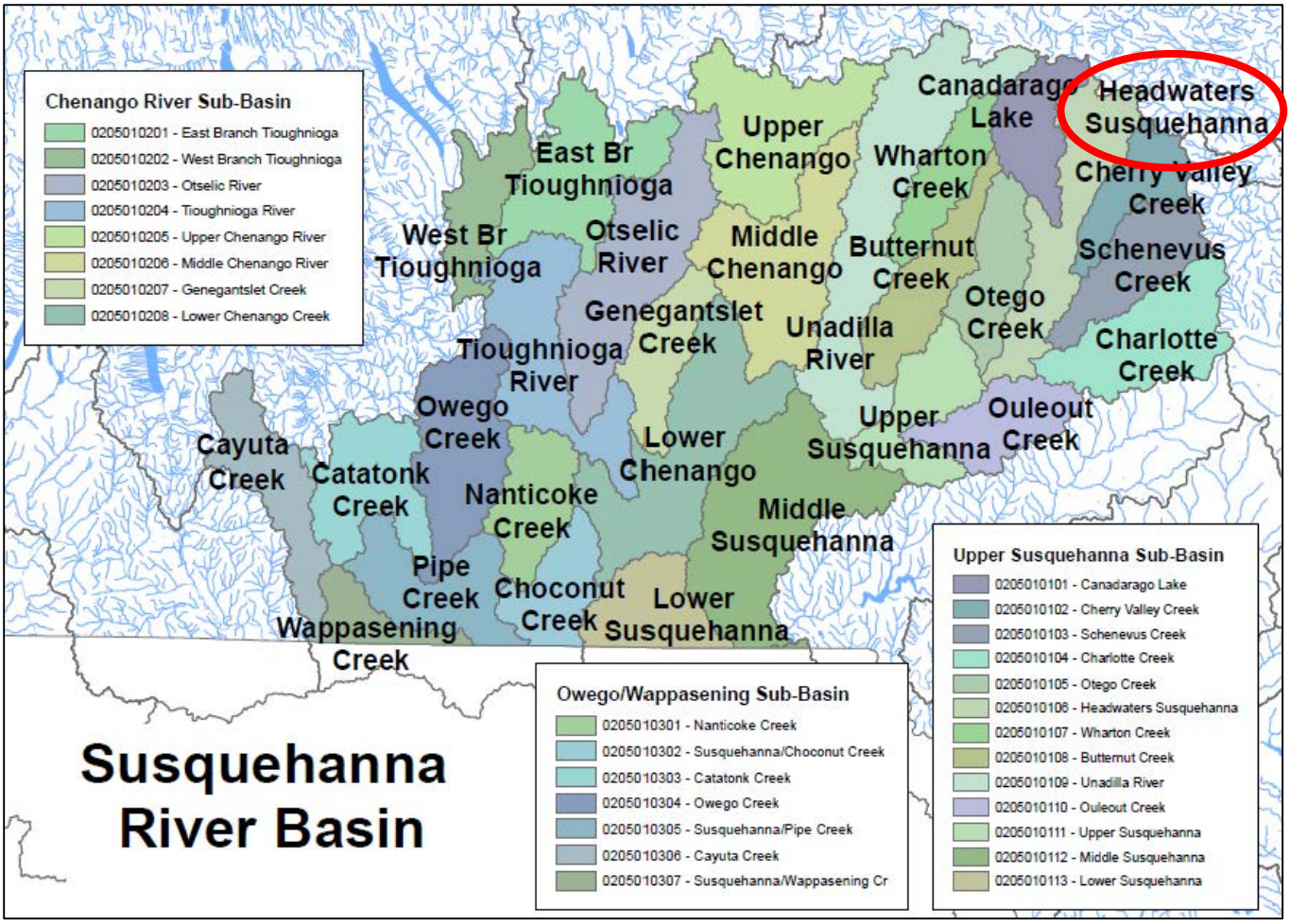

Headwaters Susquehanna River Watershed
(0205010106)

