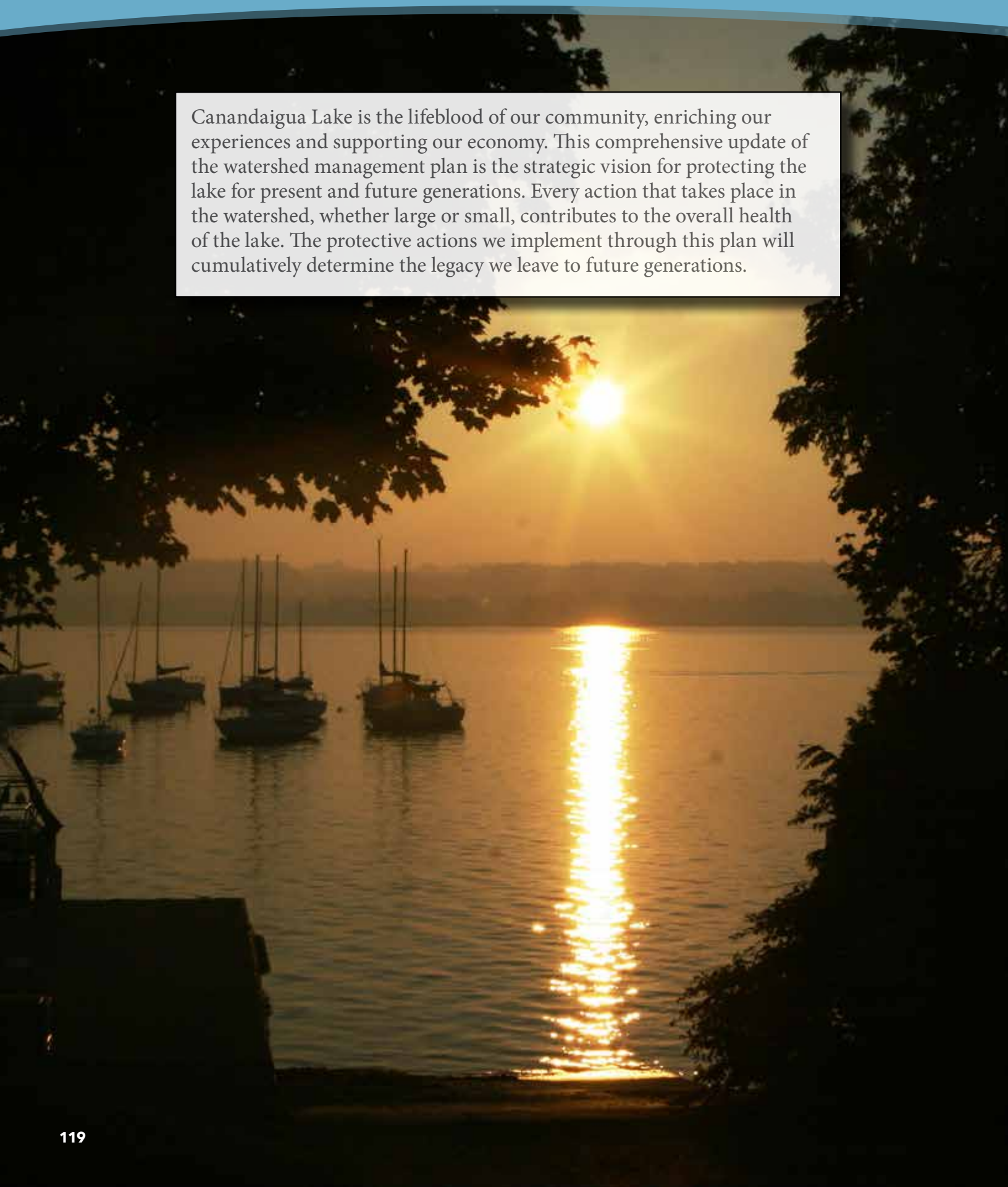
5. CONCLUSION



Canandaigua Lake is the lifeblood of our community, enriching our experiences and supporting our economy. This comprehensive update of the watershed management plan is the strategic vision for protecting the lake for present and future generations. Every action that takes place in the watershed, whether large or small, contributes to the overall health of the lake. The protective actions we implement through this plan will cumulatively determine the legacy we leave to future generations.

Encompassing the principles of integrated watershed management, this plan has a purposefully broad scope and range of techniques. Threats come from deep in the headwaters to the lake shore, from residential to agricultural lands, from recreation to commercial businesses. No single land use or single economic sector is responsible for water quality risks, but instead all are. This plan is comprehensive, incorporating diverse land uses and economic sectors, governmental entities, and private citizens.

Through this updated plan, we have built on the knowledge gained and projects completed over the last fourteen years to develop a more comprehensive strategy to protect Canandaigua Lake and its surrounding watershed from existing and emerging threats. The specific actions identified in this plan have been developed to manage and reduce the impacts from the wide ranging potential sources of pollution that are identified through our water quality research and the 13 management categories. These thirteen categories are all interdependent and therefore have strategies and actions that can transcend a specific category. This watershed management plan is designed to tackle each problem through the five main protection approaches of research, education, restoration, open space protection and regulation. These actions will provide protection from the individual site level all the way to actions that can have watershed wide impacts.

The real strength of this watershed protection effort comes from the collaboration amongst the many organizations working to protect the lake. The Canandaigua Lake Watershed Council is the lead agency coordinating the implementation of this plan and the overall protection efforts of the watershed. The Council is a unique entity, established fifteen years ago through an intermunicipal agreement by the fourteen municipalities and the various partners. The Council provides a framework for decision making and consistency across municipal boundaries, creating synergies rather than conflict. The Council also provides annual funding and oversight for the position of Watershed Program Manager, water quality monitoring program, education programming and base level funding for restoration projects. The watershed directly benefits from the Council's leadership, collaborative nature, and program funding.

