Waterbody Inventory
for
Upper Saint Lawrence River Watershed

Water Index Number	Waterbody Segment	Category
Saint Lawrence River Watershed, Massena to Ogdensburg		
SL (portion 1)	Saint Lawrence River, Main Stem (0901-0002)	**Impaired Seg**
SL (portion 2)	Saint Lawrence River, Main Stem (0901-0001)	**Impaired Seg**
SL (portion 3)	Saint Lawrence River, Main Stem (0901-0015)	**Impaired Seg**
SL- 3 thru 9	Minor Tribs to St. Lawrence River (0901-0017)	UnAssessed
SL- 5a	Massena Power Canal (0901-0014)	**Impaired Seg**
SL-10	Coles Creek and tribs (0901-0018)	UnAssessed
SL-11	Brandy Brook and tribs (0901-0013)	**Need Verific**
SL-12	Little Sucker Brook and tribs (0901-0019)	UnAssessed
SL-13	Sucker Brook and tribs (0901-0009)	**Need Verific**
SL-14 thru 24	Minor Tribs to St. Lawrence River (0901-0020)	UnAssessed
Oswegatchie River Watershed	Listed Separately (See Below)	
Saint Lawrence River Watershed, Ogdensburg to Lake Ontario		
SL (portion 4)	Saint Lawrence River, Main Stem (0901-0004)	**Impaired Seg**
SL-27 thru 32	Minor Tribs to St.Lawrence (0901-0021)	UnAssessed
SL-33	Chippewa Creek and tribs (0901-0022)	UnAssessed
SL-34 thru 40 (sel.)	Minor Tribs to St.Lawrence (0901-0023)	UnAssessed
SL-36	Crooked Creek and tribs (0901-0024)	UnAssessed
SL-41 thru 55 (sel)	Minor Tribs to St.Lawrence (0901-0025)	UnAssessed
SL-43	Mullet Creek and tribs (0901-0026)	UnAssessed
SL-49	French Creek and minor tribs (0901-0027)	UnAssessed
SL-49- 1	Barrett Creek and tribs (0901-0028)	UnAssessed

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Saint Lawrence River, Main Stem (0901-0002) Impaired Seg

Waterbody Location Information

Revised: 02/13/2009

Water Index No: SL (portion 1)
Hydro Unit Code: 04150301/000 **Str Class:** A-spcl
Waterbody Type: G.Lakes
Waterbody Size: 10.9 ShrMi
Seg Description: from St.Regis to Robert Moses Dam

Drain Basin: Saint Lawrence River
Upper Saint Lawrence
Reg/County: 6/St.Lawrence Co. (45)
Quad Map: MASSENA (B-21-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Impaired	Known
Aquatic Life	Stressed	Suspected
Habitat/Hydrolgy	Stressed	Suspected

Type of Pollutant(s)

Known: PRIORITY ORGANICS (PCBs, dioxin), PESTICIDES (mirex)
Suspected: Water Level/Flow
Possible: - - -

Source(s) of Pollutant(s)

Known: INDUSTRIAL (ALCOA, others), LANDFILL/LAND DISP., Hydro Modification, Tox/Contam. Sediment
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Overview

Fish consumption in this portion of the Saint Lawrence River is impaired by priority organics (PCBs, dioxin) and pesticides (mirex) in river sediments attributed to past discharges, continuing runoff from industrial waste sites and impacts from Lake Ontario sediments. Aquatic life support and habitat/hydrological uses are also thought to experience minor impacts due to flow regulation to support commercial shipping in the river.

Water Quality Sampling

NYSDEC Rotating Intensive Basin Studies (RIBS) Routine Network monitoring (water chemistry) of the Saint Lawrence River in Massena, Saint Lawrence County, is conducted annually at the Robert Moses Dam, at the upstream end of this segment. In addition, when RIBS Intensive Network monitoring is conducted in a targeted basin every five years, additional sampling methods are employed to gain an overall assessment of water quality. This Intensive Network sampling typically includes macroinvertebrate community analysis, sediment assessment, macroinvertebrate tissue analysis and toxicity testing, in addition to water chemistry. The most recent Intensive Network monitoring was