Water Index Number	Waterbody Segment	Category
SR (portion 8)/P360	Goodyear Lake (0601-0015)	Impaired Seg
SR (portion 9)	Susquehanna River, Upper, Main Stem (0601-0041)	Impaired Seg
SR-173 thru 185	Minor Tribs to Susquehanna River (0601-0192)	UnAssessed
SR-179	Oneonta Creek, Upper, and tribs (0601-0166)	Need Verific
SR-179-P295	Oneonta Lower Reservoir (0601-0097)	Need Verific
SR-179-P297	Wilber Lake (0601-0098)	NoKnownImpct
SR-183	*See Charlotte Creek Watershed*	
SR-187	*See Schenevus Creek Watershed*	
SR-188 thru 207 (selected)	Minor Tribs to Susquehanna River (0601-0194)	UnAssessed
SR-190-P362	Arnold Lake (0601-0109)	NoKnownImpct
SR-191a-P363	Saddlebag Lake (0601-0116)	UnAssessed
SR-193-P366	Crumhorn Lake (0601-0110)	UnAssessed
SR-195	*See Cherry Valley Creek Watershed*	
SR-196-2-P378	Little (Goey) Pond (0601-0112)	UnAssessed
SR-204	*See Canadarago Lake Watershed*	

Water Index Number	Waterbody Segment	Category
SR-P404	Otsego Lake (0601-0033)	NoKnownImpct
SR-P404-	Minor Tribs to Otsego Lake (0601-0179)	UnAssessed
SR-P404- 9-P405	Allen Lake (0601-0117)	NoKnownImpct
SR-P404-10	Cripple Creek and tribs (0601-0027)	Need Verific
SR-P404-10-P408	Young Lake (0601-0026)	Need Verific
SR-P404-10-P409	Weaver Lake (Maumee Swamp) (0601-0025)	Need Verific
SR-P404-10-P409-	Minor Tribs to Weaver Lake (0601-0039)	Minor Impacts
SR-P404-11-P406	Clarke Pond (0601-0118)	UnAssessed
SR-P404-12	Hayden Creek and tribs (0601-0180)	Need Verific
SR-P404-12-P411	Summit Lake (0601-0119)	UnAssessed
SR-P404-14	Shadow Brook and tribs (0601-0181)	Need Verific

Goodyear Lake (0601-0015) Impaired Seg

Waterbody Location Information

Revised: 06/26/2001

Water Index No: SR (portion 8)/P360
Hydro Unit Code: 02050101/030 **Str Class:** B
Waterbody Type: Lake
Waterbody Size: 352.2 Acres
Seg Description: entire lake

Drain Basin: Susquehanna River
Upper Susquehanna
Reg/County: 4/Otsego Co. (39)
Quad Map: MILFORD (K-21-4)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Public Bathing	Stressed	Suspected
FISH CONSUMPTION	Impaired	Suspected
Recreation	Stressed	Known
Aesthetics	Stressed	Known

Type of Pollutant(s)

Known: - - -
Suspected: METALS (mercury), Algal/Weed Growth (vegetation, algal blooms), Nutrients, Silt/Sediment
Possible: Pathogens

Source(s) of Pollutant(s)

Known: - - -
Suspected: ATMOSPH. DEPOSITION, On-Site/Septic Syst
Possible: Agriculture, Unknown Source

Resolution/Management Information

Issue Resolvability: 3 (Strategy Being Implemented)
Verification Status: 5 (Management Strategy has been Developed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Medium
TMDL/303d Status: 4a (TMDL Complete, Being Implemented, Not Listed)

Further Details

Overview

Fish consumption in the Goodyear Lake portion of the Susquehanna River is known to be impaired due to a health advisory that recommend restricting the consumption of fish from the river because of elevated mercury levels. Atmospheric deposition is the likely source of the mercury contamination. Recreational uses are also thought to experience minor impacts due to algal blooms and weed growth.

Fish Consumption Advisories

Fish consumption in this portion of the Susquehanna is impaired by a health advisory for the entire river due to mercury contamination. The advisory recommends eating no more than one meal per month of larger walleye (over 22 inches). NYS DOH indicates elevated mercury levels have been documented in the river in the vicinity of Owego, Johnson City, Kirkwood and Bainbridge. Although monitoring data above that point is not available, this reach is included in the advisory as a precaution. Atmospheric deposition is considered a likely source of the mercury contamination. Other sources have not been identified. (2009-10 NYS DOH Health Advisories).