The successful implementation of this plan also relies on many partnerships. The Canandaigua Lake Watershed Association is a citizen's group working to protect the lake. The Council and Association work together closely, collaborating on projects and facilitating communication between the Council and the community. In addition, the Council and Finger Lakes Community College collaborate on research and water quality monitoring. The Watershed Commission, through the Watershed Inspector, implements watershed rules and regulations that deal mainly with onsite wastewater systems. The Watershed Inspector and Program Manager work closely on many activities including the inspection of construction sites. The Council also works with the Finger Lakes Land Trust, the local Soil and Water Conservation Districts, Planning Departments, Cornell Cooperative Extension, the Nature Conservancy, and many others.

Ultimately, protection of the lake relies on the support of watershed residents. This plan is intended to be used by the entire watershed community to protect the beauty of the lake and its watershed, preserve drinking water quality, enrich recreational opportunities, enhance aquatic habitat, and expand the local economy and well-being of the Canandaigua Lake watershed community. Many small actions led to significant improvements to the watershed. Through involvement of the entire watershed community, our legacy can be one of collaborative, inclusive management and a high quality lake that supports our community.

The following table breaks down each of the strategies and provides critical information for implementation, including approximate timeline, approximate cost, potential partners, benchmarks for success and which of the five protection approaches will be utilized.

APPENDIX

APPENDIX 1. IMPLEMENTATION TABLE

Table Key

PARTNERS LIST WITH ABBREVIATION

Partner	Abbreviation	Partner	Abbreviation
Canandaigua Lake Watershed Council	WC	Finger Lakes Community College	FLCC
Canandaigua Lake Watershed Association	WA	Nature Conservancy	TNC
NYS- Dept. of Environmental Conservation	DEC	County Planning Department	P
Soil and Water Conservation District	SWCD	County Public Works	PW
Cornell Cooperative Extension	CCE	Genesee Finger Lakes Regional Planning Council	GFL
Finger Lakes Land Trust	FLLT	NY Dept of Transportation	DOT
Finger Lakes Institute	FLI	United State Geologic Survey	USGS
Municipalities	Munis	Watershed Commission (Inspector)	WI
Department of Health	DOH	Natural Resource Conservation Service	NRCS
Ontario/Yates County Emergency Management	EM	OC Information Services	IS

COST ESTIMATES:

$ = $1,000-$10,000 **$$= $10,000- $25,000** **$$$= $25,000-$100,000** **$$$$= >$100,000**

Category	ID	Strategies	Management Approach					Time-frame	Potential Partners	Cost	Evaluation Criteria
			Research	Education	Restoration	Open Space Protection	Regulation				
Existing and New Development	**1**	**Increase municipal management of stormwater**									
	1A	Assist municipalities meet MS4 regulations.	x	x	x	x	x	Ongoing	WC, Munis, WA, SWCD	$$	Yearly compliance
	1B	Encourage adoption of Enhanced Phosphorus Treatment Standards for new development.		x			x	2015-ongoing	Munis, WC	$	# of municipalities adopted
	1C	Continue and enhance the review of development plans and inspections of construction sites.		X			x	Ongoing	WC, Munis	$	# of plans reviewed and sites inspected
	1D	Inventory and evaluate stormwater ponds and promote enhancements.	x		x			2015-ongoing	WC, Munis	$$	# of ponds evaluated and enhanced
	1E	Host stormwater and erosion control trainings.		x			x	Ongoing	SWCD, WC, P, Munis	$	# of trainings and # of people trained
	1F	Conduct outreach on stormwater runoff and green infrastructure.		x		X		Ongoing	WC, WA,	$	# of mailings and presentations
	1G	Continue and enhance the storm drain marking program.		x				Ongoing	WC, WA, Munis	$	# of storm drain markers installed
	1H	Assist PBs and ZBAs on decisions that can impact water quality/quantity		x			x	Ongoing	WC, P, GFL, SWCD	$	workshops and attendance at PB and ZBA meetings
	2	**Encourage local-level comprehensive land use planning**									
	2A	Improve regulatory protection of environmentally sensitive areas.				X	x	2014-ongoing	P, WC, WA, Munis	$$	adoption of various laws and municipalities
	2B	Incorporate green infrastructure, low impact development, and urban forestry in development designs.				X	x	2014-ongoing	P, WC, WA, Munis	$	adoption of various laws and municipalities
	2C	Develop standards for the maximum allowable impervious surface coverage for the developable portion of the parcel.				X	x	2014-ongoing	P, WC, WA, Munis	$	model standards established
	3	**Expand green infrastructure and low impact development**									
	3A	Encourage prioritization of highly important lands for open space projects.	x		x	x		2013-ongoing	WC, FLLT, WA, P	$$	natural capital study complete
	3B	Continue and enhance green infrastructure/stormwater retrofit projects.	x	x	x	x		Ongoing	Munis, WC, WA, SWCD	$$$$	# of GI projects installed per year
	3C	Consider an incentives program for green infrastructure and LID projects.		x		X	x	2016-ongoing	Munis, WC, WA, SWCD, P	$$	Adoption of an incentives program
	3D	Develop funding mechanisms for green infrastructure.				x	x	2017-ongoing	Munis, WC, WA, SWCD, P	$$$$	TBD
Lawn and Landscaping Practices	**1**	**Improve educational programs on fertilizer and pesticide use.**									
	1A	Coordinate and enhance educational outreach on lawn and landscape practices.		x				Ongoing	WC, WA, CCE, SWCD, Munis	$$	# of new publications and mailings
	1B	Promote the NYS DEC fertilizer ban to the public.		x				Ongoing	WC, WA, DEC	$	# of presentations and mailings
	1C	Promote the City Turf and Landscape Management Policy		x			x	Ongoing	WC, WA, CCE, SWCD, Munis	$	# of presentations and mailings
	1D	Place Integrated Pest Management information on the website.		x				Ongoing	WC, WA, CCE, SWCD, Munis	$	# of new publications and mailings
	1E	Conduct outreach on Integrated Pest Management.		x				Ongoing	WC, WA, CCE, SWCD, Munis	$	# of new publications and mailings
	1F	WA development of a lake-friendly lawn care company standard.		x				2016-ongoing	WC, WA, CCE, SWCD, Munis	$	# of new publications and mailings
	1G	Encourage use of green infrastructure on residential/commercial properties.		x				Ongoing	WC, WA, CCE, SWCD, Munis	$	# of new publications and mailings
	2	**Monitor streams and lake for pesticides**									
	2A	Conduct baseline pesticide water quality study in lake.	x	x				2017-ongoing	WC, WA, USGS	$	Certified lab results for multiple lake and stream locations
	3	**Proper disposal of household chemicals**									
	3A	Hold more frequent household hazardous waste collection days.		x			x	2016 - ongoing	OC, WC	$$$	holding a second drop-off day