conducted during 2004 (multiplates) and 2005. The biological (macroinvertebrate) assessment conducted in 2004, using artificial substrate samplers suspended in the water column, indicated slightly impacted water quality conditions. Though samplers were deployed three times, only once did the sampler remain in the river for retrieval. That sample was dominated by tolerant freshwater crustaceans and non-biting midges. Water column chemistry found no substances in concentrations that constitute a parameter of concern. Macroinvertebrates collected at this site and chemically analyzed for selected PAHs, PCBs, and organochlorine pesticides also show no contaminants present in concentrations above established guidance values. Chronic toxicity testing using water from this location showed indicated no significant mortality but reproductive effects were noted. Sediment screening for acute toxicity indicated moderate toxicity could be present, but sediments were not found to contain any contaminants at levels of concern and, based on sediment quality guidelines developed for freshwater ecosystems, overall sediment quality is not likely to cause chronic toxicity to sediment-dwelling organisms. Based on the consensus of these established assessment methods, overall water quality at this site shows minor impacts, but supports its aquatic life, recreation, and drinking water supply uses. (DEC/DOW, BWAM/SWMS, December 2008).

Fish Consumption

Fish consumption in the Saint Lawrence River is impaired due to a NYSDOH health advisory that recommends eating no American eel, channel catfish, carp, larger lake trout (over 25 inches) or larger brown trout (over 20 inches). The advisory also recommends that consumption of chinook salmon, white perch, white sucker, rainbow trout, smaller lake and brown trout, and coho salmon (over 25") be limited to no more than one meal per month. The fish consumption advisories, which apply to the entire length of the St. Lawrence (including tribs up to the first impassible barrier) are a result of PCB, mirex and dioxin contamination. An additional advisory prohibits consumption of any fish species from the bay at the St. Lawrence-Franklin County line due to PCB contamination. Advisories for the Saint Lawrence River were first issued prior to 1998-99. (2008-09 NYSDOH Health Advisories and DEC/DFWMR, Habitat, December 2008)

Industrial and Hazardous Waste Sites

The seven mile length of the river below Massena is also significantly affected by activity at a number of industrial facilities in the area. The most prominent of these are ALCOA, Reynolds Metals and General Motors. Numerous separate hazardous waste sites have been identified on ALCOA's 3500 acre facility. Landfills, disposal sites, storm water runoff and waste water discharges from the ALCOA facility have resulted in PCB and other priority pollutant contamination of soils, groundwater, river sediments, fish and wildlife in and along the Lower Grasse and St. Lawrence Rivers. General Motors is under consent order to complete remediation of its Central Foundry Facility (Site No. 6-45-007) to eliminate the release and exposure of PCBs and priority organics to the environment. Remediation of these contaminant sources (including the dredging of river sediments) are in various stages of completion. Reynolds Metals (Site No. 6-45-009) was also under consent order to address PCB contamination at its sites and overland flow and drainage to the St. Lawrence River. The remedial action has been completed and the site is currently under long-term operation, maintenance and monitoring. (Environmental Site Remediation Database, DEC/DER, December 2008)

Saint Lawrence/Massena Remedial Action Plan

The St. Lawrence River at Massena Remedial Action Plan (RAP) Area of Concern (AoC) begins above the power dam facilities and seaway locks at the Massena Village drinking water intake and follows the river downstream for about fifteen miles to the international border. For New York State, the AoC includes portions of the Grass, Raquette and St. Regis Rivers. There are three governmental agency groupings that share jurisdictional responsibilities for the AoC. These are the United States, Canada, and the St. Regis Mohawk Tribe at Akwesasne.

Pollution from past local area industrial production and waste disposal practices created contaminated sediments and hazardous waste sites that to a large degree are being or have been remediated. The sources and causes include PCBs, mercury, DDE, Mirex, nutrients, metals and physical disturbance. Large area remedial projects at Alcoa and General Motors sites have contributed significantly to the restoration and protection of beneficial uses in the AoC. After the Grass River and limited land-based remedial measures are completed, a reassessment of the status of the beneficial use indicators is to be conducted. When including the installation of water and air pollution discharge equipment, the total costs of the Massena area cleanup will likely exceed one billion dollars.

