



Oswegatchie/Boland Creek Watershed (0415030208)

Water Index Number

SL-25 (portion 4)
 SL-25 (portion 5)
 SL-25- 29
 SL-25- 29- 1
 SL-25- 30 thru 64
 SL-25- 49-P68
 SL-25- 49-P69
 SL-25- 50
 SL-25- 50-P70
 SL-25- 50-P71
 SL-25- 57
 SL-25- 65 thru 75
 SL-25- 69a-P81
 SL-25- 72
 SL-25- 72-P88

Waterbody

Oswegatchie River, Middle, Main Stem (0905-0097)
 Oswegatchie River, Middle, Main Stem (0905-0096)
 Boland Creek and minor tribs (0905-0098)
 White Creek and tribs (0905-0122)
 Minor Tribs to Middle Oswegatchie River (0905-0123)
 Payne Lake (0905-0124)
 Yellow Lake (0905-0125)
 Vrooman Creek and tribs (0905-0126)
 Sherman Lake (0905-0127)
 Moon Lake (0905-0093)
 Malterna Creek and tribs (0905-0128)
 Minor Tribs to Middle Oswegatchie River (0905-0129)
 Chub Lake (0905-0131)
 Turnpike Creek/Sylvia Lk Out and tribs (0905-0100)
 Sylvia Lake (0905-0132)

Category

Need Verific
 Need Verific
 Need Verific
 UnAssessed
 UnAssessed
 UnAssessed
 UnAssessed
 UnAssessed
 UnAssessed
 UnAssessed
 Impaired Seg
 UnAssessed
 UnAssessed
 UnAssessed
 Need Verific
 UnAssessed

Oswegatchie River, Middle, Main Stem (0905-0097)

Need Verific

Waterbody Location Information

Revised: 01/16/2009

Water Index No: SL-25 (portion 4)
Hydro Unit Code: 04150302/100 **Str Class:** B
Waterbody Type: River
Waterbody Size: 33.4 Miles
Seg Description: from Richville to Gouvernor

Drain Basin: Saint Lawrence River
Oswegatchie River
Reg/County: 6/St.Lawrence Co. (45)
Quad Map: RICHVILLE (D-19-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: ---
Suspected: ---
Possible: NUTRIENTS, SILT/SEDIMENT, Pathogens, Pathogens

Source(s) of Pollutant(s)

Known: ---
Suspected: AGRICULTURE
Possible: Comb. Sewer Overflow, Streambank Erosion, Urban/Storm Runoff

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 1 (Waterbody Nominated, Problem Not Verified)
Lead Agency/Office: DOW/BWAM
TMDL/303d Status: n/a

Resolution Potential: Medium

Further Details

Overview

Aquatic life support in this portion of the Oswegatchie River may experience minor impacts due to nutrient loads from agricultural and other nonpoint sources. However due to the lack of specific monitoring data on this reach and the date of the most recent information, conditions in this reach need to be verified.

Previous Assessment

Recreational uses (swimming, boating, etc) and fish habitat in the Oswegatchie River are thought to be stressed by increased siltation/sedimentation and nutrient input from agricultural activity in the area. The watershed is subject to high rates of erosion from row crop production, mainly silage corn. Cropland adjacent to the river is steep and erosive. Manure storage practices are limited. Streambank erosion also contributes to the problem. Pesticides and herbicides are also of concern. (St. Lawrence County SWCD, 1996)

Previous assessments have also cited combined sewer overflows (CSOs) in the Village of Gouverneur as a pollutant source. However BMPs have been implemented and overflow events have decreased significantly. A CSO Long-Term Control Plan is due to be submitted in 2010. (DEC/DOW, BWP, December 2008)

Segment Description

This segment includes the main stem of the river from Boland Creek (-29) in Richville to the RR bridge in Gouverneur. The water of this portion of the stream are Class B. Tribs to this segment are listed separately.

Oswegatchie River, Middle, Main Stem (0905-0096)

Need Verific

Waterbody Location Information

Revised: 01/16/2009

Water Index No: SL-25 (portion 5) **Drain Basin:** Saint Lawrence River
Hydro Unit Code: 04150302/090 **Str Class:** A Oswegatchie River
Waterbody Type: River **Reg/County:** 6/St.Lawrence Co. (45)
Waterbody Size: 28.1 Miles **Quad Map:** EDWARDS (D-19-3)
Seg Description: from Gouvernor to Talcville

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: NUTRIENTS, SILT/SEDIMENT

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: AGRICULTURE, Streambank Erosion

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 1 (Waterbody Nominated, Problem Not Verified)
Lead Agency/Office: DOW/BWAM **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Overview

Aquatic life support in this portion of the Oswegatchie River may experience minor impacts due to nutrient loads from agricultural and other nonpoint sources. However due to the lack of specific monitoring data on this reach and the date of the most recent information, conditions in this reach need to be verified.

