

2012 WATER QUALITY STRATEGY - Cover Page and Table of Contents.pdf

2012 WATER QUALITY STRATEGY - Report.pdf



WATER QUALITY STRATEGY

Onondaga County, New York
2012

*Photo courtesy of Vince Legnetto
Otisco Lake Preservation Association*

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2012 Onondaga County Council on Environmental Health/ Water Quality Coordinating Committee

CEH- Members	Affiliation
Barbara Rivette, Chair	Citizen
John Benson	Citizen
Charles Bowers (until 8/11)	Citizen
Hugh Kimball (since 8/11)	Citizen
Robert Bryant	Citizen
Mario D'Arrigo	Citizen
Douglas Morris	Citizen
Harvey Skeele	Citizen
Patricia Tobin	Citizen
Jack Toennies	Citizen

CEH Ex-Officio Designee	Alternates	Representation
Mark Burger	Douglas Fisher	SWCD
Brian Donnelly	James Bennett	Department of Transportation
Michael Hooker	Robert Rusyn	OCWA
Don Jordan	Ilana Kampfer	SOCPA
Michael Lannon	David Snyder	WEP
	Janaki Suryadevera	WEP
Linda Karmen		Health Department
Deborah Somers	Lee Macbeth	City of Syracuse-Water Department
James Rhinehart	Robert Warner	County Legislature
Holly Rosenthal		MWB

Non-CEH Members	Representation
F. Spencer Givens, Chair	SWCD- Board of Directors
Kathleen Bertuch	CNYRPDB
Jessi Lyons	Cornell Coop. Ext.-Onondaga Co.
Valerie Podolak	USDA- NRCS

Abbreviations Used

<i>AEM</i>	Agricultural Environmental Management Plan
<i>BMP</i>	Best Management Practice
<i>CCE</i>	Cornell Cooperative Extension of Onondaga County
<i>CEH</i>	Onondaga County Council on Environmental Health
<i>City</i>	City of Syracuse
<i>CNYRPDB</i>	Central New York Regional Planning and Development Board
<i>CREP</i>	Conservation Reserve Enhancement Program
<i>EQIP</i>	Environmental Quality Incentive Program
<i>FL-LOWPA</i>	Finger Lakes – Lake Ontario Watershed Protection Alliance
<i>MWB</i>	Metropolitan Water Board
<i>MS4</i>	Municipal Separate Storm Sewer System
<i>NPS</i>	Nonpoint Source
<i>NYSDEC</i>	New York State Department of Environmental Conservation
<i>NYSDOH</i>	New York State Department of Health
<i>OCWA</i>	Onondaga County Water Authority
<i>Of. of Env.</i>	Onondaga County Office of the Environment
<i>PWL</i>	Priority Waterbody List
<i>SOCPA</i>	Syracuse Onondaga County Planning Agency
<i>SWAP</i>	Source Water Assessment Program
<i>SWCD</i>	Onondaga County Soil and Water Conservation District
<i>SWCC</i>	New York State Soil and Water Conservation Committee
<i>SPDES</i>	State Pollutant Discharge Elimination System
<i>SUA</i>	Syracuse Urban Area
<i>TMDL</i>	Total Maximum Daily Loading
<i>USDA</i>	United States Department of Agricultural
<i>USDA/NRCS</i>	United States Natural Resources Conservation Service
<i>USEPA</i>	United States Environmental Protection Agency
<i>WEP</i>	Onondaga County Department of Water Environment Protection
<i>WQCC</i>	Water Quality Coordinating Committee

EXECUTIVE SUMMARY

The Onondaga County Water Quality Strategy identifies major nonpoint source pollution (NPS) issues and problems most directly impacting or threatening Onondaga County lakes, rivers and streams. The Strategy provides a framework for protecting and improving these water resources while serving as a mechanism for tracking progress towards meeting those objectives.

This document is strictly a planning and assessment tool and not a request or estimate of funding needs. However, this is not a static document. It is designed to undergo modifications as issues get resolved and priorities change. Departments and agencies with a water related role from within and external to County government update the Water Quality Strategy when deemed necessary.

County and watershed specific water quality issues are identified and prioritized. Addressing concerns in watersheds serving as public drinking water supply sources are of highest priority. Helping to meet the requirements of the new Total Maximum Daily Loading (TMDL) for phosphorus in the Onondaga Lake watershed is a high priority, as is the Municipal Separate Storm Sewer System (MS4) program within the designated Syracuse Urban Area (SUA). Other watershed specific issues are assigned priority largely on the severity of degradation or threat and the level of public use of the water resource in question.

Specific tasks with time frames are identified to meet the following Water Quality Strategy Goals: 1) Provide Public Information, 2) Verify and Assess Water Quality Problems, 3) Address Watershed Specific Issues, and 4) Evaluate Progress.

The Strategy presents an Onondaga County specific Priority Waterbodies List (PWL) containing the following information for each listed watercourse: a) restoration or protection priority, b) best usage classification, c) water use affected, d) severity of the affect, and e) the primary pollutant(s) causing or threatening degradation. This information is provided to the New York State Department of Environmental Conservation (NYSDEC) during their periodic basin wide reclassifications.

Progress in protecting or restoring specific PWL waterbodies (Goal 4), is evaluated through a tracking table which identifies: i) the original problem or threat, ii) current status of the problem (s) or issue (s), and iii) actions needed or proposed to address the problem (s) or issue (s).

The Strategy serves as a support document for grant applications made by county departments, associated agencies, and private consultants on behalf of municipal clients, environmental organizations, and lake associations. Federal and State funding sources frequently request or require identification of the watercourse on a priority waterbody list or associated documentation as a prerequisite for eligibility or priority ranking for funding consideration.

UPDATING THE 2005 WATER QUALITY STRATEGY

There have been significant water quality improvements and regulatory changes since the 2005 Onondaga Water Quality Strategy Report:

Stormwater Regulations

- Non-agricultural sources of nonpoint pollution have been the focus of increased attention due to the stricter regulations.
- Federally mandated stormwater management regulations came into effect for MS4s within designated “urban areas” and at construction activities statewide where one acre or more of soil is disturbed.
- The City of Syracuse implemented a requirement that an erosion/stormwater control plan is required if a project disturbs 5,000 ft² or more land in “environmentally sensitive” areas of the Skaneateles Lake watershed.

Priority Waterbody List (PWL)

- The 2005 Strategy contained 32 waterbodies or segments on the County PWL. In this 2012 update, no deletions have been made to the PWL, with one addition to separate Bear Trap Creek from “Ley Creek & Tributaries.”
- The most severe designated use-impairment defined as “precluded” has not been assigned to any of the 33 PWL waterbodies or segments with the vast majority being classified as the two less severe “threatened” or “stressed” designations.

Waterbody Changes

- The most significant water quality and aquatic resource improvement has occurred in Onondaga Lake due largely to point source upgrades at the Metro sewage treatment system. Though less dramatic, improvements have been made or are taking place in the lower reaches of several Onondaga Lake tributaries.
- The separation of Bear Trap Creek from the more inclusive “Ley Creek & Tributaries” reflects water quality improvements that have occurred, and aquatic habitat restoration in Bear Trap Creek during 2011.
- There are few other waterbodies (i.e., Chittenango Creek) that can be classified with a good degree of certainty as having “improved” since the 2005 Water Quality Strategy update.
- There have not been any obvious examples of degradation or decline, but there are a number of waterbodies and segments in need of attention to prevent decline or to remediate existing problems.
- Priority attention needs to remain directed towards public and private water supply source protection. The required reduction of non-point sources of phosphorus in the Onondaga Lake watershed will focus attention on this effort in part of Onondaga County.

I. INTRODUCTION

A) WATER QUALITY STRATEGY OBJECTIVE

Environmental concern among individuals, organizations and government has steadily grown. Most notable among these concerns have been those pertaining to water quality. Although considerable attention has been directed to water quality problems at the global and national level, it is ultimately at the local level where daily lives are most affected and efforts to ameliorate such problems are most productive.