Category	ID	Strategies	Management Approach: Research	Education	Restoration	Open Space Protection	Regulation	Time-frame	Potential Partners	Cost	Evaluation Criteria
Municipal Roads and Highway Facilities	**1**	**Increase educational and technical support for local highway officials**									
	1A	Collaborate to ensure proper culvert sizing and environmental permits.		x			x	Ongoing	PW, WC, SWCD, Munis	$$$$	# of culverts sized through looking at the whole drainage area
	1B	Host Cornell Local Roads Program training.		x				2016-ongoing	PW, WC, SWCD, Munis	$	Training event and # of attendees
	1C	Apply for grant funding for road and roadside ditch management.		x	x			Ongoing	PW, WC, SWCD, Munis	$$$$	Successful grants, miles of roads stabilized
	1D	Encourage ditch design and management that reduces erosion.		x				Ongoing	PW, WC, SWCD, Munis	$$	# of trainings with local highway officials
	2	**Reduce roadside ditches as a source of sediment pollution**									
	2A	Identify erosion risks and prioritize management.	x		x			Ongoing	PW, WC, SWCD, Munis, WI	$	Communicate road bank issues with highway superintendents
	2B	Stabilize highly eroding roadside ditch banks.			x			Ongoing	PW, WC, SWCD, Munis, WI	$$$$	# of miles of road bank ditches stabilized
	3	**Break the hydrologic connection from the landscape to the roadside ditches to the streams.**									
	3A	Encourage on-site retention/infiltration of stormwater.		x	x		X	Ongoing	PW, WC, SWCD, Munis, WI	$$	Site plan review requirements, # of field outreach efforts
	3B	Encourage the use of cross culverts and levelers.		x	x			Ongoing	PW, WC, SWCD, Munis, WI	$$$	# of field outreach efforts
	3C	Educate landowners on roadside ditch hydrology.		x				Ongoing	PW, WC, SWCD, Munis, WI	$	# of mailings and field outreach efforts
	4	**Reduce the impact of de-icing salts on tributary water quality.**									
	4A	Continue monitoring salt concentrations in the lake and tributaries.	x	X				Ongoing	FLCC, WC	$	Annual monitoring
	4B	Ensure proper salt/sand mixing and loading, truck calibration and sensible salting education programs		x				Ongoing	Munis, WC, WA	$$$	# of trucks with calibration equipment, # of salt storage barns
	5	**Manage stormwater runoff and spills at highway department facilities**									
	5A	Ensure proper chemical management and building designs/maintenance at highway facilities.		x			x	Ongoing	Munis, WC, DEC	$$	Audits of each highway facility
	5B	Document spill and leak prevention and response practices and staff training. Verify compliance with DEC bulk fuel and chemical storage regulations.		x			x	Ongoing	Munis, WC, DEC	$$	Audits of each highway facility
	5C	Treat highway facility runoff with bio-retention and filter areas.		x	x			Ongoing	Munis, WC	$$	# of highway facilities with stormwater management solutions