Habitat/Hydrologic Impacts

The management of water levels and flows of the river to support commercial navigation also affects the fishery habitat. The International Joint Commission (IJC) recently called for a new management plan that supports more natural river flows that support fish and wildlife habitat and recreation benefits. The Moses-Saunders Dam was constructed in 1958 for hydropower and to aid commercial navigation on the St. Lawrence River. However the management plan to control water levels on the river and Lake Ontario was developed at a time when there was less consideration of environmental impacts. Research shows that the current plan, which severely limits natural water level fluctuations, has significantly reduced the diversity of plant species in river wetlands, which in turn has impacted populations of many fish and other wildlife. However, these conditions can be reversed by allowing the river to have a more natural flow. A revised management plan can significantly improve the health of the river while continuing to serve commercial interests. (International Joint Commission and American Rivers, December 2008)

Segment Description

This segment includes the waters of the Saint Lawrence within New York State from the Canadian border at St. Regis to the Robert Moses Dam.

Saint Lawrence River, Main Stem (0901-0001) Impaired Seg

Waterbody Location Information

Revised: 02/13/2009

Water Index No:	SL (portion 2)			**Drain Basin:**	Saint Lawrence River
Hydro Unit Code:	04150301/000	**Str Class:**	A-spcl		Upper Saint Lawrence
Waterbody Type:	G.Lakes			**Reg/County:**	6/St.Lawrence Co. (45)
Waterbody Size:	42.9 ShrMi			**Quad Map:**	MASSENA (B-21-1)
Seg Description:	from Robert Moses Dam to Waddington				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Impaired	Known
Aquatic Life	Stressed	Suspected
Habitat/Hydrolgy	Stressed	Suspected

Type of Pollutant(s)

Known:	PRIORITY ORGANICS (dioxin), PESTICIDES (mirex)
Suspected:	Water Level/Flow
Possible:	- - -

Source(s) of Pollutant(s)

Known:	TOX/CONTAM. SEDIMENT, Hydro Modification
Suspected:	- - -
Possible:	Industrial

Resolution/Management Information

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

Further Details

Overview
Fish consumption in this portion of the Saint Lawrence River is impaired by priority organics (PCBs, dioxin) and pesticides (mirex) in river sediments attributed to past discharges, continuing runoff from industrial waste sites and impacts from Lake Ontario sediments. Aquatic life support and habitat/hydrological uses are also thought to experience minor impacts due to flow regulation to support commercial shipping in the river.

Water Quality Sampling
NYSDEC Rotating Intensive Basin Studies (RIBS) Routine Network monitoring (water chemistry) of the Saint Lawrence River in Massena, Saint Lawrence County, is conducted annually at the Robert Moses Dam, at the downstream end of this segment. In addition, when RIBS Intensive Network monitoring is conducted in a targeted basin every five years, additional sampling methods are employed to gain an overall assessment of water quality. This Intensive Network sampling typically includes macroinvertebrate community analysis, sediment assessment, macroinvertebrate tissue analysis and toxicity testing, in addition to water chemistry. The most recent Intensive Network monitoring was conducted during 2004 (multiplates) and 2005. The biological (macroinvertebrate) assessment conducted in 2004, using

artificial substrate samplers suspended in the water column, indicated slightly impacted water quality conditions. Though samplers were deployed three times, only once did the sampler remain in the river for retrieval. That sample was dominated by tolerant freshwater crustaceans and non-biting midges. Water column chemistry found no substances in concentrations that constitute a parameter of concern. Macroinvertebrates collected at this site and chemically analyzed for selected PAHs, PCBs, and organochlorine pesticides also show no contaminants present in concentrations above established guidance values. Chronic toxicity testing using water from this location showed indicated no significant mortality but reproductive effects were noted. Sediment screening for acute toxicity indicated moderate toxicity could be present, but sediments were not found to contain any contaminants at levels of concern and, based on sediment quality guidelines developed for freshwater ecosystems, overall sediment quality is not likely to cause chronic toxicity to sediment-dwelling organisms. Based on the consensus of these established assessment methods, overall water quality at this site shows minor impacts, but supports its aquatic life, recreation, and drinking water supply uses. (DEC/DOW, BWAM/SWMS, December 2008).