Otisco Lake watershed

*Photo courtesy of Vince Legnetto
Otisco Lake Preservation Association*

Onondaga County recognizes the myriad of water quality related issues and the need to coordinate those functions. These functions relate to the supply, treatment, monitoring, regulation and management of County water resources. Coordination with neighboring counties with whom watersheds are shared is vital to achieving long-term water quality protection and/or enhancement. Finite resources in combination with an increasing number of water quality issues require target sites be prioritized. With this in mind, the Onondaga County Water Quality Strategy identifies the major nonpoint source (NPS) pollution issues in Onondaga County, and provides a plan for protecting and upgrading the County's water resources. Major county watersheds are shown in Figure 1.

Agencies and organizations both within and external to County government provide input to the Strategy during its periodic review and update. This provides for a more effective and fiscally efficient execution of water quality policy within Onondaga County. The Strategy is not a static document, but one that is broad and flexible, and capable of undergoing modification as issues and priorities change.

The Onondaga County Water Quality Strategy has also served as a reference document to provide justification and support for federal and state water quality related grant applications submitted by public agencies, consulting firms on behalf of local municipalities and by private organizations

B) WATER QUALITY STRATEGY UPDATING- STRUCTURE

The Water Quality Strategy updating is a coordinated effort led by the Onondaga County Council on Environmental Health (CEH) and the Onondaga County Soil and Water Conservation District (SWCD) which also serves as an ex-officio member of the Council.

1. Council on Environmental Health Mission Statement

Within its overall mission, the CEH helps provide for the preservation and improvement of the quality of water within Onondaga County. The Council provides the mechanism for shaping policies to achieve and maintain the integrity of Onondaga County waters by

...serving as a focal point for discussion, evaluation and resolution of water related issues of concern to the County.

2. Soil and Water Conservation District (SWCD) Mission Statement

The SWCD mission is to promote excellence in the wise use of our rural/urban natural resources by:

- Reducing erosion and nutrient runoff from agricultural and non-agricultural NPS by the use of Best Management Practices (BMPs).
- Providing information and education to the public on sound natural resource conservation principles and practices.
- Promoting the improvement, protection, restoration and maintenance of surface and groundwater quality.

3. Water Quality Coordinating Committee (WQCC)

A Water Quality Coordinating Committee was established to create, update and track the Strategy. Presently, the WQCC is comprised of the CEH membership and non-CEH member water resource agencies that regularly attend Council meetings (Cornell Cooperative Extension, Central New York Regional Planning Board) or are readily available to attend as needed (Natural Resources Conservation Service). These are listed on page 1.

II. INDIVIDUAL AGENCY AND ORGANIZATIONAL ROLES

Individual agency and organizational roles to protect and improve water quality in Onondaga County government (City of Syracuse included) are summarized in Table 1 (p.9-10).

A) WATER QUALITY STRATEGY UPDATING - PROCESS

1. Input and Tracking

Collectively, a wide range of citizen and local water resource agency input is incorporated into the Strategy. Periodically, the Strategy is reviewed with the NYSDEC and New York State Soil and Water Conservation Committee (SWCC) representatives.

In some instances, tracking Strategy implementation involves direct reporting, usually in the form of meeting presentations to the CEH by the lead agency responsible for implementing a specific task or activity.

This collective input assists the periodic review and update of the actions being performed to meet the following Water Quality Strategy Goals:

The first step in the updating process is a collective review of the public education efforts taking place by water resources agencies and whether changes in subject matter or meth-

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|--|
| <ol style="list-style-type: none">I. To Provide Public Information.II. Verify and Assess Water Quality Problems.III. Address Watershed Specific Issues.IV. Evaluate Progress. |
|--|

odologies are needed to meet specific objectives (Goal I). The CEH has a particular focus in that it serves as the County's designated MS4 entity for public participation and awareness.

The verification and assessment of water quality problems (Goal II) requires an evaluation of the current County priority waterbodies list. Recommended changes to the priority waterbody list reflect changes in the water quality conditions or priority standing of a specific waterbody or segment since the last update. Recommendations are made on the basis of technical information such as monitoring data whenever available.

The review includes the specific tasks and actions listed to accomplish the stated objectives under each of the above goals for the listed County waterbodies and includes the problem status, progress towards problem resolution, and future restoration or protection actions needed (Goal III and Goal IV).

A summation of the programs, projects and other activities presently being done and proposed to meet the objectives of these four goals is presented in Table 2 (p.11-14).

III. PRIORITIZED WATER QUALITY NEEDS

A) COUNTY-WIDE WATER QUALITY ISSUES

The county-wide focus includes generic water quality needs related to non-point pollution sources:

- Protect all public drinking water supply sources from contamination in coordination with NYDOH Source Water Assessment Program (SWAP).
- Protect water sources that provide drinking water for private users.
- Conduct an active NPS pollution public education program.
- Protect and minimize degradation of tributary lake water quality and habitat from agricultural and urban stormwater pollution sources. (Figure 2-Agricultural Districts and Figure 3 – Syracuse Urban Area).
- Establish BMPs on as many farms as possible in County watersheds and over primary and principle aquifers through the use of prudent soil and water conservation practices. (See Figure 4-surficial groundwater availability).



New barnyard at the Tucker Farm, Otisco Lake watershed.

Photo courtesy of SLWAP

Review, update and develop County lake management plans as needed.

B) WATERSHED SPECIFIC WATER QUALITY ISSUES

Overall watershed specific concerns of highest priority in the county have been assigned to those affecting Skaneateles and Otisco Lakes since they serve as public drinking water

sources for over half of Onondaga County's residents.

The remediation and future management of Onondaga Lake remains a priority water quality issue for Onondaga County government and its residents. Major efforts continue and involve federal, state, local government, and private sector industrial parties. The establishment of a TMDL requirement for Onondaga Lake will likely provide a focus on several tributaries in that watershed in order to meet TMDL requirements.

Priority needs are assigned to other watercourses on the basis of severity of degradation (needing restoration) or possessing high water quality (in need of protection) along with the level of existing or potential public use.

The top five agricultural nonpoint source priority watersheds are: Skaneateles Lake, Otisco Lake, Onondaga Lake, Oneida Lake (Chittenango, Butternut, and Limestone Creek drainage), Seneca River and the Tioughnioga (Tully Lake drainage).



Skaneateles Lake - drinking water to the City of Syracuse metropolitan area.

Photo courtesy of SLW/AP

C) ONONDAGA COUNTY PRIORITY WATERBODY LIST (PWL)

Verification and assessment of water quality problems (Goal II) in combination with identified county and watershed specific water quality issues (Sections III A and III B) and the above listed priorities provides the basis for the PWL (Table 3, p.15-17).

The Onondaga County PWL largely follows the most recent New York State PWLs for the Oswego River Finger Lakes Basin and Susquehanna River Basin, However, WQCC members and other reviewers have historically felt the need for the Strategy to reflect local priorities and incorporate local data and expertise where appropriate. The most significant adaptation of the state form is the addition of a numerical scale categorizing waterbody priority (1= highest, 2= medium, 3= lowest) and letter designations whether the focus for the specific waterbody is on preservation or protection (P) as opposed to the need being restoration or improvement (R).

IV. WATER QUALITY NEEDS-PAST, PRESENT, FUTURE

Table 4 (p.18-24) provides a tracking summary or progress report for waterbodies listed on the Onondaga County PWL. For comparative purposes, the primary water quality issue or concern at the time of the previous Strategy update (2005) provides the baseline condition. The middle column shows recent or present actions of significance to resolve problems or enhance protection while the last column provides a general guidance for future efforts. Arrows (upward or sideways) under the specific waterbody name are indicative of the overall direction water quality and related conditions have taken since 2005.