Previous Assessment
Public Bathing and other recreational uses (swimming, boating) in Goodyear Lake are thought to be affected by high nutrient levels and resulting algal blooms and excessive aquatic vegetation. Failing and/or inadequate on-site septic systems are considered a likely source of pollutants. Nutrients loading from the Cherry Valley Creek watershed is also considered to be significant. (DEC/DOW, Region 4, January 2001)

Section 303(d) Listing
Due to the fish consumption advisory this portion of Susquehanna River was included in the 2006 Section 303(d) List of Impaired Waters, but it is not included on the 2008 List. Though the waterbody remains impaired, it was delisted in 2008 due to the completion of the Northeast Regional Mercury TMDL which was approved in 2007 and provides coverage for this specific waterbody. (DEC/DOW, BWAM, January 2009)

Segment Description
This segment includes the total area of the entire lake.

Susquehanna River, Upper, Main Stem (0601-0041) Impaired Seg

Waterbody Location Information

Revised: 09/17/2009

Water Index No: SR (portion 9)
Hydro Unit Code: 02050101/030 **Str Class:** B
Waterbody Type: River (Low Flow)
Waterbody Size: 20.8 Miles
Seg Description: above Portlandville to Cooperstown

Drain Basin: Susquehanna River
Upper Susquehanna
Reg/County: 4/Otsego Co. (39)
Quad Map: MILFORD (K-21-4) ...

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Impaired	Suspected
Aquatic Life	Stressed	Possible

Type of Pollutant(s)

Known: - - -
Suspected: METALS (mercury), Unknown Toxicity
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: ATMOSPH. DEPOSITION
Possible: Agriculture, Unknown Source

Resolution/Management Information

Issue Resolvability: 3 (Strategy Being Implemented)
Verification Status: 5 (Management Strategy has been Developed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Medium
TMDL/303d Status: 4a (TMDL Complete, Being Implemented, Not Listed)

Further Details

Overview
Fish consumption in this portion of the Susquehanna River is thought to be impaired due to a health advisory that recommend restricting the consumption of fish from the river because of elevated mercury levels. Atmospheric deposition is the likely source of the mercury contamination.

Fish Consumption Advisories
Fish consumption in this portion of the Susquehanna is impaired by a health advisory for the entire river due to mercury contamination. The advisory recommends eating no more than one meal per month of larger walleye (over 22 inches). NYS DOH indicates elevated mercury levels have been documented in the river in the vicinity of Owego, Johnson City, Kirkwood and Bainbridge. Although monitoring data above that point is not available, this reach is included in the advisory as a precaution. Atmospheric deposition is considered a likely source of the mercury contamination. Other sources have not been identified. (2009-10 NYS DOH Health Advisories).

Water Quality Sampling
NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Susquehanna River in Hyde Park,

Otsego County, (at Route11C) was conducted in 2004. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, sediment and invertebrate tissues analysis and toxicity evaluation. During this sampling the biological (macroinvertebrate) sampling results indicated slightly impacted water quality conditions, indicating good water quality. Water column sampling revealed no parameters of concern to be present. Sediment screening for acute toxicity indicated slight sediment toxicity but no porewater toxicity was indicated. While sediment sampling revealed some contaminants at low levels, based on sediment quality guidelines developed for freshwater ecosystems, overall sediment quality is not likely to cause chronic toxicity to sediment-dwelling organisms. Macroinvertebrates collected at this site and chemically analyzed for selected metals showed elevated levels of metals that should continue to be monitored. Toxicity testing using water from this location showed no significant mortality or reproductive effects on the test organism. Based on the consensus of these established assessment methods, overall water quality at this site shows some minor impacts but aquatic life is considered to be fully supported in the stream. (DEC/DOW, BWAR/RIBS, August 2009)

The biological assessment of the Susquehanna River in Hyde Park noted above was collected above confluence with Oaks Creek. Sampling results indicated slightly impacted conditions. In such samples the community is slightly altered from natural conditions. Some sensitive species are not present and a the overall abundance of macroinvertebrates is lower. However, the effects on the fauna appear to be (relatively) insignificant and water quality is considered to be good. The nutrient biotic index and impact source determination indicate low enrichment in the stream and fauna that is most similar to natural communities. 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, January 2009)

Previous RIBS Intensive Network monitoring of the river was conducted at Hartwick in 1998. The overall water quality at the site was assessed as good. No significant chemical parameters of concern were found at the sites and a fishery assessment indicated an abundant, diverse and healthy fishery. (DEC/DOW, BWAR/RIBS, 1999)

Section 303(d) Listing

Due to the fish consumption advisory this portion of Susquehanna River was included in the 2006 Section 303(d) List of Impaired Waters, but it is not included on the 2008 List. Though the waterbody remains impaired, it was delisted in 2008 due to the completion of the Northeast Regional Mercury TMDL which was approved in 2007 and provides coverage for this specific waterbody. (DEC/DOW, BWAM, January 2009)

Segment Description

This segment includes the main stem portion of the river from Goodyear Lake in Portlandville to Ostego Lake in Cooperstown. This reach of the river is Class B.