Category	ID	Strategies	Management Approach: Research	Education	Restoration	Open Space Protection	Regulation	Time-frame	Potential Partners	Cost	Evaluation Criteria
Watercourse and Shoreline Management	**1**	**Monitor streambanks and shorelines for erosion and lack of buffers**									
	1A	Complete a comprehensive update to the GIS stream layer.	x					2016-ongoing	IS, P, WC, SWCD, Munis	$$	Comprehensive update of stream mapping
	1B	Continue to visually survey and evaluate streamside and shoreline areas.	x					Ongoing	WC, Munis	$	Field inspections during storm events
	2	**Protect, restore and stabilize streamside areas**									
	2A	Identify streamside and shoreline landowners and conduct educational outreach.	X	x				2016-ongoing	WC, WA, IS	$	# of mailings
	2B	Provide funding and/or technical assistance to private landowners on stream improvements where there will be public benefit.			x			Ongoing	WC, Munis, WA, SWCD	$$$$	# of projects completed
	2C	Encourage use of open space funds to protect critical streamside areas.			x	x		Ongoing	Munis, WC, WA, FLLT	$$$$	# of projects completed
	2D	Work with farmers to expand streamside protection measures on farms.			x	x		Ongoing	SWCD, Munis, WC	$$$$	# of projects completed
	2E	Encourage adoption of setback and overlay ordinances in streamside areas.					x	2016-ongoing	Munis, WC, WA	$	# of towns adopting setback laws from streams
	3	**Protect shoreline areas**									
	3A	Encourage softer vegetative/rock shoreline management strategies.		x			x	Ongoing	Munis, WC, DEC, WA	$	# of laws enacted
	3B	Encourage improvements to zoning ordinances within 100 feet of the lake.		X			x	Ongoing	Munis, WC, P, WA	$	# and quality of laws adopted
	3C	Encourage Zoning Board of Appeals to not grant variances to stream and shoreline setbacks.		X			x	Ongoing	Munis, WC, P, WA	$	# of variances granted
	3D	Encourage dock designs that protect water quality.		x			X	Ongoing	Munis, WC, WA, DEC	$	Strict enforcement of dock law
	3E	Ensure the Uniform Docks and Moorings Law is uniformly enforced and variances aren't granted.					x	Ongoing	Munis, WC, P	$	Strict enforcement of law
Wetlands and Floodplains	**1**	**Protect, restore and create wetlands and floodplains**									
	1A	Complete the Natural Capital Project and utilize for public education.	x	X				2016-ongoing	WA, WC, FLLT, FLCC	$$	Natural capital study complete
	1B	Utilize municipal funds and incentive programs to promote, restore, and create wetlands and floodplains.			x	x		Ongoing	Munis, WC, FLLT, WA	$$$$	Acres of wetlands restored/created
	1C	Encourage adoption of local laws and/or site plan review process for wetland and floodplain protection/restoration.					x	2016-ongoing	Munis, WC, WA, P	$	Enhanced wetland and floodplain regulations
	1D	Encourage wetland mitigation banking through partnerships to add wetlands in the watershed.			x		x	2016-ongoing	Munis, WC, FLLT, WA, DEC	$$$$	Net increase in wetlands through banking
	2	**Expand floodplain regulations**									
	2A	Work to get update to flood zone studies and mapping.	x				x	2017-ongoing	FEMA, Munis, WC	$$$	Selected areas get updated floodplain maps
	2B	Encourage adoption of local laws beyond National Flood Insurance Program minimums.					x	2017-ongoing	Munis, WC	$$	# of municipalities adopt laws above minimum standards
	2C	Host training events for local floodplain administrators.		x			x	2016-ongoing	Munis, WC, DEC	$	# of training events and attendees
	2D	Encourage participation in the Community Rating System.		x			x	2016-ongoing	Munis, WC, DEC	$$	Participation in CRS
	2E	Educate landowners both in and out of the flood zone on flood risks, insurance and protection measures		x				2016-ongoing	Munis, WC, WA, DEC	$	# of training events and attendees

Category	ID	Strategies	Management Approach: Research	Education	Restoration	Open Space Protection	Regulation	Time-frame	Potential Partners	Cost	Evaluation Criteria
Wastewater Management	**1**	**Encourage municipalities to strengthen onsite wastewater system rules and regulations**									
	1A	Encourage adoption of inspection of onsite system at deed transfer local law		x			x	2016-ongoing	WI, WC, Munis, DOH, SWCD	$	# of municipalities adopting law
	1B	Encourage improvements to requirements for onsite system design, repairs, and upgrades.		x				2016-ongoing	WI, WC, Munis, DOH, SWCD	$	# of municipalities adopting law
	1C	Encourage verification of onsite systems location and suitability prior to site plan reviews and building permits.		x			x	2016-ongoing	WI, WC, Munis, DOH, SWCD	$	# of municipalities adopting law
	1D	Encourage requirements for onsite system inspections every 5 years within 200 feet of the lake.		x			x	2016-ongoing	WI, WC, Munis, DOH, SWCD	$	# of municipalities adopting law
	1E	Consider a local law requiring verification that rental property occupancy matches onsite system capabilities.		x			x	2016-ongoing	WI, WC, Munis, DOH, SWCD	$	# of municipalities adopting law
	1F	Formalize relationship between Watershed Inspector and municipalities on stricter onsite system code.		x			x	2016-ongoing	WI, WC, Munis, DOH, SWCD	$	# of municipalities adopting law
	2	**Finalize and maintain spatial database of onsite systems**									
	2A	Convert all records of onsite systems into a GIS database.	x					2015-ongoing	WI, WC, SWCD	$$	All paper files in GIS database
	2B	Track all enhanced treatment onsite systems.	x				x	2015-ongoing	WI, WC, SWCD	$	Tracking systems for enhanced treatment systems
	3	**Educate landowners on proper onsite system use and maintenance**									
	3A	Continue to provide realtor workshops.		x				Ongoing	WC, WI, SWCD, DOH	$	# of workshops
	3B	Conduct educational workshops for onsite system owners.		x				Ongoing	WC, WI, SWCD, DOH	$	# of workshops
	3C	Send educational mailings to all onsite system owners.		x				2016-ongoing	WC, WI, SWCD, DOH	$	# of mailings
	3D	Conduct targeted outreach to enhanced treatment unit owners.		x				2016-ongoing	WC, WI, SWCD, DOH	$	# of mailings
	3E	Create and distribute a list of funding sources for economically-disadvantaged onsite owners.		X				Ongoing	WC, WI, SWCD, DOH	$	# of mailings
	4	**Improve and extend centralized wastewater collection and treatment where appropriate**									
	4A	Provide technical assistance to the Village of Naples on sewer and wastewater treatment facility implementation.	X		X			2017?	WC, WI, P, PW, DOH	$$$$	Insulation of sewer system
	4B	Provide technical assistance to the Village of Rushville on their inflow/infiltration study.	X	X	X			2015-ongoing	WC, WI, DOH	$$$	Completed study
	4C	Work on future sewer and centralized wastewater treatment projects.	X					Ongoing	PW, Munis, WI, WC, DOH	$$$$	TBD
	4D	Encourage permission from county for out-of-district users to connect to nearby existing sewer lines.		X				Ongoing	PW, Munis, WI, WC, DOH	$$	TBD
	5	**Continue and enhance collaboration on SPDES facilities**									
	5A	Ensure Watershed Inspector has access to all SPDES facility sampling data.					X	2015-ongoing	WI, DEC, WC, DOH	$	Transfer of information from DEC to WI
	5B	Coordinate enforcement and remediation of SPDES permit violations.					X	2015-ongoing	WI, DEC, WC, DOH	$	Successful remediation of permit violations
	6	**Prevent water contamination through use of toilets, sinks, and stormwater drains for disposal.**									
	6A	Review science on pharmaceuticals, cosmetics, cleaning products, and toxic substances in home wastewater.	X	X				2015-ongoing	WC, WI, DOH, DEC	$	Continued research
	6B	Assist with pharmaceutical drop off programs.		X				2015-ongoing	WC, WI, DOH, DEC, Sheriff	$$	Enhanced educational efforts, advertisements
	6C	Encourage additional household hazardous waste drop offs.			X			2015-ongoing	WC, WI, DOH, DEC, Sheriff	$$$	Additional drop off per year/ additional location
	6D	Encourage stores to post educational materials on proper disposal of pharmaceuticals, cleaning products and toxic substances.		X				2015-ongoing	WC, WI, DOH, DEC, Sheriff	$	Enhanced educational efforts, advertisements