Fish Consumption

Fish consumption in the Saint Lawrence River is impaired due to a NYSDOH health advisory that recommends eating no American eel, channel catfish, carp, larger lake trout (over 25 inches) or larger brown trout (over 20 inches). The advisory also recommends that consumption of chinook salmon, white perch, white sucker, rainbow trout, smaller lake and brown trout, and coho salmon (over 25") be limited to no more than one meal per month. The fish consumption advisories, which apply to the entire length of the St. Lawrence (including tribs up to the first impassible barrier) are a result of PCB, mirex and dioxin contamination. An additional advisory prohibits consumption of any fish species from the bay at the St. Lawrence-Franklin County line due to PCB contamination. Advisories for the Saint Lawrence River were first issued prior to 1998-99. (2008-09 NYSDOH Health Advisories and DEC/DFWMR, Habitat, December 2008)

Habitat/Hydrologic Impacts

The management of water levels and flows of the river to support commercial navigation also affects the fishery habitat. The International Joint Commission (IJC) recently called for a new management plan that supports more natural river flows that support fish and wildlife habitat and recreation benefits. The Moses-Saunders Dam was constructed in 1958 for hydropower and to aid commercial navigation on the St. Lawrence River. However the management plan to control water levels on the river and Lake Ontario was developed at a time when there was less consideration of environmental impacts. Research shows that the current plan, which severely limits natural water level fluctuations, has significantly reduced the diversity of plant species in river wetlands, which in turn has impacted populations of many fish and other wildlife. However, these conditions can be reversed by allowing the river to have a more natural flow. A revised management plan can significantly improve the health of the river while continuing to serve commercial interests. (International Joint Commission and American Rivers, December 2008)

Segment Description

This segment includes the waters of the Saint Lawrence from the Robert Moses Dam to Clark Point in Waddington, portion known as Lake Saint Lawrence.

Saint Lawrence River, Main Stem (0901-0015) Impaired Seg

Waterbody Location Information

Revised: 12/29/2008

Water Index No:	SL (portion 3)	**Drain Basin:**	Saint Lawrence River
Hydro Unit Code:	04150301/000 **Str Class:** A-Spcl		Upper Saint Lawrence
Waterbody Type:	G.Lakes	**Reg/County:**	6/St.Lawrence Co. (45)
Waterbody Size:	30.8 ShrMi	**Quad Map:**	SPARROWHAWK POINT (B-19-3)
Seg Description:	from Waddington to Ogdensburg		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Impaired	Known
Recreation	Stressed	Known
Habitat/Hydrolgy	Stressed	Suspected

Type of Pollutant(s)

Known: PRIORITY ORGANICS (PCBs, dioxin), PESTICIDES (mirex)
Suspected: Water Level/Flow
Possible: - - -

Source(s) of Pollutant(s)

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

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Medium
TMDL/303d Status: n/a->2b*

Further Details

Overview
Fish consumption in this portion of the Saint Lawrence River is impaired by priority organics (PCBs, dioxin) and pesticides (mirex) in river sediments attributed to past discharges, continuing runoff from industrial waste sites and impacts from Lake Ontario sediments. Habitat/hydrological uses are also thought to experience minor impacts due to flow regulation to support commercial shipping in the river.

Fish Consumption
Fish consumption in the Saint Lawrence River is impaired due to a NYSDOH health advisory that recommends eating no American eel, channel catfish, carp, larger lake trout (over 25 inches) or larger brown trout (over 20 inches). The advisory also recommends that consumption of chinook salmon, white perch, white sucker, rainbow trout, smaller lake and brown trout, and coho salmon (over 25") be limited to no more than one meal per month. The fish consumption advisories, which apply to the entire length of the St. Lawrence (including tribs up to the first impassible barrier) are a result of PCB, mirex and dioxin contamination. An additional advisory prohibits consumption of any fish species from the bay at the St. Lawrence-Franklin County line due to PCB contamination. Advisories for the Saint Lawrence River

were first issued prior to 1998-99. (2008-09 NYSDOH Health Advisories and DEC/DFWMR, Habitat, December 2008)

Habitat/Hydrologic Impacts

The management of water levels and flows of the river to support commercial navigation also affects the fishery habitat. The International Joint Commission (IJC) recently called for a new management plan that supports more natural river flows that support fish and wildlife habitat and recreation benefits. The Moses-Saunders Dam was constructed in 1958 for hydropower and to aid commercial navigation on the St. Lawrence River. However the management plan to control water levels on the river and Lake Ontario was developed at a time when there was less consideration of environmental impacts. Research shows that the current plan, which severely limits natural water level fluctuations, has significantly reduced the diversity of plant species in river wetlands, which in turn has impacted populations of many fish and other wildlife. However, these conditions can be reversed by allowing the river to have a more natural flow. A revised management plan can significantly improve the health of the river while continuing to serve commercial interests. (International Joint Commission and American Rivers, December 2008)

Segment Description

This segment includes the waters of the Saint Lawrence from Clark Point in Waddington to the Oswegatchie River in Ogdensburg.