Oneonta Creek, Upper, and tribs (0601-0166) Need Verific

Waterbody Location Information

Revised: 06/12/2009

Water Index No: SR-179
Hydro Unit Code: 02050101/120 **Str Class:** A
Waterbody Type: River
Waterbody Size: 8.5 Miles
Seg Description: stream and tribs above Oneonta

Drain Basin: Susquehanna River
Upper Susquehanna
Reg/County: 4/Otsego Co. (39)
Quad Map: ()

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Threatened	Suspected

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: PATHOGENS

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
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/DOW **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Overview
Water supply uses of the Oneonta Lower Reservoir and Upper Oneonta Creek are thought to experience threats from pathogens due to the level of agricultural pasturelands in the watershed. Current information does not indicate any impacts to water supply or other uses, but the use of the resources as a water supply and the activities in the watershed suggest additional protection efforts are appropriate.

Source (Drinking) Water Assessment
A source water assessment of the Upper Oneonta Creek watershed found an elevated susceptibility to pathogen contamination due to the high amount of pastureland in the watershed. This assessment was conducted through the NYSDOH Source Waters Assessment Program (SWAP) which 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 and do not address the quality of treated finished potable tap water. This water supply source provides water to the City of Oneonta. (NYSDOH, Source Water Assessment Program, 2005)

Segment Description

This segment includes the portion of the stream and all tribs above Lower Reservoir (P295) near Oneonta. The waters of this portion of the stream are Class A. Tribs to this reach/segment are also Class A. Lower Oneonta Creek is listed with Minor Tribs to Susquehanna River.

Oneonta Lower Reservoir (0601-0097) Need Verific

Waterbody Location Information

Revised: 06/12/2009

Water Index No: SR-179-P295
Hydro Unit Code: 02050101/120 **Str Class:** A
Waterbody Type: Lake(R)
Waterbody Size: 5.3 Acres
Seg Description: entire lake

Drain Basin: Susquehanna River
Upper Susquehanna
Reg/County: 4/Otsego Co. (39)
Quad Map: ONEONTA (L-20-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Threatened	Suspected

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: PATHOGENS

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
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/DOW **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Overview
Water supply uses of the Oneonta Lower Reservoir and Upper Oneonta Creek are thought to experience threats from pathogens due to the level of agricultural pasturelands in the watershed. Current information does not indicate any impacts to water supply or other uses, but the use of the resources as a water supply and the activities in the watershed suggest additional protection efforts are appropriate.

Source (Drinking) Water Assessment
A source water assessment of the Upper Oneonta Creek watershed found an elevated susceptibility to pathogen contamination due to the high amount of pastureland in the watershed. This assessment was conducted through the NYSDOH Source Waters Assessment Program (SWAP) which 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 and do not address the quality of treated finished potable tap water. This water supply source provides water to the City of Oneonta. (NYSDOH, Source Water Assessment Program, 2005)

Wilber Lake (0601-0098) NoKnownImpct

Waterbody Location Information

Revised: 06/12/2009

Water Index No: SR-179-P297
Hydro Unit Code: 02050101/120 **Str Class:** A
Waterbody Type: Lake
Waterbody Size: 88.7 Acres
Seg Description: entire lake

Drain Basin: Susquehanna River
Upper Susquehanna
Reg/County: 4/Otsego Co. (39)
Quad Map: MOUNT VISION (K-20-3)

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

Water Quality Sampling
Wilber Lake was sampled as part of the NYSDEC Lake Classification and Inventory (LCI) screening effort in 2008. Nutrient, chlorophyl a and clarity measurements taken at that time revealed no significant eutrophication of the lake and algal growth did not appear to impact recreational uses. Measurement of dissolved oxygen did not indicate any D.O. depletion that would affect the fishery or other aquatic resources. (DEC/DOW, BWAM/LCI, September 2009)

Source (Drinking) Water Assessment
A source water assessment of Wilber Lake found no elevated susceptibility to contaminants. This assessment was conducted through the NYSDOH Source Waters Assessment Program (SWAP) which 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 and do not address the quality of treated finished potable tap water. This water supply source provides water to the City of Oneonta. (NYSDOH, Source Water Assessment Program, 2005)

Segment Description
This segment includes the total area of the entire lake.