Category	ID	Strategies	Management Approach					Time-frame	Potential Partners	Cost	Evaluation Criteria
			Research	Education	Restoration	Open Space Protection	Regulation				
Agriculture	**1**	**Promote and partner on the programs offered by Soil and Water and NRCS.**									
	1A	Encourage farms to adopt healthy soil practices.		X				2015-ongoing	SWCD, NRCS, WC, CCE	$	TBD
	1B	Promote best management practices that are compatible with Mennonite interests.	X		X			2015-ongoing	SWCD, NRCS, WC, CCE	$	Successful projects with Mennonite farmers
	1C	Support and enhance grant funding for farm applications where beneficial			x	x		2015-ongoing	SWCD, NRCS, WC, CCE	$$$	Continued cost share support
	1D	Encourage NRCS and SWCD to showcase existing best management practices and invigorate the Agricultural Program Committee.		X	X			2015-ongoing	SWCD, NRCS, WC, CCE	$$	More public display of successful projects
	1E	Encourage farmer compliance with Highly Erodible Lands and tolerable soil loss requirements.		X	X	X		2015-ongoing	SWCD, NRCS, WC, CCE	$$	NRCS enforcement of these requirements
	1F	Work with farms that spread liquid manure to take precautions, including weather considerations and manure incorporation.		X				2015-ongoing	SWCD, NRCS, WC, CCE	$$	Reduction in farm liquid manure runoff during storm events
	1G	Encourage 100 foot buffer from watercourses and road ditches when spreading manure even if there is a vegetative buffer and/or 24 hour incorporation		X	X	X		2015-ongoing	SWCD, NRCS, WC, CCE	$$	Reduction in farm liquid manure runoff during storm events
	1H	Utilize alternative sources to fund ag. water quality projects if farmer does not want to participate in federal/state program requirements		X	X	X		2015-ongoing	SWCD, NRCS, WC, CCE	$$$	WC and WA funding of projects
	2	**Promote buffers between agricultural lands and adjacent streams and roadside ditches.**									
	2A	Encourage the use of open space funds to protect critical streamside and roadside buffers.		X	X			2015-ongoing	Munis, FLLT, WC, WA, SWCD	$$$$	# of projects implemented
	2B	Promote and distribute information on funding sources for vegetative buffers.		X				2015-ongoing	Munis, FLLT, WC, WA, SWCD	$	# of projects implemented
	2C	Work with farmers to reduce the ditching of streams.		X	X			2015-ongoing	Munis, FLLT, WC, WA, SWCD	$	Increase communication with farmers to not ditch streams
	2D	Restore the hydrologic connection between streams and their downstream wetlands.			X			2015-ongoing	Munis, FLLT, WC, WA, SWCD	$$$	# of projects completed