Previous Assessment

Recreational uses (swimming, boating, etc) of the Oswegatchie River are thought to be stressed by increased siltation/sedimentation and nutrient input from agricultural activity in the area. This section of the river is classified A for drinking water--a use that may also be threatened. The watershed is subject to high rates of erosion from row crop production, mainly silage corn. Cropland adjacent to the river is steep and erosive. Streambank erosion also contributes to the problem. (However, DEC/DOW Region 6 reported in 1993 that some farms have responded to requests not to grow corn on land that slopes into river.) Pesticides and herbicides are also of concern. (St. Lawrence County SWCD, 1996)

Segment Description

This segment includes the main stem of the river from the RR bridge in Gouverneur to Pork Creek (-75) in Talcville. The water of this portion of the stream are Class A. Tribs to this segment are listed separately.

Boland Creek and minor tribs (0905-0098)

Need Verific

Waterbody Location Information

Revised: 01/21/2009

Water Index No:	SL-25- 29	Drain Basin:	Saint Lawrence River
Hydro Unit Code:	04150302/110	Str Class:	C
Waterbody Type:	River	Reg/County:	6/St.Lawrence Co. (45)
Waterbody Size:	39.3 Miles	Quad Map:	RICHVILLE (D-19-1)
Seg Description:	entire stream and selected tribs		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
RECREATION	Impaired	Suspected

Type of Pollutant(s)

Known: ---
Suspected: PATHOGENS, Aesthetics
Possible: ---

Source(s) of Pollutant(s)

Known: ON-SITE/SEPTIC SYST (Richville, Bigelow)
Suspected: ---
Possible: ---

Resolution/Management Information

Issue Resolvability:	2 (Strategy Exists, Needs Funding/Resources)	Resolution Potential: Medium
Verification Status:	5 (Management Strategy has been Developed)	
Lead Agency/Office:	DOW/Reg6	
TMDL/303d Status:	n/a	

Further Details

Overview

Aquatic life support in Boland Creek is thought to experience minor impacts. These impacts are thought to be the result of failing and/or inadequate residential on-site septic systems; other nonpoint sources may also be contributing to water quality impacts. Although on-site septic sources have been identified, the most recent stream sampling is inconclusive regarding the level of impact.

Water Quality Sampling

A biological (macroinvertebrate) assessment of Boland Creek at Richville (at Main St.) was conducted in 2004 during the RIBS Biological Screening effort in the basin. The sample was collected using a net jab due to soft bottom sediments and absence of riffle habitat. Sampling results indicated poor water quality conditions. The sample was dominated by pollution tolerant aquatic worms. However, due to the less than suitable sampling habitat, additional sampling to verify conditions are recommended. (DEC/DOW, BWAM/SBU, December 2008)

Source Assessment

Impacts to the creek are the result of by failing on-site septic systems that discharge to the creek. Eleven or twelve homes in Bigelow have failing and/or inadequate septic systems which discharge either directly to the creek or to a storm sewer tributary to the creek. The problems have been well documented through complaints received in the NYSDEC Region 6

office. In 1995, DEC and other organizations assisted the Town of DeKalb to resolve the problems. The town's consulting engineer (Tisdell Associates) presented preliminary alternatives to which DEC Region 6 offered comments. However there has been no further progress on addressing the situation. (DEC/DOW Region 6, August 1998)

Further downstream in the Village of Richville a 1991 sanitary survey by the St. Lawrence County Health Department had identified 43 failed septic systems. Corrective action has been taken by the majority of the residents. The local codes enforcement officer and St. Lawrence County Health are monitoring these corrective actions. (St. Lawrence Co. Health, 1996)

Section 303d Listing Boland Creek is not currently included on the NYS 2008 Section 303(d) List of Impaired Waters. It is possible that impacts to the stream rise to the level of impairment and warrant inclusion on the List. However the most current water quality data on this reach of the river is inconclusive regarding the level of impact/impairment. Additional monitoring to verify current conditions in the stream below Bigelow and Richville is necessary to make a listing determination. (DEC/DOW, BWAM/WQAS, June 2008)

Segment Description

This segment includes the entire stream and selected/smaller tribs. The waters of the stream are Class C. Tribs to this reach/segment are also Class C. White Creek (-1) is listed separately.

Moon Lake (0905-0093)

Impaired Seg

Waterbody Location Information

Revised: 12/05/2008

Water Index No:	SL-25- 50-P71	Drain Basin:	Saint Lawrence River
Hydro Unit Code:	04150302/100	Str Class:	C
Waterbody Type:	Lake	Reg/County:	6/Jefferson Co. (23)
Waterbody Size:	230.5 Acres	Quad Map:	MUSKELLUNGE LAKE (D-18-4)
Seg Description:	entire lake		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Aquatic Life	Stressed	Possible
RECREATION	Impaired	Known
Aesthetics	Stressed	Known

Type of Pollutant(s)

Known: NUTRIENTS (phosphorus), Algal/Weed Growth
Suspected: ---
Possible: ---

Source(s) of Pollutant(s)

Known: ---
Suspected: ON-SITE/SEPTIC SYST, Habitat Modification
Possible: ---

Resolution/Management Information

Issue Resolvability:	2 (Strategy Exists, Needs Funding/Resources)	
Verification Status:	5 (Management Strategy has been Developed)	
Lead Agency/Office:	ext/WQCC	Resolution Potential: Medium
TMDL/303d Status:	4a (TMDL Complete, Being Implemented, Not Listed)	

Further Details

Overview

Recreational uses in Moon Lake are impaired by nutrients (phosphorus) and excessive aquatic weed and algal growth. Failing and/or inadequate on-site septic systems serving lakefront residences have been cited as a possible source of nutrient load to the lake. Invasive species (Eurasian water milfoil) also creates impacts to recreation.