Table 1

Individual Agencies and Organization Roles for Water Quality Protection in Onondaga County

Entity	Functions
City of Syracuse	<ul style="list-style-type: none">• Provide potable water to City residents and various Villages and Towns in Onondaga County.• Monitor water quality.• Operate water treatment facility.• Maintain treatment/distribution facilities.• Provide lab service for treatment process control.• Provide city sewer engineering/maintenance.• Inspect/monitor Skaneateles Lake watershed.• Maintain Watershed Protection Program, including Skaneateles Lake Watershed Agricultural Program and residential property owner Water Quality Education Program.
Central New York Regional Planning and Development Board	<ul style="list-style-type: none">• Help identify & prioritize regional water quality issues.• Conduct/assist funding of collaborative water quality projects.• Foster regional partnerships; participate in local, regional and state partnerships.• Develop/support development and implementation of watershed management plans.• Provide support for the Cortland-Onondaga Federation of Kettle Lakes Association.• Conduct municipal and public outreach/education on stormwater regulations and other water resource issues.• Facilitate communication and cooperation among regulated MS4s in the Syracuse Urbanized Area through the CNY Stormwater Coalition.
Cornell Cooperative Extension of Onondaga County	<ul style="list-style-type: none">• Enlist and train volunteers from throughout the County to participate in water quality programs.• Educate the public about preventing non-point source pollution.• Engage residents in awareness and stewardship of water resources through various programs.• Provide educational programs on watershed issues for municipal officials within targeted watersheds.• Facilitate communication and cooperation on water resource issues including stormwater pollution, green infrastructure and landscaping, and invasive species.
Onondaga County Health Department	<ul style="list-style-type: none">• Regulate public water supplies.• Regulate sewage treatment.• Approve individual sewage disposal systems.• Conducts surface water sampling.• Handle complaint investigations.
Metropolitan Water Board (MWB)	<ul style="list-style-type: none">• Provide water to OCWA/City of Syracuse.• Monitor drinking water supply/quality.• Operate water treatment, storage, transmission facilities.• Maintain services for process control.

Entity**Functions**

Office of the Environment

- Represent County Executive's Office.
- Implement County environmental policy.

Onondaga County Water Authority (OCWA)

- Provide water to most of County public users outside of the City of Syracuse.
- Monitor water quality.
- Inspect Otisco Lake Watershed.
- Lab services for process control.
- Operate water treatment facility.
- Maintain treatment/distribution facilities.

Onondaga County Soil and Water Conservation District (SWCD) and USDA/NRCS

- Plan, implement, and secure funding for agricultural environmental management programs.
- Work to solve nonpoint source pollution problems throughout the County.
- Promote conservation of soil, water and other resources through various federal and state funding programs.
- Deliver NYSDEC 4-hour contractor training program to earthwork contractors and municipal officials.
- Provide critical area seeding services to municipalities at reduced cost.

Onondaga County Department of Water Environment Protection

- Operate and maintain wastewater treatment facilities.
- Operate and maintain the pumping stations and collection system.
- Provide laboratory services for process control/water quality/industrial pretreatment programs.
- Sample for State Pollution Discharge Elimination System (SPDES) permit compliance.
- Complete facility improvement/expansion projects as necessary, or as directed by the NYSDEC.
- Conduct special studies in cooperation with, or as directed by the NYSDEC.
- Enforce Sewer Use ordinance.
- Implement Pollution Prevention and Pretreatment Programs.
- Implement Onondaga Lake Ambient Monitoring Program.



A newly established rain garden.

*Photo courtesy of Amy Samuels
Onondaga Environmental Institute*

Table 2

Onondaga County Water Quality Strategy Goals

WATER QUALITY STRATEGY GOAL I: To Provide Public Information

Objectives	Specific Actions	Timeframe
<p>Promote water quality awareness in schools</p>	<ul style="list-style-type: none"> - Presentations to school groups. - County Envirothon. - Project Watershed stream monitoring by students. - Project Watershed field training for teachers. 	<ul style="list-style-type: none"> - On-going - Annually - April - Annually - Spring/Fall - Annually
<p>Improve the public's understanding of pertinent water quality issues</p>	<p><u>Printed</u></p> <ul style="list-style-type: none"> - Distribute water quality educational materials. - Agency newsletters articles on various topics. - Submit news releases and articles on water quality issues to media outlets. - Promote use of soil survey by agricultural development and municipal interests. <p><u>Websites</u></p> <ul style="list-style-type: none"> - Stormwater management practices information on multiple agency websites. - Maintain website for Skaneateles Lake watershed. - Lake association websites. <p><u>Workshops/Projects/Field Tours</u></p> <ul style="list-style-type: none"> - Aquatic plant management workshops. - Stormwater management municipal training workshops. - Metro Plant "Open House" tour. - Water Quality Awareness Day. - Water quality related farm conservation tour. - Citizen and scouts street drain stenciling projects. - Onondaga Creek Clean-up Day (s). 	<ul style="list-style-type: none"> - On-going - On-going - As needed - On-going - On-going - On-going - On-going - citizen maintained - 2010 (tentative) - On-going - Annually Sept/October - Annually September - Annually September - Periodic - Assumed by Citizen Group

WATER QUALITY STRATEGY GOAL II: Verify and Assess Water Quality Conditions

Objectives	Specific Actions	Timeframe
Collect monitoring data/ pertinent information	<ul style="list-style-type: none"> - Onondaga Lake Ambient Monitoring Program. - Stormwater outfall monitoring. - Skaneateles Lake - water supply related. - Otisco Lake - water supply related. - Selected PWL and special needs monitoring. - Project Watershed stream monitoring. 	<ul style="list-style-type: none"> - On-going - On-going - On-going - As-needed - On-going/2X per year
Conduct waterbody assessment	<ul style="list-style-type: none"> - Compile/analyze data for waterbodies from available sources. - Identify nonpoint sources of degradation. 	<ul style="list-style-type: none"> - As needed - On-going
Update Priority Waterbodies List (PWL)	<ul style="list-style-type: none"> - Review/Modify County PWL. - Comment on State PWL updates. 	<ul style="list-style-type: none"> - As needed - As needed

WATER QUALITY STRATEGY GOAL III: Address Watershed Specific Issues

Watershed/ Waterbody	Specific Actions	Status
Beaver Lake	<u>Nutrient Management</u> – Evaluate future management needs.	– On-going
Jamesville Reservoir- Upper Butternut Creek	<u>Sediment/Nutrient Management</u> – Post –Jamesville Reservoir/Upper Butternut Creek BMP water quality evaluation.	– On-going
Oneida Lake	<u>Agricultural</u> – Lake and watershed planning and implementation program. – Non-agricultural BMP planning and Implementation Program. <u>Invasive Species Control</u> – Implement water chestnut control strategy.	– On-going – On-going – On-going assumed by citizens group
Onondaga Creek	<u>Agricultural</u> – Implement AEMs.	– On-going
Oswego-Oneida-Seneca Rivers	<u>Agricultural</u> – Watershed planning and implementation program. <u>Invasive Species Control</u> – Implement water chestnut control program.	– On-going – On-going
Otisco Lake	<u>Watershed Management</u> – Develop watershed management plan. <u>Invasive/Nuisance Species</u> – Implement/evaluate aquatic vegetation control needs. <u>Agricultural</u> – Implement AEMs and EQIP.	– Started 2010 – Annually – On-going
Skaneateles Lake	<u>Agricultural</u> – Plan & implement whole farm plans. – Implement buffer protection (CREP). <u>On-site Wastewater</u> – Decentralized wastewater demonstration project. <u>Land use</u> – Skaneateles Lake Watershed Land Protection Program (conservation easements). <u>Invasive Species</u> – Assist Eurasian water milfoil eradication program. <u>Watershed Education</u> – Water quality education program.	– On-going – On-going – 6/10-completed – 4/09 completed – On-going – On-going
Tully Lake	<u>Lake Management</u> – Implement/evaluate aquatic vegetation control needs.	– Annually
Upper Tioughnioga	<u>Agricultural</u> – Plan/Implement EQIP and AEMS.	– On-going