Category	ID	Strategies	Management Approach: Research	Education	Restoration	Open Space Protection	Regulation	Time-frame	Potential Partners	Cost	Evaluation Criteria
Invasive Species, Harmful Algal Bloom and Fish Kill Management	**1**	**Establish an early detection and rapid response protocol for invasive species**									
	1A	Continue working with local invasive species and academic institutions to understand invasion risks.	X	X				2015-ongoing	FLI, WA, WC, SWCD, FLCC	$	Presentations by experts to watershed organizations
	1B	Continue and enhance monitoring for early detection of invasive species, with specific emphasis on Hydrilla.	X					2015-ongoing	FLI, WA, WC, SWCD, FLCC	$$	Annual investigation of invasive species at hot spots
	1C	Create a group of trained volunteers to monitor for invasive species.	X	X				2015-ongoing	FLI, WA, WC, SWCD, FLCC	$$	Maintain trained volunteers
	1D	Continue and enhance efforts to monitor and eradicate water chestnut from the West River.			x			2015-ongoing	FLI, WA, WC, SWCD, FLCC	$$$	Eradication of water chestnut
	2	**Prevent the spread of invasive species from recreation**									
	2A	Promote the local funding of the Watercraft Steward Program and advocate for continued state funding.	X	X				2015-ongoing	WA, WC	$$	Maintain and enhance watercraft steward program
	2B	Put signage on boat cleaning techniques at all boat launches and points of interest on the forthcoming water trail.		X				2015-ongoing	WA, WC, FLI	$$$	High quality signs at each launch
	2C	Evaluate the need and feasibility of installing boat wash stations and invasive species disposal containers.	X					2015-ongoing	WA, WC, FLI	$$$$	Installation of boat watch station at North End only if permanently and/or self funded
	2D	Conduct outreach and education on invasive species to area residents.		X				2015-ongoing	WA, WC, FLI	$$	# of workshops and mailings
	3	**Develop protocol for monitoring and managing harmful algal blooms**									
	3A	Work with partners to maintain and enhance an algal bloom monitoring protocol for toxins.	X					2015-ongoing	DEC, FLCC, WC, WA, DOH	$	Obtain protocol from DEC and DOH
	3B	Ensure watershed management is addressing factors that increase algal blooms.	X					2015-ongoing	DEC, FLCC, WC, WA, DOH	$$$$	Maintain phosphorus levels below 10 micrograms per liter
	4	**Develop a fish kill action plan**									
	4A	Host a meeting to review the 2013 and 2014 fish kill and to determine governmental role in response.	X	X				2015-ongoing	DEC, DOH, Munis, WC, EM	$	Meeting occurred and recommendations established for government involvement
	4B	Determine thresholds for governmental involvement in fish kill management and plans should thresholds be met.	X	X				2015-ongoing	DEC, DOH, Munis, WC, EM	$	Meeting occurred and recommendations established for government involvement
	4C	Develop educational materials on safe fish collection and disposal and when/how to report fish kills.		X				2015-ongoing	DEC, DOH, Munis, WC, EM, WA	$	Educational materials developed and mailed

Category	ID	Strategies	Management Approach: Research	Education	Restoration	Open Space Protection	Regulation	Time-frame	Potential Partners	Cost	Evaluation Criteria
Recreation	**1**	**Ensure safe water quality for public swimming beaches**									
	1A	Periodically assess water quality monitoring wells in the Kershaw Swim Beach.	X					2015-ongoing	DEC, DOH, City, WC	$	Wells are sampled and results provided
	1B	Act as a local clearinghouse for water quality monitoring data from public swimming beaches.	X					2016-ongoing	WC, Munis	$	Sample results for different beaches sent to WC
	1C	Consider larger setbacks from public beaches for boaters, especially at Kershaw Beach.	X				X	2016-ongoing	City, WC, DOH	$	TBD
	2	**Reduce the impact of boating on water quality and important ecosystems**									
	2A	Advertise existing boat pump stations and possibly construct more pump stations.		X				2017-ongoing	Munis, DEC, WC, WA	$$	Better advertisement of boat pump stations
	2B	Consider constructing transient use docks at the north end area to allow easier access to restroom facilities.			X			2017-ongoing	Munis, DEC, WC, WA	$$$$	Obtain grant to install dock for transient use only
	2C	Encourage boat owners to keep engines in good working order and to use low impact techniques in sensitive areas.		X				2017-ongoing	Munis, DEC, WC, WA	$	Educational information at launches
	2D	Educate the public on how to prevent the spread of invasive species and fish diseases.		X				2017-ongoing	Munis, DEC, WC, WA	$$	Educational information at launches and mailings
	3	**Increase compatibility among different recreational uses and improve safety**									
	3A	Create the Water Trail for Canoes and Kayaks and promote its use.		X	X			2016-ongoing	USPS, WC, WA, Munis, PW	$$$	Creation of the water trail plan and installation of numerous access and destination points
	3B	Strictly enforce boat slip restrictions under the Uniform Docks and Moorings Law.					X	2016-ongoing	USPS, WC, WA, Munis, PW	$$	No variances
	3C	Increase enforcement of noise, reckless boating and speed violations.					X	2016-ongoing	USPS, WC, WA, Munis, PW, Sheriff	$$	Increased boat hours for sheriff
	3D	Strictly scrutinize projects that would promote additional boat access in the northern third and further boat congestion.					X	2016-ongoing	USPS, WC, WA, Munis, PW	$	No additional tier 2 facilities in northern third of the lake
	4	**Ensure marinas are not contributing to water quality problems**									
	4A	Verify that all marinas are complying with SPDES requirements.					X	2016-ongoing	DEC, WC, WA, Munis	$	Periodic inspections of all marinas
	4B	Conduct a workshop for marina operators and provide educational materials on best management practices.		X				2016-ongoing	DEC, WC, WA, Munis	$	Workshop completed
	4C	Encourage marina owners to post educational materials and host workshops for members.		X				2016-ongoing	DEC, WC, WA, Munis	$	Provide and install educational materials at marinas
	5	**Protect important fish habitat in Canandaigua Lake and the Naples Creek Complex**									
	5A	Support projects in the Naples Creek Complex to protect and enhance fish habitat.			X	X		2015-ongoing	DEC, WC, WA	$$$$	Study complete
	5B	Complete study of near shore littoral zone to identify and prioritize areas for protection.	X		X			2016	DEC, WC, WA	$$	# of projects completed