Arnold Lake (0601-0109) NoKnownImpct

Waterbody Location Information

Revised: 08/18/2000

Water Index No: SR-190-P362
Hydro Unit Code: 02050101/030 **Str Class:** B(T)
Waterbody Type: Lake (Oligotrophic)
Waterbody Size: 63.8 Acres
Seg Description: entire lake

Drain Basin: Susquehanna River
Upper Susquehanna
Reg/County: 4/Otsego Co. (39)
Quad Map: MOUNT VISION (K-20-3)

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

Water Quality Sampling
Arnold Lake was included in the 1991 CSLAP volunteer monitoring effort; results of this study found no evidence of water quality impairment. (DEC/DOW, BWM/Lake Services, August 2000)

Otsego Lake (0601-0033) NoKnownImpct

Waterbody Location Information

Revised: 09/14/2009

Water Index No: SR-P404
Hydro Unit Code: 00300501/ **Str Class:** A
Waterbody Type: Lake (Mesotrophic)
Waterbody Size: 4099.9 Acres
Seg Description: entire lake

Drain Basin: Susquehanna River
Reg/County: 4/Otsego Co. (39)
Quad Map: COOPERSTOWN (K-21-1) ...

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Threatened	Possible
Recreation	Threatened	Possible

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: NUTRIENTS (Phosphorus), PROBLEM SPECIES

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: AGRICULTURE, HABITAT MODIFICATION, On-Site/Septic Syst, Urban/Storm Runoff

Resolution/Management Information

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

Further Details

Water Quality Sampling
Otsego Lake is the focus of an extensive monitoring effort by SUNY Oneonta Biological Field Station. This sampling finds water quality to be mostly favorable and fully supportive of uses. Nutrient levels in the lake are well below the state guidance values that correspond to impacted/stressed recreational uses. Transparency measurements exceed the recommended minimum for swimming beaches. Clarity has increased in recent years, corresponding to the appearance of zebra mussels in the lake. (SUNY Oneonta Biological Field Station, August 2009)

The NYSDEC collected a number of fish species from the lake to be analyzed for mercury in 2003-06. Results from this effort found some detectable levels of mercury, but at concentrations well below FDA criteria and no health advisories for the lake were issued. (DEC/DFWMR, September 2009)

Fishery Assessment
Warmwater game fish including largemouth and smallmouth bass and chain pickerel inhabit the lake's shoreline areas. Otsego Lake also supports a diverse cold water fishery, the only lake trout fishery in the immediate area. The cold hypolimnetic waters support a high level lake trout population, with mostly wild fish being caught. Most assessments

indicate a fishery resource of outstanding quality. Standard gill netting indicates lake trout populations and growth rates are currently at their highest levels in this century. Recent improvement in trout growth rates is due to the unauthorized introduction of the alewife, which is now abundant and provides a readily accessible forage base. Although the alewife introduction has improved lake trout growth, it negatively affect the walleye fishery. Walleye fingerlings have been stocked annually since 2000 and an abundant population is now present. However, establishment of a self sustaining walleye fishery is unlikely due to the abundant alewife population. Since young of year walleye remain suspended in the water column for about 6-8 weeks after hatching, these fish are preyed upon extensively by alewife and it is believed that the entire year class is wiped out. The walleye fishery in the lake will be dependent upon continued stocking. The impact of the alewife and zebra mussel on the ecology of the lake will continue to be monitored. (DEC/DFWMR, Region 4, September 2009)

Lake Uses

This lake waterbody is designated class A, suitable for use as a water supply, public bathing beach, general recreation and aquatic life support. Water quality monitoring currently available focuses primarily on support of general recreation and aquatic life. Samples to evaluate the bacteriological condition and bathing use of the lake are limited and sampling to evaluate contamination from organic compounds, metals or other inorganic pollutants have not been collected. Monitoring to assess potable water supply and public bathing use is generally the responsibility of state and/or local health departments.