WATER QUALITY STRATEGY GOAL IV: Evaluate Progress

Objectives	Specific Actions	Completion
Continue assessment of point and non-point source impacts to County waterbodies	<ul style="list-style-type: none"> - Evaluate waterbodies' water quality status and compare to previous conditions. - Evaluate/revise specific watershed management or restoration plans. 	<ul style="list-style-type: none"> - As needed - As needed
Coordinate activities of County government operations relating to County Water Quality Strategy goals and objectives	<ul style="list-style-type: none"> - Incorporate specific topic evaluations/presentations in CEH work program. 	<ul style="list-style-type: none"> - As needed
Shared County Watershed and Regional Water Quality Assessments	<ul style="list-style-type: none"> - Participant in Water Resources Board/FL-LOWPA/Upper Susquehanna Coalition activities for basin wide information exchange. - Participate in CNY Stormwater Coalition. - Participate in NPS Strategy meetings, regional meetings, conferences. 	<ul style="list-style-type: none"> - On-going - On-going - On-going
Produce Water Quality Strategy	<ul style="list-style-type: none"> - Review, update & distribute Water Quality Strategy. 	<ul style="list-style-type: none"> - As- needed



Table 3

Onondaga County Waterbody List

SURFACE WATERS CLASSIFICATION AND BEST USAGE				NUMERICAL PRIORITY RATING LETTER PRIORITY DESIGNATION		
Class	Best Usage					
AA	Drinking water.			1= segment or watercourse having highest priority.		
A	Drinking water.			2= segment or watercourse having medium priority.		
B	Primary contact recreation. * Secondary contact recreation. **			3= segment or watercourse having lower priority.		
C	Fishing.			P = primary objective to protect or preserve existing water quality or uniqueness of the water resource.		
D	Fishing (doesn't support fish propagation).			R = primary objective to improve or restore the water resource.		
Segment Name	ID No.	Priority	Class	Prime Affected Use	Impact Category	Primary Pollutant
Bear Trap Cr	0702-0001	2R	C(T)	Aquatic Life	Impaired	Urban Runoff
Beaver Lake	0701-0005	3P	C	Aesthetics	Stressed	Nutrients
Bloody Brook & tribs	0702-0006	3R	B/C	Aquatic Life	Impaired	Industrial Contaminants, Urban Runoff
Butternut Cr ¹	0703-0039	2P	C/CT	Aquatic Life	Stressed	Nutrients, Urban Runoff
Butternut Cr ²	0703-0100	2P	C(I)	Aquatic Life	Threatened	Nutrients, Sediments,
Carpenter's Br	0701-0033	2P	C(T)	Aquatic Life	Stressed	Sediments (Mining), Nutrients
Chittenango Cr	0703-005	2P	C	Aquatic Life	Stressed	Sediments
Cross Lake	0701-0013	2R	B	Recreation	Stressed	Nutrients
Fabius Br	0602-0026	3P	C(T)	Aquatic Life	Threatened	Nutrients
Furnace Br	0702-0014	1P	B	Aquatic Life	Stressed	Urban Runoff
Geddes Brook ³	0702-007	2R	C	Aquatic Life	Impaired	Urban Runoff, Industrial Contamination.
Geddes Brook ⁴	0702-0019	2P	C (I)	Aquatic Life	Threatened	Urban Runoff
Harbor Brook ⁵	0702-0002	1R	C/B	Aquatic Life	Impaired	Industrial Contamination, Pathogens, Aesthetics, Urban Runoff
Harbor Brook ⁶	0702-0012	3P	C (I)	Aquatic Life	Stressed	Sediment, Urban Runoff
Jamesville Res	0703-0015	1P	AA	Bathing	Threatened	Sediments, Aquatic Vegetation
Ley Creek & tribs	0702-0001	1R	B/C (T)/C	Aquatic Life	Impaired	Industrial Residues, Aesthetics, Urban Runoff
Limestone Cr ⁷	0703-0008	2R	C/C(T)	Aquatic Life	Stressed	Sediment, Urban Runoff.
Limestone Cr ⁸	0703-0106	1P	C(T)	Aquatic Life	Stressed	Sediment (East Branch), Nutrients
Meadow Brook	0703-0036	3R	C	Aesthetics	Stressed	Urban Runoff

Onondaga County Waterbody List - *continued*

Segment Name	ID No.	Priority	Class	Prime Affected Use	Impact Category	Primary Pollutant
Nine Mile Cr ⁹	0702-0005	1R	D/C	Aquatic Life	Impaired	Industrial Salt Residues, Urban Runoff
Nine Mile Cr ¹⁰	0702-0028	1P	C(T)	Aquatic Life	Threatened	Sediments, Urban Runoff
Oneida River	0703-0020	2P	B	Aquatic Life, Aesthetics, Recreation	Stressed	Invasive Species
Onondaga Cr ¹¹	0702-0023	1R	C, B	Aquatic Life, Aesthetics	Impaired	Urban Runoff, Pathogens
Onondaga Cr ¹²	0702-0004	1R	C, C(T)	Aquatic Life	Impaired	Sediments
Onondaga Cr ¹³	0702-0024	1P	C (T)	Aquatic Life	Stressed	Sediments
Onondaga L& Outlet	0702-0003	1R	B,C	Fish consumption, Aquatic Life	Impaired Stressed	Industrial Residues, Urban Runoff
Oswego/Seneca River	0701-0001	2R	C	Aquatic Life, Aesthetics.	Stressed	O ₂ Demand, Invasive Species , Nutrients
Otisco Lake	0702-0011	1P	AA	Water Supply, Aquatic Life, Recreation	Threatened	Sediments, Nutrients
Pools Br & tribs	0703-0016	2P	C/C(T)	Aquatic Life	Threatened	Sediments, Nutrients, Urban Runoff
Skaneateles Lake & tribs	0707-0004	1P	AA	Water Supply	Threatened	Pathogens, Turbidity, Nutrients, Invasive Species
Skaneateles Cr	0707-0004	1R	C(T)	Fish consumption	Impaired	Priority Organics, Nutrients
Tully Lake	0602-0047	2P	B	Recreation	Threatened	Nutrients, Aquatic Vegetation
Tioughnioga Cr West Branch	0602-0069	3P	C (T)	Aquatic Life	Threatened	Nutrients, Sediments

Onondaga County Waterbody List - *continued*

- * Recreational activities where the human body may come in direct contact with raw water to the point of body submergence (i.e., swimming, diving, water skiing, etc.)
- ** Recreational activities where contact with the water is minimal and ingestion of the water is not probable (i.e., fishing, boating, etc.)

Footnotes:

1. Butternut Cr- confluence to Jamesville Reservoir.
2. Butternut Cr- Jamesville Reservoir to source.
3. Geddes Br- confluence to Old Erie Canal Crossing.
4. Geddes Br- old Erie Canal Crossing to source.
5. Harbor Br- mouth at Onondaga Lake to Grand Avenue.
6. Harbor Br- Grand Avenue to source.
7. Limestone Cr- confluence to Manlius/Pompey town line .
8. Limestone Cr- town line to source at Deruyter Reservoir.
9. Nine Mile Cr- mouth at Onondaga Lake to Airport Rd.
10. Nine Mile Cr - Airport Rd. to source at Otisco Lake dam.
11. Onondaga Cr- mouth at Onondaga Lake to City of Syracuse southern boundary line.
12. Onondaga Cr- City of Syracuse southern boundary line to Mudboil Depression Area.
13. Onondaga Cr- Mudboil Depression Area to source.

CATEGORY OF IMPACTS

- Precluded:** This category is used for the most severe impacts. Water quality and/or associated habitat degradation precludes, eliminates, or does not support a classified use; natural ecosystem functions may be significantly disrupted.
- Impaired:** These waters have severe impacts. Water quality and/or habitat characteristics frequently impair a classified use. Also applied when designated use is supported, but at a level significantly less than would otherwise be expected. Natural ecosystem functions may be disrupted.
- Stressed:** These waters have moderate impacts. Reduced water quality associated is occasionally evident and designated uses are intermittently or marginally restricted; ecosystem may exhibit adverse changes.
- Threatened:** These waters have the least impacts. Water quality presently supporting designated use and ecosystem experiencing no obvious signs of stress; existing or changing land use patterns may result in restricted usage or ecosystem disruption.