Category	ID	Strategies	Management Approach: Research	Education	Restoration	Open Space Protection	Regulation	Time-frame	Potential Partners	Cost	Evaluation Criteria
Lake Level Management	**1**	**Continue to manage lake levels using the Guide Curve**									
	1A	Continue to monitor lake levels daily and post to NOAA website.	X	X				Ongoing			
	1B	Access the feasibility of gathering continuous and instantaneous lake level readings and making readings publicly-available.	X	X				2015-ongoing	City, WC, USGS	$$	Lake level readings available through internet
	1C	Continue to manage lake levels using the Guide Curve, weather, and institutional knowledge.			X		X	2015-ongoing	City, WC	$	reduced low and high level frequency through lake level management
	2	**Implement drought management protocols when necessary**									
	2A	Assist in the implementation of the Drought Water Use and Lake Level Management Strategy.					X	2015 - ongoing	City, WC	$	
	2B	Encourage the 5 other water purveyors to implement the Drought Water Use and Lake Level Management Strategy.		X			X	2017	WC, and City	$	Policy implemented by other purveyors
	2C	Educate the public on the Drought Management Protocol.		X			X	2016	Munis, WC	$	mailings, public service announcements
Forestry	**1**	**Minimize soil erosion from timber harvest operations**									
	1A	Advertise the arch culvert loan program to timber harvesters and foresters.		X	X			2016	WC, Munis	$	mailings, handouts located at southern watershed towns
	1B	Continue to assist municipalities adopt and implement the Model Timber Harvest Law.					X	2017	Munis, WC	$	# of municipalities that adopt law
	1C	Promote the use of forestry best management practices as described by the DEC field guide.		X				2015 - ongoing	WC, DEC, ESF and Munis	$	print and make field guide available at towns
	2	**Facilitate training and education for land owners and forestry professionals**									
	2A	Promote existing programs and organizations that provide education on forestry best management practices.		X				2015 - ongoing	WC, DEC, ESF and Munis	$	print and make field guide available at towns
	2B	Continue to host training workshops for land owners and forestry professionals.		X				2015 - ongoing	WC, DEC, ESF and Munis	$	print and make field guide available at towns
	3	**Encourage active partnerships between municipalities and forestry professionals**									
	3A	Encourage the use of open space funds for Conservation Easements on working forest lands.				X		2015 - ongoing	WC, DEC, ESF and Munis	$	model demonstation easement with Land Trust
	3B	Utilize the registration law to educate the logging community on erosion control and water quality fines.		X			X	2015 - ongoing	WC, DEC, ESF and Munis	$	print and make field guide avail at towns
	3C	Work to reduce disincentives associated with NYS Forest Tax Law - 480a.					X	2015 - ongoing	WC, DEC, ESF and Munis	$	write letter to state legislator

Category	ID	Strategies	Management Approach: Research	Education	Restoration	Open Space Protection	Regulation	Time-frame	Potential Partners	Cost	Evaluation Criteria
Mining and Natural Gas Extraction	**1**	**Reduce water quality risks from mined sites within the watershed**									
	1A	Maintain an inventory of active and inactive mining sites and periodically check for pollution during storm events.	X					2017	WC, WI, DEC, Munis	$	GIS map and field survey with DEC
	1B	Provide educational materials on water quality to mine operators and municipalities.		X				2018	WC, WI, DEC, Munis	$	DEC materials printed
	1C	Encourage inclusion of mining operations in local stormwater regulations.					X	2016	WC, WI, DEC, Munis	$	include in local regulations
	2	**Protect against impacts related to high volume hydraulic fracturing**									
	2A	Encourage NYS to provide protection equal to that for Skaneateles Lake and the NYC Watershed.		X			X	2016	DEC, Munis, WC, WA	$	state level equal protection
	2B	Support scientific research on the cumulative impacts from high volume hydrofracking.	X				X	2016	Munis, WC, WA	$$	DOH and other studies
	2C	Encourage municipalities to prohibit high volume hydrofracking in the watershed plus a buffer.		X			X	2016	Munis, WC, WA	$$	# of municipalities with local law adoption
	2D	Provide technical support on municipal review of land use regulations and road use agreements pertaining to hydrofracking.	X				X	2016	Munis, WC, WA	$	WC involvement and assistance
	2E	Encourage public and private water purveyors to not provide lake water to hydrofracking operators.		X			X	2016	Munis, WC, WA	$	TBD
	2F	Recommend that municipal and private wastewater treatment plants not accept hydrofracking waste.		X			X	2016	Munis, WC, WA	$	policies established at each WWTP
	2G	Recommend that hydrofracking brine not be used as a deicing agent on roads.		X			X	2016	DOT, Munis, WC, WA	$	policies established at each municipal and DOT facility
	2H	Monitor hydrofracking sites and waste disposal if hydrofracking is permitted.	X				X	2016	DEC, Munis, WC	$$	weekly inspections during active period
Chemical Contamination Prevention	**1**	**Continue and enhance state and local collaboration on chemical regulation violations, spills and remediation**									
	1A	Provide technical assistance to DEC for investigation, containment, and remediation of contaminated sites and spills.	X				X	Ongoing	DEC, WC	$	WI and Manager continue to work with DEC
	1B	Enhance access to training for all relevant local officials.		X				Ongoing	DEC, WC	$	training session
	1C	Evaluate current spill containment materials and acquire more materials if necessary.	x	x				2015	DEC, WC, OC	$$	complete inventory with Emergency Management
	1D	Assist on grant proposal writing to help further remediation efforts.			X			2016-ongoing		$	successful grants
	2	**Reduce accidental spills of chemical from residential uses**									
	2A	Conduct outreach on proper storage of petroleum and other chemical products.		X			X	2016 - ongoing	DEC, WC, WI, WA	$	information on website
	2B	Consider increasing frequency and geographic extent of hazardous waste drop-offs.		X			X	2016 - ongoing	OC, WC	$$$	holding a second drop-off day
	3	**Prevent and enforce regulations on illegal dumps**									
	3A	Continue field checking sites for illegal dumping.	X				X	2015 - ongoing	WC	$	WI and Manager identify sites
	3B	Encourage better enforcement of illegal dumping and littering regulations.					X	2015 - ongoing	DEC, Munis, WC	$	work with DEC
	3C	Establish trail cameras at illegal dump sites with repeated dumping.					X	2015 ongoing	DEC, WC	$$	purchase and install trail camera
	4	**Prevent water contamination from junk/salvage yards and inactive landfills**									
	4A	Evaluate municipal codes for weaknesses in addressing junk/salvage yards and junk storage in residential areas.	X				X	2016	WC, P, Munis	$	complete inventory municipal codes
	4B	Assist in junk/salvage yard enforcement through watershed field assessments.	X				X	2017	WC, P, Munis	$	WI and Manager assist CEOs