Source (Drinking) Water Assessment

A source water assessment of Otsego Lake found a moderately elevated susceptibility to contaminants. This level of susceptibility is typical of many water supplies that experience no impacts to water supply use and reflects the need to protect the resource. This assessment was conducted through the NYSDOH Source Waters Assessment Program (SWAP) which 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 and do not address the quality of treated finished potable tap water. This water supply source provides water to the City of Oneonta. (NYSDOH, Source Water Assessment Program, 2005)

Watershed Management

While there are no current impairments to its use as a water supply, there are concerns for future and continuing support of various recreational activities (swimming, boating). The threats of greatest concern include the potential future impacts of invasives (zebra mussels and invasive plants), and nonpoint sources of nutrients and sediments in the surrounding lake watershed. Phosphorus loadings to the lake may come from a variety of sources including agricultural runoff, small direct dischargers, individual household systems, and some urban runoff. The SUNY Oneonta Biological Field Station has done a phosphorus budget for Otsego Lake. Annual loading ranges from 6,444-13,119 kg/yr. Tributaries are the major source of total loading, contributing 75-88 percent of the total phosphorus entering the lake (Shadow Brook contributes the highest phosphorus loading of all the tributaries with Hayden Brook being the next highest). Remaining phosphorus loadings come from atmospheric deposition (8-15 percent) and on-site septic systems (4-10 percent). There is evidence of some internal recycling of phosphorus from the lake's bottom muds. Phosphorus loadings to the lake must continue to be monitored and regulated to ensure that levels do not reach the point of causing water quality impairments. (SUNY Oneonta Biologic Field Station, 1998)

Segment Description

This segment includes the total area of the entire lake.

Allen Lake (0601-0117) NoKnownImpct

Waterbody Location Information

Revised: 06/12/2009

Water Index No: SR-P404- 9-P405
Hydro Unit Code: 02050101/030 **Str Class:** A
Waterbody Type: Lake
Waterbody Size: 52.6 Acres
Seg Description: entire lake

Drain Basin: Susquehanna River
Upper Susquehanna
Reg/County: 4/Otsego Co. (39)
Quad Map: RICHFIELD SPRINGS (J-21-4)

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

Source (Drinking) Water Assessment
A source water assessment of Allen Lake found no elevated susceptibility to contaminants. This assessment was conducted through the NYSDOH Source Waters Assessment Program (SWAP) which 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 and do not address the quality of treated finished potable tap water. This water supply source provides water to the Village of Richfield Springs. (NYSDOH, Source Water Assessment Program, 2005)

Segment Description
This segment includes the total area of the entire lake.

Cripple Creek and tribs (0601-0027) Need Verific

Waterbody Location Information

Revised: 07/09/2009

Water Index No: SR-P404-10
Hydro Unit Code: 02050101/030 **Str Class:** C(T)
Waterbody Type: River (Low Flow)
Waterbody Size: 2.1 Miles
Seg Description: stream and tribs from mouth/Otsego Lake to Weaver Lake

Drain Basin: Susquehanna River
Upper Susquehanna
Reg/County: 6/Herkimer Co. (22) ...
Quad Map: RICHFIELD SPRINGS (J-21-4)

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: NUTRIENTS, SILT/SEDIMENT
Suspected: - - -
Possible: D.O./Oxygen Demand, Salts

Source(s) of Pollutant(s)

Known: AGRICULTURE, STREAMBANK EROSION
Suspected: - - -
Possible: - - -

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 Cripple Creek and its tributaries may experience minor impacts due to nutrient enrichment and excessive sedimentation; agricultural activities and streambank erosion are the suspected sources. Sampling to verify impacts to the stream is recommended.

Previous Assessment

Agricultural activities (barnyard runoff, manure spreading, livestock access to streams) and streambank erosion in the tributary watersheds have been cited as significant sources of impacts. Increases in nutrient loads and chlorides have been documented by the SUNY Oneonta Biological Field Station. Although impacts to the stream itself need to be verified, the trib has been identified as a significant contributor of nutrients and sediments to Otsego Lake. (The State of Otsego Lake, Harmon etal, SUNY Oneonta Biologic Field Station, 1997)

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 are Class C.