Massena Power Canal (0901-0014) Impaired Seg

Waterbody Location Information

Revised: 12/31/2008

Water Index No: SL- 5a
Hydro Unit Code: 04150301/050 **Str Class:** C
Waterbody Type: River
Waterbody Size: 3.5 Miles
Seg Description: entire canal

Drain Basin: Saint Lawrence River
Upper Saint Lawrence
Reg/County: 6/St.Lawrence Co. (45)
Quad Map: MASSENA (B-21-1)

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: INDUSTRIAL (ALCOA), TOX/CONTAM. SEDIMENT
Suspected: - - -
Possible: Landfill/Land Disp. (ALCOA)

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:** Medium
TMDL/303d Status: 2b (Multiple Segment/Categorical Water, Fish Consumption)

Further Details

Overview
Fish consumption in the Massena Power Canal is impaired by priority organics (PCBs) in river sediments attributed to past industrial discharges.

Fish Consumption
Fish consumption in the Massena Power Canal is impaired due to a NYSDOH health advisory that recommends eating no more than one meal per month of smallmouth bass due to PCB contamination. Advisories for the Massena Power Canal were first issued prior to 1998-99. (2008-09 NYSDOH Health Advisories and DEC/DFWMR, Habitat, December 2008)

A general refuse landfill on ALCOA property was the source of contamination to the canal. The remediation of the site (Site No. 6-45-002) was completed in 1995. ALCOA will continue to monitor this site. There are no current plans to remediate the Power Canal. (Environmental Site Remediation Database, DEC\DER, December 2008)

Segment Description
This segment includes the entire canal , from the Saint Lawrence River (Lake Saint Lawrence) to the Grass River.

Brandy Brook and tribs (0901-0013) Need Verific

Waterbody Location Information

Revised: / /

Water Index No: SL-11
Hydro Unit Code: 04150301/050 **Str Class:** C
Waterbody Type: River
Waterbody Size: 56.2 Miles
Seg Description: entire stream and tribs

Drain Basin: Saint Lawrence River
Upper Saint Lawrence
Reg/County: 6/St.Lawrence Co. (45)
Quad Map: WADDINGTON (B-20-4)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: SILT/SEDIMENT
Possible: Nutrients

Source(s) of Pollutant(s)

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

Resolution/Management Information

Issue Resolvability: ()
Verification Status: (Not Applicable for Selected RESOLVABILITY)
Lead Agency/Office: ext/ **Resolution Potential:** n/a
TMDL/303d Status: n/a

Further Details

The fishery (particularly walleye) in Brandy Brook may be affected by silt and sedimentation resulting from agricultural activity in the watershed. The stream did at one time support walleye spawning, however significant sediment plumes (shown in New York Power Authority aerial photographs) raise concerns about current and/or future support of the fishery. (DEC/DFWMR Region 6)

The county reports there are 118 farms in the 24,250 acre watershed. Voluntary participation in currently funded programs to address agricultural sedimentation are effective in reducing sediment and nutrient loading to the stream. With water quality improvement, the stream could be a candidate for NYPA habitat improvement projects. (St. Lawrence Co. WQCC, May 1998) 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.

Sucker Brook and tribs (0901-0009) Need Verific

Waterbody Location Information

Revised: / /

Water Index No: SL-13
Hydro Unit Code: 04150301/050 **Str Class:** C
Waterbody Type: River
Waterbody Size: 66.2 Miles
Seg Description: entire stream and tribs

Drain Basin: Saint Lawrence River
Upper Saint Lawrence
Reg/County: 6/St.Lawrence Co. (45)
Quad Map: WADDINGTON (B-20-4)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: SILT/SEDIMENT, Nutrients

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: AGRICULTURE, On-Site/Septic Syst

Resolution/Management Information

Issue Resolvability: ()
Verification Status: (Not Applicable for Selected RESOLVABILITY)
Lead Agency/Office: DOW/ **Resolution Potential:** n/a
TMDL/303d Status: n/a

Further Details

DEC Regional Fisheries has noted high turbidity in the stream, most likely attributed to agricultural activity and runoff. The Sucker Brook watershed has a large concentration of dairy cattle, with dairy operations in generally close proximity to much of the creek and its tributaries. The St. Lawrence County SWCD reports a large number of beaver dams on the creek as well. (DEC/DOW, Region 6, July 1993)

One source of impairment was addressed when the Lisbon municipal wastewater treatment went on line in December 1996. (DEC/DOW, Region6, September 1998) This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment, including Squaw Brook (-2), are also Class C.