Table 4

Priority Waterbodies List (PWL) Tracking Summary

Waterbody	Status Compared to 2005 Water Quality Strategy	Recent Efforts /Milestones	Future Needs
Beartrap Creek SUA-Yes \uparrow	<ul style="list-style-type: none"> Assessments indicated larger scale habitat improvement feasible. Water quality conditions stable. 	<ul style="list-style-type: none"> Aquatic habitat and trout restoration project starting 2011. 	<ul style="list-style-type: none"> Complete habitat restoration project. Assess post-project aquatic habitat, fisheries, and water quality conditions.
Beaver Lake SUA-No \uparrow	<ul style="list-style-type: none"> Algae bloom intensity generally remaining stable. Nutrient levels remain high. 	<ul style="list-style-type: none"> Monitoring to track water quality. Invasive species early detection/removal. 	<ul style="list-style-type: none"> Continue monitoring. Reassessment of rooted plant status compared to post-alum conditions. Future alum treatment may be needed.
Bloody Brook SUA-Yes \uparrow	<ul style="list-style-type: none"> Liverpool Pump Station upgrading and wet weather storage capacity construction significantly reduced bacteria/pathogens inputs. Industrial sources of metals remain. 	<ul style="list-style-type: none"> Industrial sources of metals contamination/presence in sediment to be remediated under NYSDEC. 	<ul style="list-style-type: none"> Water quality and macro-invertebrate assessment after industrial source remediated.
Butternut Creek ¹ SUA-Yes \uparrow	<ul style="list-style-type: none"> Nutrient and stormwater runoff remain concerns. Streambank and slope stability concerns in Jamesville hamlet. 	<ul style="list-style-type: none"> Volunteer water quality monitoring continues at several stream segment locations. Funding opportunities explored to address streambank/slope stability concerns. 	<ul style="list-style-type: none"> Address streambank /slope stability concerns Continue volunteer water quality monitoring Implement applicable Oneida Lake Management Plan initiatives.
Butternut Creek ² SUA -No \uparrow	<ul style="list-style-type: none"> Agricultural derived nutrients and sediment due to main stem and tributary stream bank erosion. Several stream bank stabilization, agricultural BMP projects completed. 	<ul style="list-style-type: none"> Community septic system issue identified and being addressed. Monitoring bacteria levels; quantify nutrient/sediment inputs to assess streambank/BMP projects completed. Continue agricultural BMP planning/implementation. Volunteer monitoring. 	<ul style="list-style-type: none"> Monitor stream quality. Implement identified/prioritized streambank erosion and agricultural BMP projects. Implement applicable Oneida Lake Management Plan initiatives.
Carpenter's Brook SUA-No \uparrow	<ul style="list-style-type: none"> Turbidity from mining (gravel) in upper watershed. Hatchery developed alternative water supply to stream use/land purchased for preservation. Tier 3 Whole Farm Plans completed. 	<ul style="list-style-type: none"> Volunteer water quality monitoring-focus on turbidity. Tier 4 Whole Farm Plans being implemented. 	<ul style="list-style-type: none"> Continue volunteer monitoring. Complete Tier 4 Whole Farm Plans/ Future Update as needed

Notes:

- Confluence to Jamesville Reservoir
- Jamesville Reservoir to source

\longrightarrow Arrows denote general trend in water quality conditions
SUA- Yes or No indicates whether watercourse is located in the Syracuse Urban Area

Waterbody	Status Compared to 2005 Water Quality Strategy	Recent Efforts / Milestones	Future Needs
Chittenango Creek ↑ SUA- Partial	<ul style="list-style-type: none"> Present conditions indicate insignificant impacts to aquatic life. Delisted from NYSDEC 303(d) list. 	<ul style="list-style-type: none"> Tier 2 Agricultural Assessments completed Non-agricultural and agricultural BMP projects implemented. 	<ul style="list-style-type: none"> Continue to implement non-agricultural BMP projects on watershed basis. Implement appropriate Oneida Lake Management Plan initiatives. Monitor water quality status.
Cross Lake ↑ SUA-No	<ul style="list-style-type: none"> High nutrient inputs from upstream Seneca River watershed. No bacterial contamination impairing bathing-Onondaga Co. Water chestnut found (Cayuga Co.) 	<ul style="list-style-type: none"> Efforts to control/eliminate water chestnut have been successful. Jointly funded real-time water quality monitoring program. Agricultural BMP planning/implementation in progress. 	<ul style="list-style-type: none"> Solutions require basin wide approach. Monitor water quality conditions. Continue agricultural BMP planning/implementation. Contain/eliminate water chestnut.
Fabius Brook ↑ SUA-No	<ul style="list-style-type: none"> Agricultural derived contaminants (nutrients) of some concern. Remains quality trout stream in southern part of County. Added importance since part of Chesapeake Bay watershed/TMDL requirements. 	<ul style="list-style-type: none"> Volunteer stream monitoring. Agricultural BMP planning/implementation in progress. 	<ul style="list-style-type: none"> Continue volunteer monitoring. Better delineation of nutrient/contaminant sources. Continue agricultural BMP planning/implementation.
Furnace Brook ↑ SUA-Yes	<ul style="list-style-type: none"> Increased urbanization. Continues supporting stocked and wild trout populations; water quality stable. 	<ul style="list-style-type: none"> Volunteer stream monitoring assessing existing water quality and fishery conditions. 	<ul style="list-style-type: none"> Public education emphasizing uniqueness of urban trout fishery. Continue stream monitoring due to stormwater concerns/fishery uniqueness.

Notes:

- ↑ Arrows denote general trend in water quality change since last Water Quality Strategy Update
- SUA- Yes or No indicates whether watercourse is located in the Syracuse Urban Area

Waterbody	Status Compared to 2005 Water Quality Strategy	Recent Efforts / Milestones	Future Actions
Lower Geddes Brook ³ ← SUA-Yes	<ul style="list-style-type: none"> Data collected, design, relating to remediation issues associated with Onondaga Lake. Nearby industrial source remediation/wetland restoration completed. 	<ul style="list-style-type: none"> Design of remediation plans to address stream and floodplain industrial contamination completed. 	<ul style="list-style-type: none"> Complete remediation addressing industrial contamination.
Upper Geddes Brook ⁴ → SUA-Yes	<ul style="list-style-type: none"> Volunteer invertebrate monitoring indicated “fair to good” rating. 	<ul style="list-style-type: none"> Focus on urban (non-agricultural) stormwater runoff. 	<ul style="list-style-type: none"> Volunteer monitoring to assess water quality conditions.
Lower Harbor Brook ⁵ → SUA-Yes	<ul style="list-style-type: none"> Urban contamination including bacteria, stormwater pollution and CSO inputs. Adjacent industrial waste disposal and industrial contamination of sediments at the mouth of the tributary. 	<ul style="list-style-type: none"> Projects completed/or in progress for overall Onondaga Lake municipal and industrial remediation efforts including wetlands treatment /restoration project. Construction of gray infrastructure projects in progress. Onondaga Lake AMP/ tributary monitoring. Volunteer monitoring helping assess water quality conditions. 	<ul style="list-style-type: none"> Continue efforts under “Recent Activities/ Milestones.” Completion of gray/green infrastructure projects.
Upper Harbor Brook ⁶ → SUA-Yes	<ul style="list-style-type: none"> Concern for stormwater derived contaminants due to increased residential development. 	<ul style="list-style-type: none"> Monitoring indicates no recurring bacterial input problems. Agricultural BMP planning/implementation in progress. 	<ul style="list-style-type: none"> Monitoring to better delineate water quality/changes in upper reach.
Jamesville Reservoir → SUA-Partial	<ul style="list-style-type: none"> Streambank erosion survey identified sources of sediment contribution. Low oxygen conditions in deepwater in late summer remain with overall water quality conditions unchanged. 	<ul style="list-style-type: none"> Monitoring indicates no recurring bacterial input problems. Agricultural BMP planning/implementation in progress. 	<ul style="list-style-type: none"> Baseline aquatic vegetation survey. Continue monitoring to track water quality conditions, especially bacteria. Continue streambank erosion and agricultural BMP project implementation (upper Butternut Creek watershed).

