to be from past pesticide use in the basin. However more recent testing of lake fish has shown a declining trend and the advisory was lifted in 2014. In addition, fish surveys have noted that larger lake trout (25 in or longer) are exceedingly rare in this lake. Based on this recent information, fish consumption use in the lake is considered fully supporting. (NYSDOH and DEC/DFWMR, Habitat, February 2014).

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 public 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.

Water Quality Information

Keuka Lake was sampled by DEC in 2007 as part of the National Lakes Assessment. These data indicate that the lake is best characterized as oligotrophic, or unproductive. Trophic indicators (phosphorus, chlorophyll a and water clarity) are well within state water quality standards and guidance values indicating no known impacts to recreational uses. These findings also suggest significant water quality improvement (lake productivity decline) over recent decades. Nutrient control measures implemented in the lake watershed are considered the most likely reason for this improvement. The waters of the lake are well oxygenated throughout the growing season. (DEC/DOW, BWAM/LMAS and EPA/National Lake Assessment 2007)

Keuka Lake was also sampled as part of the NYSDEC Finger Lakes Water Quality Study. A 2001 Interpretive Summary report of the findings of this study found conditions that are consistent with the more recent assessment. These data indicated that the lake was best characterized at that time as oligomesotrophic, or between unproductive and moderately productive, with trophic indicators (phosphorus, chlorophyll a and water clarity) well below the state guidance values, indicating no known impacts to recreational uses. (Water Quality Study of the Finger Lakes, DEC/DOW, BWAM, July 2001)

Source Assessment

There are no sources currently causing impacts to the lake. Agricultural activity in the lake watershed has been noted as a potential threat to water quality.

Management Actions

No specific management actions have been identified or deemed necessary for Keuka Lake. A range of general best management practices and other recommendations to restore and protect water quality in all lakes is outlined in the

NYSDEC manual Diet for a Small Lake (NYSDEC/FOLA, 2009). A local watershed group (The Keuka Lake Association) also works to protect the lake. (DEC/DOW, BWAM, January 2014)

303(d) List Information

Keuka Lake is not included on the most recent (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The lake was included on Part 2b of the previous (2012) List as an impaired waterbody due to a fish consumption advisory due to DDT. However the waterbody was removed from the List based on the lifting of the fish consumption health advisory. (DEC/DOW, BWAM, January 2015)

Segment Description

This segment includes the entire lake.

Keuka Lake Inlet/Cold Brook and tribs (0705-0091) NoKnownImpct

Waterbody Location Information

Revised: 08/15/2007

Water Index No: Ont 66-12-P369-115-P388-36 **Drain Basin:** Oswego-Seneca-Oneida
Hydro Unit Code: 04140201/040 **Str Class:** C(TS) Seneca/Clyde Rivers
Waterbody Type: River **Reg/County:** 8/Steuben Co. (51)
Waterbody Size: 48.1 Miles **Quad Map:** HAMMONDSPORT (L-12-1)
Seg Description: entire stream and tribs

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: ---
Suspected: ---
Possible: ---

Source(s) of Pollutant(s)

Known: ---
Suspected: ---
Possible: ---

Resolution/Management Information

Issue Resolvability: 8 (No Known Use Impairment)
Verification Status: (Not Applicable for Selected RESOLVABILITY)
Lead Agency/Office: n/a **Resolution Potential:** n/a
TMDL/303d Status: n/a

Further Details

A biological (macroinvertebrate) assessment of Keuka Lake Inlet/Cold Brook in Hammondsport (at South Valley Road) was conducted in 2001. Sampling results indicated slightly impacted water quality conditions. The sampling results indicated some nonpoint source nutrient enrichment. However, nutrient biotic evaluation determined these effects on the fauna to be minor. Aquatic life support is considered to be fully supported in the stream, and there are no other apparent water quality impacts to designated uses. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the entire stream and all tribs. The waters of the stream are Class C(TS). Tribs to this reach/segment are Class C,C(T).

Sugar Creek, Lower, and tribs (0705-0018)

NoKnownImpct

Waterbody Location Information

Revised: 08/15/2007

Water Index No: Ont 66-12-P369-115-P388-62 **Drain Basin:** Oswego-Seneca-Oneida
Hydro Unit Code: 04140201/040 **Str Class:** C(T) Seneca/Clyde Rivers
Waterbody Type: River **Reg/County:** 8/Yates Co. (62)
Waterbody Size: 43.8 Miles **Quad Map:** PULTENEY (K-12-4)
Seg Description: stream and tribs, from mouth to Guyanoga

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: ---
Suspected: ---
Possible: ---

Source(s) of Pollutant(s)

Known: ---
Suspected: ---
Possible: ---

Resolution/Management Information

Issue Resolvability: 8 (No Known Use Impairment)

Verification Status: (Not Applicable for Selected RESOLVABILITY)

Lead Agency/Office: n/a

Resolution Potential: n/a

TMDL/303d Status: n/a

Further Details

A biological (macroinvertebrate) assessment of Sugar in Branchport (at County House Road) was conducted in 2001. Sampling results indicated non-impacted water quality conditions. The fauna was populated by diversity of clean-water organisms. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the portion of the stream and all tribs from the mouth to/including Big Gully Creek (-7) in Guyanoga. The waters of this portion of the stream are Class C(T),C(TS). Tribs to this reach/segment, including Big Gully Creek (-7) are primarily Class D; with some tribs designated Class C,C(TS). Upper Sugar Creek is listed separately.