Saint Lawrence River, Main Stem (0901-0004) Impaired Seg

Waterbody Location Information

Revised: 12/29/2008

Water Index No: SL (portion 4)
Hydro Unit Code: 04150301/000 **Str Class:** A-Spcl
Waterbody Type: G.Lakes
Waterbody Size: 100.1 ShrMi
Seg Description: from Ogdensburg to Lake Ontario

Drain Basin: Saint Lawrence River
Upper Saint Lawrence
Reg/County: 6/St.Lawrence Co. (45)
Quad Map: OGDENSBURG WEST (C-18-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Impaired	Known
Recreation	Stressed	Known
Habitat/Hydrolgy	Stressed	Suspected
UnAssessed Water		

Type of Pollutant(s)

Known: PRIORITY ORGANICS (PCBs, dioxin), PESTICIDES (mirex)
Suspected: Algal/Weed Growth, Water Level/Flow
Possible: Pathogens

Source(s) of Pollutant(s)

Known: TOX/CONTAM. SEDIMENT
Suspected: Hydro Modification, On-Site/Septic Syst
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Medium
TMDL/303d Status: n/a->2b*

Further Details

Overview

Fish consumption in this portion of the Saint Lawrence River is impaired by priority organics (PCBs, dioxin) and pesticides (mirex) in river sediments attributed to past discharges, continuing runoff from industrial waste sites and impacts from Lake Ontario sediments. Habitat/hydrological uses are also thought to experience minor impacts due to flow regulation to support commercial shipping in the river.

Fish Consumption

Fish consumption in the Saint Lawrence River is impaired due to a NYSDOH health advisory that recommends eating no American eel, channel catfish, carp, larger lake trout (over 25 inches) or larger brown trout (over 20 inches). The advisory also recommends that consumption of chinook salmon, white perch, white sucker, rainbow trout, smaller lake and brown trout, and coho salmon (over 25") be limited to no more than one meal per month. The fish consumption advisories, which apply to the entire length of the St. Lawrence (including tribs up to the first impassible barrier) are a result of PCB, mirex and dioxin contamination. An additional advisory prohibits consumption of any fish species from

the bay at the St. Lawrence-Franklin County line due to PCB contamination. Advisories for the Saint Lawrence River were first issued prior to 1998-99. (2008-09 NYSDOH Health Advisories and DEC/DFWMR, Habitat, December 2008)

Habitat/Hydrologic Impacts

The management of water levels and flows of the river to support commercial navigation also affects the fishery habitat. The International Joint Commission (IJC) recently called for a new management plan that supports more natural river flows that support fish and wildlife habitat and recreation benefits. The Moses-Saunders Dam was constructed in 1958 for hydropower and to aid commercial navigation on the St. Lawrence River. However the management plan to control water levels on the river and Lake Ontario was developed at a time when there was less consideration of environmental impacts. Research shows that the current plan, which severely limits natural water level fluctuations, has significantly reduced the diversity of plant species in river wetlands, which in turn has impacted populations of many fish and other wildlife. However, these conditions can be reversed by allowing the river to have a more natural flow. A revised management plan can significantly improve the health of the river while continuing to serve commercial interests. (International Joint Commission and American Rivers, December 2008)

Recreational Assessments

Excessive algal and aquatic weed growth in the shallow warmwater embayments along this length of the Saint Lawrence that affects recreational uses is also of concern. The excessive weed growth has been attributed to high nutrient loads resulting from extensive development around the bay. In the past NYSDOH and "Save The River" have documented the failure of on-site systems serving cottages along the bay shore. Goose Bay and Lake of the Isles have been noted in past assessments has having such impacts. (DEC/DOW, Region 6 and Save the River, 1998)

Segment Description

This segment includes the waters of the Saint Lawrence from the Oswegatchie River in Ogdensburg to the outlet of Lake Ontario. This segment also includes a number of embayments of the river.