Notes:

3. Mouth at Onondaga Lake to old Erie Canal crossing
 4. Old Erie Canal crossing to source
 5. Mouth at Onondaga Lake to Grand Avenue
 6. Grand Avenue to source
- Arrows denote general trend in water quality change
SUA- Yes or No indicates whether watercourse is located in the Syracuse Urban Area

Waterbody	Status Compared to 2005 Water Quality Strategy	Recent Efforts/ Milestones	Future Actions
Ley Creek & tributaries ↑ SUA-Yes	<ul style="list-style-type: none"> Non-operating landfills, industrial contamination and urban runoff inputs concerns remain. 	<ul style="list-style-type: none"> Landfill/industrial contamination remediation to begin under NYSDEC. Continue water quality/biological monitoring. 	<ul style="list-style-type: none"> Complete landfill/industrial contamination remediation. Continue monitoring.
Limestone Creek ⁷ ↑ SUA-Yes	<ul style="list-style-type: none"> Lower reach remain subject to urban runoff and upstream sediment inputs. 	<ul style="list-style-type: none"> Corrective actions for dissolved oxygen/pathogens associated with wastewater treatment plant being implemented. 	<ul style="list-style-type: none"> Prioritize and address streambank erosion inputs. Monitor water quality status.
Limestone Creek ⁸ ↑ SUA-No	<ul style="list-style-type: none"> Madison County section: multi-agency effort has reduced East Branch mudslide turbidity inputs. Other sediment/turbidity sources present. 	<ul style="list-style-type: none"> Volunteer monitoring. 	<ul style="list-style-type: none"> Out-of-county resolution to sediment input. Prioritize/address other erosion inputs. Monitor water quality and coldwater fishery status, especially below East Branch.
Meadow Brook ↑ SUA-Yes	<ul style="list-style-type: none"> Major bacterial inputs (cross-connections) addressed. Overall conditions including habitat still restrict benthic fauna to pollution tolerant organisms. 	<ul style="list-style-type: none"> Volunteer stream monitoring. 	<ul style="list-style-type: none"> Continue volunteer monitoring. Assess feasibility of further habitat and water quality improvements.
Nine Mile Creek ⁹ ↑ SUA-Yes	<ul style="list-style-type: none"> Salts, industrial contaminants and physical habitat degradation associated with former industrial activities remain. 	<ul style="list-style-type: none"> Resolution through remediation of industrial contamination (Onondaga Lake). 	<ul style="list-style-type: none"> Completion of remedial measures to address industrial contamination (Onondaga Lake).
Nine Mile Creek ¹⁰ ↑ SUA-partial	<ul style="list-style-type: none"> Protection of high quality trout stream in light of land use changes. Instream habitat improvement project. Critical environmental areas established. 	<ul style="list-style-type: none"> Multiple monitoring efforts. Agricultural BMP planning/implementation in progress. 	<ul style="list-style-type: none"> Continue monitoring. Identify/implement watershed and habitat improvement needs. Continue agricultural BMP planning/implementation.

Notes:

- 7. Confluence to Manlius/Pompey town line.
 - 8. Town line to source at Deruyter Reservoir.
 - 9. Mouth at Onondaga Lake to Airport Rd.
 - 10. Airport Rd to source at Otisco Lake.
- ↑ Arrows denote general trend in water quality change
SUA- Yes or No indicates whether watercourse is located in the Syracuse Urban Area.

Waterbody	Status Compared to 2005	Recent Efforts/ Milestones	Future Actions
Oneida Lake → SUA-No	<ul style="list-style-type: none"> Oneida Lake Management Plan completed. Water quality conditions generally unchanged. Invasive species threats. 	<ul style="list-style-type: none"> Management Plan implementation. Prevent re-establishment of water chestnut. Agricultural BMP planning/implementation in progress. 	<ul style="list-style-type: none"> Management Plan implementation. Prevent re-establishment of water chestnut/establishment of other invasives. Continue agricultural BMP planning/implementation.
Oneida River ← SUA-partial	<ul style="list-style-type: none"> Previously identified problem of nutrients not supported by data. Water chestnut presence identified and severely reduced by control with Oswego Co. 	<ul style="list-style-type: none"> Water chestnut control initiatives with Oswego Co. and volunteers. Water quality monitoring. 	<ul style="list-style-type: none"> Maintain water chestnut control initiatives/multi-county coordination. Continue monitoring as needed.
Onondaga Creek ¹¹ → SUA-Yes	<ul style="list-style-type: none"> Urban source pollution with CSO discharges including bacteria/pathogens remain of concern. 	<ul style="list-style-type: none"> Gray/green corrective infrastructure projects in progress. County ambient monitoring program to measure improvements. Bacterial source investigative studies. 	<ul style="list-style-type: none"> Completion of green corrective infrastructure projects. Continue County ambient monitoring program.
Onondaga Creek ¹² → SUA-partial	<ul style="list-style-type: none"> Turbidity (mudboils) reduced, but issue remains due to recently identified mudboils. Habitat improvement projects. Agricultural and non-agricultural nonpoint sources of nutrients, sediments and pathogens need to be better delineated. 	<ul style="list-style-type: none"> County ambient monitoring/associated monitoring measuring water quality improvements/needs. Volunteer monitoring. Corps of Engineers Onondaga Dam Reservoir review. Agricultural BMP planning/implementation in progress. 	<ul style="list-style-type: none"> County ambient monitoring and associated monitoring to measure water quality improvements/needs. Identify/Implement additional water quality habitat improvements. Continued volunteer monitoring. Continue agricultural BMP planning/implementation.
Onondaga Creek ¹³ → SUA-No	<ul style="list-style-type: none"> Generally undisturbed headwater; trout fishery remains in need of protection. Subject to sedimentation from land disturbances /agricultural activity. 	<ul style="list-style-type: none"> Monitor stream water/habitat quality. Agricultural BMP planning/implementation in progress. 	<ul style="list-style-type: none"> Implement headwater habitat protection measures including land protection needs. Monitor stream water/habitat quality. Continue agricultural BMP planning/implementation.

Notes:

11. Mouth at Onondaga Lake to City of Syracuse boundary line.

12. City of Syracuse boundary to Mudboil Depression Area.

13. Mudboil Depression Area to source.

→ Arrows denote general trend in water quality change

SUA- Yes or No indicates whether watercourse is located in the Syracuse Urban Area

Waterbody	Status Compared to 2005 Water Quality Strategy	Recent Activities and/or Milestones	Future Actions
Onondaga Lake & Outlet ↑ SUA-Yes	<ul style="list-style-type: none"> Significant nutrient reductions resulting in improved trophic status with improvements in aquatic habitat and fish species composition. Industrial contamination remediation projects designed and being implemented. Quagga mussels identified. 	<ul style="list-style-type: none"> Efforts to remediate industrial water quality, sediment and biota contamination and to address CSO related contamination in progress. Ambient monitoring program measuring effectiveness of County's projects. Varied public education efforts. "Save the Rain" stormwater management program begun. 	<ul style="list-style-type: none"> Continue implementing programs under "recent activities and/or milestones." Continue monitoring effectiveness of County's projects. "Save the Rain" stormwater management program continued.
Oswego/Seneca River ↑ SUA-partial	<ul style="list-style-type: none"> Chloride stratification reduced near Lake Outlet/more natural in origin. Oxygen demand impacts from zebra mussels remain. Quagga mussels identified. Water chestnut control with Oswego County. Pollutants sources remain largely from areas upstream of Onondaga County. 	<ul style="list-style-type: none"> Ambient monitoring program measuring effectiveness of County's projects. Progress controlling water chestnut control at some locations. Agricultural BMP planning/implementation in progress. 	<ul style="list-style-type: none"> Resolution of upstream pollutant sources needed to be addressed on regional basis. Continue monitoring measuring effectiveness of County's projects. Continue water chestnut control as feasible. Continue agricultural BMP planning/implementation.
Otisco Lake ↑ SUA- No	<ul style="list-style-type: none"> Indications of improved water clarity due to zebra mussels. Overall water quality conditions unchanged, but data implies increase in sediment/some nutrients inputs. Northern part overabundant aquatic vegetation has expanded southward. Water chestnut found. 	<ul style="list-style-type: none"> Water supply protection/watershed rules/associated monitoring continued. Otisco Lake Preservation Association established. Aquatic vegetation control efforts/water chestnut near elimination. Grant for Otisco Lake Watershed Management Plan development obtained. Agricultural BMP planning/implementation in progress. 	<ul style="list-style-type: none"> Continue water supply protection/with monitoring. Complete Otisco Lake Watershed Management Plan. Continue lake quality/aquatic vegetation control improvement efforts. Continue agricultural BMP planning/implementation.
Pools Brook & tributaries ↑ SUA- No	<ul style="list-style-type: none"> No known change in water quality conditions. Continued pressure from land use changes. 	<ul style="list-style-type: none"> Agricultural BMP planning/implementation in progress. 	<ul style="list-style-type: none"> Continue volunteer water quality monitoring. Focus on stormwater generated pollution. Continue agricultural BMP planning/implementation.