Water Quality Sampling

Moon Lake has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 1992 and continuing through 1996. An Interpretive Summary report of the findings of this sampling was published in 1997. These data indicate that the lake continues to be best characterized as eutrophic, or highly productive. Phosphorus levels in the lake are typically at or above the state guidance values indicating impacted/stressed recreational uses, Corresponding transparency measurements typically fail to meet what is the recommended minimum for swimming beaches. Measurements of pH typically fall within the state water quality range of 6.5 to 8.5. (DEC/DOW, BWAM/CSLAP, 1997)

Recreational Assessment

Public perception of the lake and its uses is also evaluated as part of the CSLAP program. This assessment indicates recreational suitability of the lake to be somewhat unfavorable since the lake was first evaluated and continuing through the most recent assessment. The recreational suitability of the lake is described most frequently as "slightly" impacted. The lake itself is most often described as "having an algal greenness," an assessment that is consistent measured water quality characteristics. Assessments have noted that aquatic plants frequently grow to the lake surface and at time are dense enough to impact recreational uses. Aquatic plants are dominated by a mix of native and non-native species (Eurasian water milfoil). (DEC/DOW, BWAM/CSLAP, 1997)

Lake Uses

This lake waterbody is designated class C, suitable for general recreation and aquatic life support, but not as a water supply or public bathing beach. 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.

Section 303d Listing

Moon Lake was included on the NYS 2006 Section 303(d) List of Impaired Waters. However in 2007 USEPA approved a phosphorus TMDL for Moon Lake. As a result, the lake was removed from the 2008 Section 303(d) List and designated a category 4a waterbody - an impaired water for which TMDL development is not necessary because one has already been established. (DEC/DOW, WQAS, December 2008)

Turnpike Creek/Sylvia Lk Out and tribs (0905-0100)

Need Verific

Waterbody Location Information

Revised: 06/17/2009

Water Index No:	SL-25- 72	Drain Basin:	Saint Lawrence River
Hydro Unit Code:	04150302/090	Str Class:	D
Waterbody Type:	River	Reg/County:	6/St.Lawrence Co. (45)
Waterbody Size:	20.2 Miles	Quad Map:	GOUVERNEUR (D-19-4)
Seg Description:	entire stream and tribs		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Fish Consumption	Stressed	Possible
Aquatic Life	Stressed	Suspected

Type of Pollutant(s)

Known: - - -
Suspected: Nutrients
Possible: METALS (zinc)

Source(s) of Pollutant(s)

Known: - - -
Suspected: RESOURCE EXTRACTION (Zinc Corp of America)
Possible: Agriculture

Resolution/Management Information

Issue Resolvability:	1 (Needs Verification/Study (see STATUS))	
Verification Status:	1 (Waterbody Nominated, Problem Not Verified)	
Lead Agency/Office:	DEC/Reg6	Resolution Potential: Medium
TMDL/303d Status:	n/a	

Further Details

Overview

Aquatic life support in Turnpike Creek/Sylvia Lake Outlet is thought to experience minor impacts from zinc due to mine drainage. Whether other or more significant impacts are present is uncertain, due to impoundment effects that may influence sampling results. These possible zinc impacts may also affect fish consumption.

Water Quality Sampling

A biological (macroinvertebrate) assessment of Sylvia Lake Outlet at Fowler (at Sylvia Lake Road) was conducted in 2004 during the RIBS Biological Screening effort in the basin. Sampling results indicated moderately impacted water quality conditions, however impact source determination indicated impoundment effects may have influenced this sample. The macroinvertebrate fauna was dominated by filter feeding caddisflies and non-biting midges. The nutrient biotic index suggested mesotrophic conditions. Impact source determination supported this result and also identified municipal/industrial wastes as another possible stressor. (DEC/DOW, BWAM/SBU, January 2009)

A previous assessment found the fishery in Turnpike Creek to be threatened by heavy metal (zinc) contamination from mine drainage from Zinc Corporation of America. While recent fish surveys of the creek show propagation and survival not to be impacted, numerous water quality studies by NYS DEC (in 1989, 91, 92) found exceedingly high levels of zinc in

the water column, sediment and macroinvertebrate tissue. Additionally, toxicity testing of the creek water produced toxic effects. Because there appeared to be no effect on fish or macroinvertebrate communities, the creek was assessed as a "Threatened Segment." DEC/DOW had recommended that additional toxicity tests be conducted on SPDES discharges to the creek. (DEC/DOW Region 6 and BWAM, and DEC FWMR Region 6, 1996)

Segment Description

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