Young Lake (0601-0026) Need Verific

Waterbody Location Information

Revised: 09/14/2009

Water Index No: SR-P404-10-P408
Hydro Unit Code: 02050101/030 **Str Class:** B
Waterbody Type: Lake
Waterbody Size: 66.7 Acres
Seg Description: entire lake

Drain Basin: Susquehanna River
Upper Susquehanna
Reg/County: 6/Herkimer Co. (22)
Quad Map: RICHFIELD SPRINGS (J-21-4)

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: NUTRIENTS

Source(s) of Pollutant(s)
Known: - - -
Suspected: AGRICULTURE
Possible: - - -

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->B->n/a

Further Details

Overview
Aquatic life support and recreational uses in Young Lake may experience minor impacts/threats due to nutrient and sediment loadings from agricultural and other nonpoint sources.

Previous Assessment
Concerns were raised during previous assessments in 1998 that aquatic life support and recreational uses may be threatened by increasing nutrient and sediment loads from agricultural runoff in the watershed. Aerial observations of drainage basin suggests that much of the agricultural land in the upper basin is not being farmed in accordance with Best Management Practices. The lake flows into Otsego Lake which has documented increases in nutrients and chlorides. However conditions in Young Lake itself need to be verified. (DEC/DOW, BWAM/WQAS, August 2009)

Section 303(d) Listing
Young Lake is included on the NYS 2008 Section 303(d) List of Impaired Waters. The lake is included among the waters listed in Appendix B - Waters Not Meeting Dissolved Oxygen Standards. This part of the List recognizes waterbodies where low dissolved oxygen in lake bottom waters may be the result of morphology and other natural conditions in thermally stratified lakes. This updated assessment is inconclusive regarding the level of fishery impact due to low

dissolved oxygen and whether any incidences of low dissolved oxygen, if they occur, are naturally occurring. Due to the lack of data indicating the occurrence or impact of low dissolved oxygen, it is recommended that this waterbody be considered for delisting during the development of the next Section 303(d) List in 2010. (DEC/DOW, BWAM/WQAS, June 2009)

Weaver Lake (Maumee Swamp) (0601-0025) Need Verific

Waterbody Location Information

Revised: 09/14/2009

Water Index No: SR-P404-10-P409
Hydro Unit Code: 02050101/030 **Str Class:** C
Waterbody Type: Lake
Waterbody Size: 85.0 Acres
Seg Description: entire lake

Drain Basin: Susquehanna River
Upper Susquehanna
Reg/County: 6/Herkimer Co. (22)
Quad Map: RICHFIELD SPRINGS (J-21-4)

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

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: D.O./OXYGEN DEMAND, NUTRIENTS

Source(s) of Pollutant(s)

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

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->B

Further Details

Overview
Aquatic life support and recreational uses in Weaver Lake (Maumee Swamp) may experience minor impacts/threats due to nutrient and sediment loadings from agricultural and other nonpoint sources. Low dissolved oxygen may also contribute to the threats, though this could be naturally occurring.

Previous Assessment
Concerns were raised by local agencies and organizations during previous assessments in 1998 that aquatic life support and recreational uses may be threatened by increasing nutrient and sediment loads from agricultural runoff in the watershed. Some elevated phosphorus concentrations were noted. Aerial observations of the drainage basin suggests that much of the agricultural land in the upper basin is not being farmed in accordance with Best Management Practices. Improperly applied manure, stream and field erosion, barnyard runoff and direct livestock access to the stream were noted. (DEC/DOW, BWAM/WQAS, August 2009)

Natural Resources Assessment
Weaver Lake and a portion of Maumee Swamp that surrounds the lake have been acquired by New York State. Weaver

Lake is considered a Marl Pond, an ecological designation that the Natural Heritage Program considers to be rare and vulnerable. The lake could be listed on the PWL due to natural resources concerns and value. (DEC/BEP, Region 6, 1998)

Section 303(d) Listing

Weaver Lake is included on the NYS 2008 Section 303(d) List of Impaired Waters. The lake is included among the waters listed in Appendix B - Waters Not Meeting Dissolved Oxygen Standards. This part of the List recognizes waterbodies where low dissolved oxygen in lake bottom waters may be the result of morphology and other natural conditions in thermally stratified lakes. This updated assessment is inconclusive regarding the level of fishery impact due to low dissolved oxygen and whether any incidences of low dissolved oxygen are naturally occurring. However because NYS water quality standards for dissolved oxygen do not include an explicit exception for natural conditions or averaging of dissolved oxygen over lake depth, USEPA requires that the Section 303(d) List recognize such waters. (DEC/DOW, BWAM/WQAS, June 2009)

Minor Tribs to Weaver Lake (0601-0039) MinorImpacts

Waterbody Location Information

Revised: 09/10/2009

Water Index No: SR-P404-10-P409-
Hydro Unit Code: 02050101/030 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 13.2 Miles
Seg Description: selected/minor tribs to lake

Drain Basin: Susquehanna River
Upper Susquehanna
Reg/County: 6/Herkimer Co. (22)
Quad Map: RICHFIELD SPRINGS (J-21-4) ...