Notes:

↑ Arrows denote general trend in water quality change.

SUA- Yes or No indicates whether watercourse is located in the Syracuse Urban Area .

Waterbody	Status Compared to 2005 Water Quality Strategy	Recent Activities or Milestones	Future Action Needed
Skaneateles Lake & tributaries → SUA- No (see note)	<ul style="list-style-type: none"> Water quality conditions remain of high quality. Watershed-specific sediment/erosion control requirements for construction projects implemented. Skaneateles Lake Land Protection Program completed. Eurasian water milfoil eradication effort begun. 	<ul style="list-style-type: none"> Filtration avoidance measures/water supply protection/SLWAP continued. Eurasian water milfoil eradication effort near maintenance level stage. 	<ul style="list-style-type: none"> Continue filtration avoidance effort / water supply protection/monitoring. Continue Whole Farm Planning Implementation/BMP support. Continue Eurasian water milfoil eradication effort at maintenance level stage.
Skaneateles Creek → SUA- No	<ul style="list-style-type: none"> Previous unknown source(s) of priority organic contamination identified, but issue remains. Concern towards non-agricultural non-point pollutant sources. 	<ul style="list-style-type: none"> Priority organic contamination issue remains to be addressed at the State level. Conventional pollutants monitoring shows generally good quality. Agricultural BMP planning/implementation in progress. 	<ul style="list-style-type: none"> Remediate organic contamination problem at the State level. Continue volunteer monitoring. Continue agricultural BMP planning/implementation.
Tully Lake → SUA- No	<ul style="list-style-type: none"> Water quality conditions unchanged. Implement aquatic plant control strategy with Cortland Co. and Tully Lake Property Owners Association. 	<ul style="list-style-type: none"> Identification of invasive starry stonewort with muskgrass as an aesthetic/ ecological concern. Continued aquatic plant control strategy. Lake and tributary monitoring. Agricultural BMP planning/implementation in progress. 	<ul style="list-style-type: none"> Continue lake watershed monitoring. Evaluate aquatic plant control strategy. Update lake management plan. Continue agricultural BMP planning/implementation.
Upper Troughnioga West Branch → SUA- No	<ul style="list-style-type: none"> Agricultural-derived sediments and nutrient inputs. Assist with aquifer protection. Focus since in Chesapeake Bay Watershed and TMDL requirements. 	<ul style="list-style-type: none"> Agricultural BMP planning/implementation in progress. 	<ul style="list-style-type: none"> Assessment of problem(s)/location(s) with diagnostic monitoring needed. Continue agricultural BMP planning/implementation.

Stormwater Management Requirements:

SUA-Yes, No, Partial indicates whether any of the listed waterbody is located within a regulated Municipal Separate Storm Sewer Systems (MS4) in the Syracuse Urban Area (See Figure 2). The automatically designated operator of the MS4 must develop, implement and enforce a stormwater management program to reduce the discharge of pollutants to the maximum extent practicable (MEP).

For MS4s in the Onondaga Lake watershed, there are additional requirements to reduce phosphorus from stormwater in order to meet water quality standards to assure fishing and swimming best uses.

Skaneateles Lake watershed an erosion/stormwater control plan is required if a project disturbs 5,000 ft² or more land in “environmentally sensitive” areas.

Owners of all construction activities disturbing at least one acre of soil must obtain a general construction permit prior to breaking ground regardless of whether or not the construction takes place within a regulated MS4 and must develop a stormwater management plan that includes provisions for managing post-construction stormwater runoff over the life of the project.

FIGURE 1

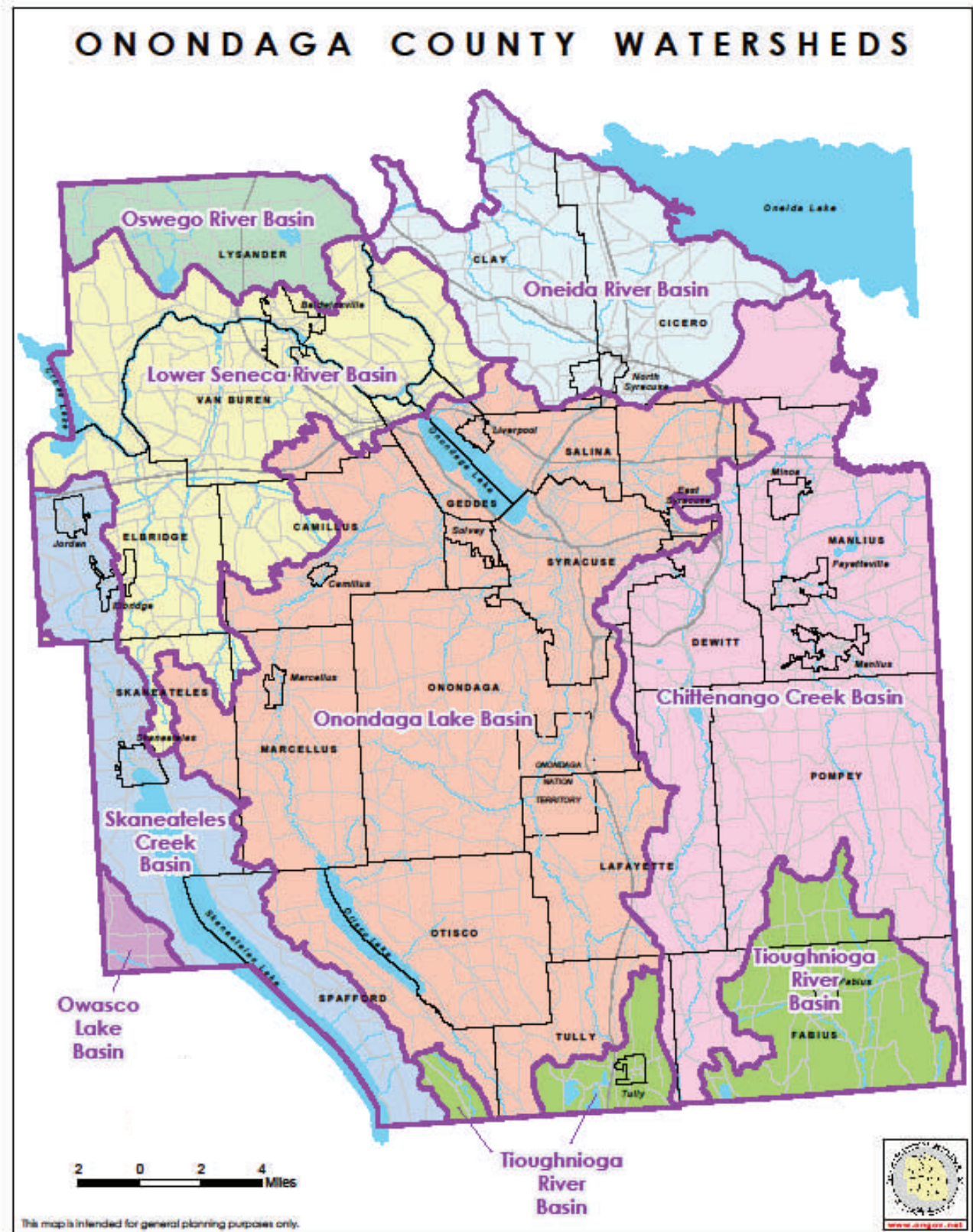


FIGURE 2

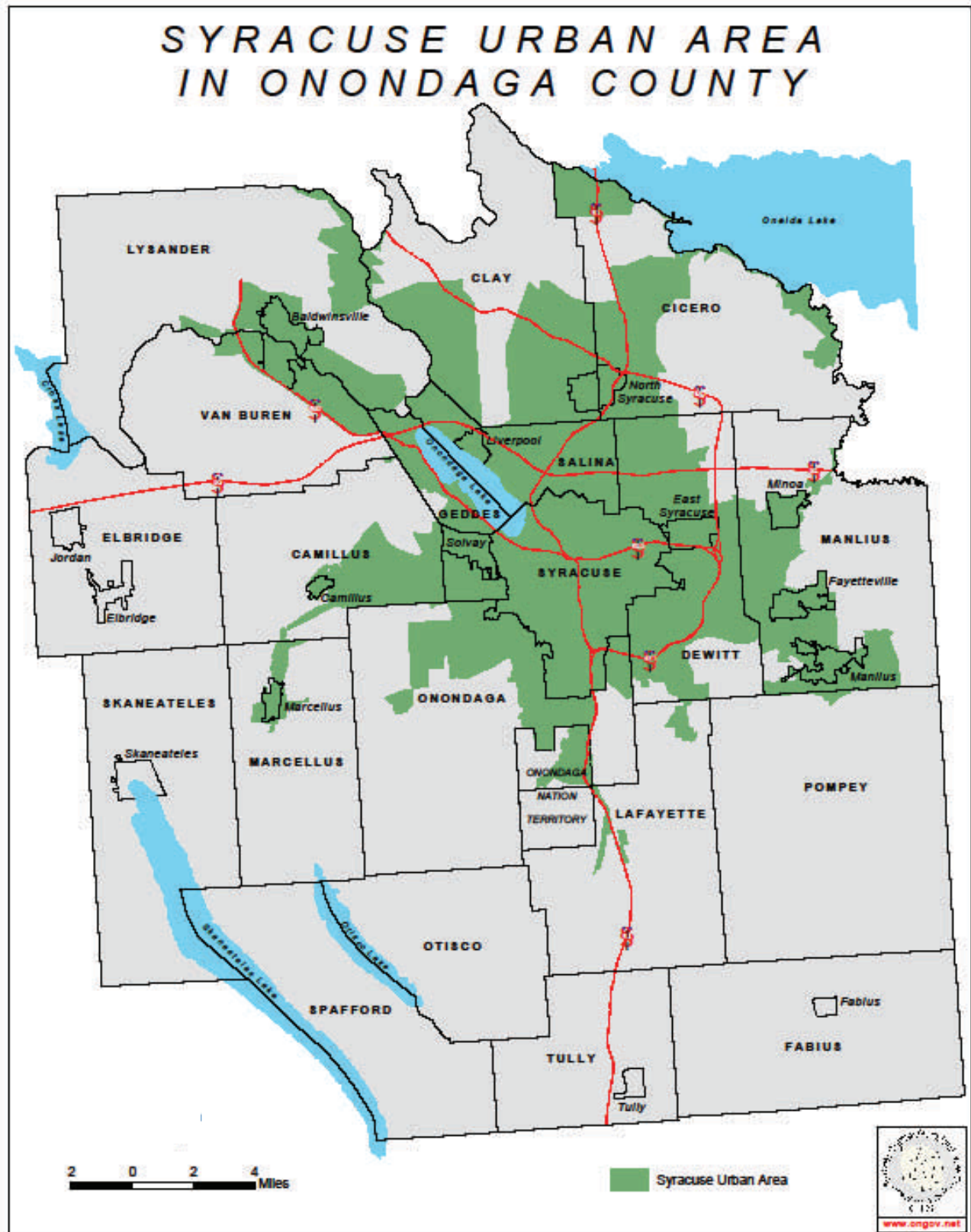


FIGURE 3

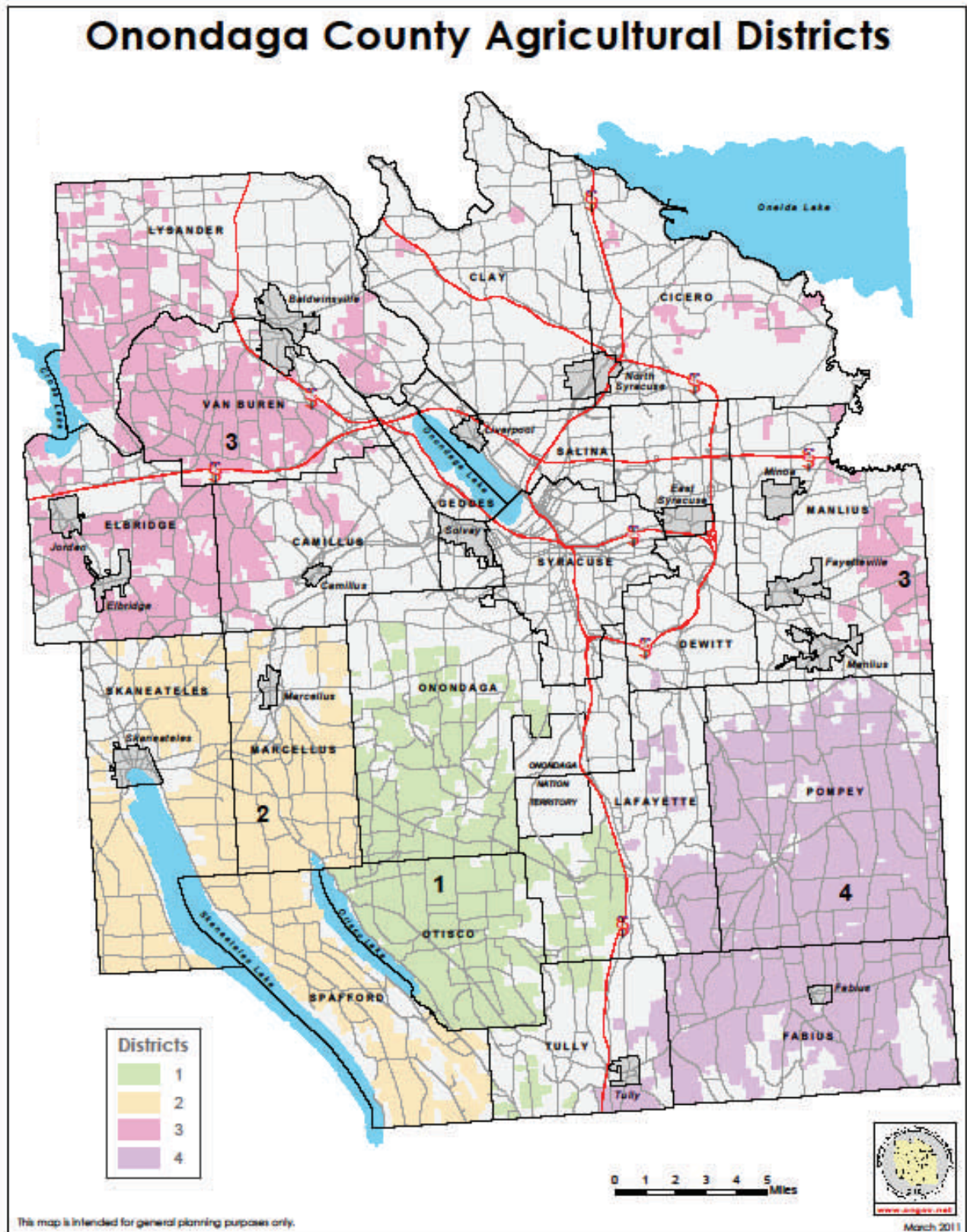


FIGURE 4



FIGURE 5