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: NUTRIENTS (Phosphorus)
Suspected: Silt/Sediment
Possible: - - -

Source(s) of Pollutant(s)

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

Resolution/Management Information

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

Further Details

Overview
Aquatic life support in various Weaver Lake tribs is thought to experience minor impacts from elevated nutrient and sediment loads from agricultural runoff in the watershed. These tribs contribute significant loadings to the lake, which is also listed (0601-0025).

Source Assessment
Local/county agencies have raised concerns regarding management practices at several dairy and other farms near the streams as potential problems. Considerable work with area farm owners through the CAFO program has been conducted to help prevent nutrient loadings and other nonpoint impacts. The Herkimer County Resources Strategy identifies streambanks and field erosion, sedimentation, direct livestock access to streams and barnyard runoff as sources of water quality impacts. (Herkimer County SWCD/WQCC, July 2009).

The Bureau of Environment Protection has also raised concerns with nutrient loading to small streams that flows into the Weaver Lake watershed. The wetlands and its drainage area have been identified as a significant ecosystem. (DEC/BEP, Region 6, 6/26/96)

Segment Description
This segment includes the total length of selected/smaller tribs to Weaver Lake. Tribs within this segment are Class C.

Hayden Creek and tribs (0601-0180) Need Verific

Waterbody Location Information

Revised: 07/09/2009

Water Index No: SR-P404-12
Hydro Unit Code: 02050101/030 **Str Class:** C(T)
Waterbody Type: River
Waterbody Size: 16.0 Miles
Seg Description: entire stream and tribs

Drain Basin: Susquehanna River
Upper Susquehanna
Reg/County: 4/Otsego Co. (39)
Quad Map: RICHFIELD SPRINGS (J-21-4) ...

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

Source(s) of Pollutant(s)

Known: AGRICULTURE, STREAMBANK EROSION
Suspected: - - -
Possible: - - -

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 Hayden Creek and its tributaries may experience minor impacts due to nutrient enrichment and excessive sedimentation; agricultural activities and streambank erosion are the suspected sources. Sampling to verify impacts to the stream is recommended.

Previous Assessment

Agricultural activities (barnyard runoff, manure spreading, livestock access to streams) and streambank erosion in the tributary watersheds have been cited as significant sources of impacts. Increases in nutrient loads and chlorides have been documented by the SUNY Oneonta Biological Field Station. Although impacts to the stream itself need to be verified, the trib has been identified as a significant contributor of nutrients and sediments to Otsego Lake. (The State of Otsego Lake, Harmon etal, SUNY Oneonta Biologic Field Station, 1997)

Segment Description

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

Shadow Brook and tribs (0601-0181) Need Verific

Waterbody Location Information

Revised: 07/09/2009

Water Index No: SR-P404-14
Hydro Unit Code: 02050101/030 **Str Class:** C(T)
Waterbody Type: River
Waterbody Size: 33.3 Miles
Seg Description: entire stream and tribs

Drain Basin: Susquehanna River
Upper Susquehanna
Reg/County: 4/Otsego Co. (39)
Quad Map: EAST SPRINGFIELD (J-21-3) ...

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

Source(s) of Pollutant(s)

Known: AGRICULTURE, STREAMBANK EROSION
Suspected: - - -
Possible: - - -

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 Shadow Brook and its tributaries may experience minor impacts due to nutrient enrichment and excessive sedimentation; agricultural activities and streambank erosion are the suspected sources. Sampling to verify impacts to the stream is recommended.

Previous Assessment

Agricultural activities (barnyard runoff, manure spreading, livestock access to streams) and streambank erosion in the tributary watersheds have been cited as significant sources of impacts. Increases in nutrient loads and chlorides have been documented by the SUNY Oneonta Biological Field Station. Although impacts to the stream itself need to be verified, the trib has been identified as a significant contributor of nutrients and sediments to Otsego Lake. (The State of Otsego Lake, Harmon etal, SUNY Oneonta Biologic Field Station, 1997)

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 are also Class C,C(T).