APPENDIX 2.
INTERMUNICIPAL AGREEMENT

REAUTHORIZATION

INTERMUNICIPAL AGREEMENT

REGARDING

CANANDAIGUA LAKE WATERSHED COUNCIL

THIS AGREEMENT, effective as of the 1st day of January 2015 by and between the Towns of Bristol, Canandaigua, Gorham, Hopewell, Italy, Middlesex, Naples, Potter, South Bristol; the Villages of Naples, Newark, Palmyra, Rushville; and the City of Canandaigua to continue the Canandaigua Lake Watershed Council, adopt the Update of the Canandaigua Lake Watershed Management Plan and continue to fund the Watershed Council to implement the Watershed Protection Program.

WITNESSETH THAT:

WHEREAS, pursuant to Article 5-G Section 119-o and 239-n of the General Municipal Law of the State of New York, Section 64 of Town Law, and Article 4 of Village Law, municipalities have the authority to enter into contracts and intermunicipal agreements necessary to carry out their respective functions for the benefit of the municipality; and

WHEREAS, the municipalities identified in this agreement desire to continue the cooperative agreement originally made on December 10th, 1999. This agreement created the Canandaigua Lake Watershed Council along with adopting and funding the original Canandaigua Lake Watershed Management Plan. This agreement was reauthorized in 2004 and 2010; and

WHEREAS, Canandaigua Lake and its surrounding 174 square mile watershed provides numerous benefits to the region including drinking water for approximately 70,000 people, varied recreational opportunities, scenic beauty, Natural Capital and ecological significance; and

WHEREAS, the goal of the Canandaigua Lake Watershed Council is to protect the lifeblood of this region-Canandaigua Lake and its surrounding watershed by maintaining and enhancing the high water quality of this watershed through the continued implementation of the comprehensive watershed protection program; and

WHEREAS, the parties to this agreement, desire to continue the Canandaigua Lake Watershed Council, hereinafter referred to as the Watershed Council, that will provide the necessary leadership, coordination and commitment to successfully administer and oversee the implementation of the Watershed Protection Program and the 2014 Update to the Canandaigua Lake Watershed Management Plan as approved by the Watershed Council; and

WHEREAS, The participating municipalities will work together cooperatively in the decision-making process and share the leadership and ownership in implementing the Watershed Program as outlined in the Watershed Council bylaws. The Watershed Council utilizes five protection themes of research, education, restoration, open space protection and regulation to provide comprehensive level protection.

NOW, THEREFORE, in consideration of the terms and conditions herein contained, the parties to this agreement do hereby agree as follows:

1.The Canandaigua Lake Watershed Council is hereby continued as the official Intermunicipal entity created by the fourteen municipalities in 1999 to implement the Watershed Protection Program.

2.This intermunicipal agreement is voluntary and will not be construed so as to interfere with or diminish any municipal powers, authority, or regulatory authority of any of the participating municipalities.

3.The Comprehensive Update of the Canandaigua Lake Watershed Management Plan is hereby adopted by each respective municipality. The Watershed Council provided the coordinated SEQR review of the Plan update and has issued a Negative Declaration documenting that no substantial negative impacts will occur as the result of the adoption of the Updated Plan.

4.The Watershed Council will approve a budget each year and the participating municipalities will provide the necessary funding by March 31st of each year based on the fair share funding formula adopted in 1999 and updated each year. The Watershed Council will approve the updates to the fair share funding formula for each year and will send a copy of the funding formula and calculations to each of the municipalities by January 15th of each year.

5.The participating municipalities shall appoint one publicly elected representative (i.e. Municipal supervisor, or municipal board member and an alternate representative (another publicly elected representative) to the Watershed Council. In the case of the two non-watershed water purveying municipalities (Newark and Palmyra), they can send their chief water treatment plant operator or water authority representative as an alternative to the publicly elected representative.

6.The term of this agreement shall commence January1st, 2015 and terminate December 31st, 2019. This Agreement shall be automatically renewed for four additional five-year terms, unless either party notifies the other party of its intent not to renew within 90 days of the expiration of any term or renewal term.

7.This agreement authorizes the Watershed Council to enter into contracts within the limits of, and subject to, the appropriations provided by the participating municipalities and other funding sources.

8.The Canandaigua Lake Watershed Council will act as the official Stormwater Coalition for any of the municipalities in the watershed that have to comply with the Federally and State mandated Municipal Separate Storm Sewer System regulations and will provide assistance to these municipalities to meet and exceed the Clean Water Act derived regulatory requirements.

9.The Watershed Council is required to carry insurance with a minimum aggregate of $2 million in general liability coverage, $1 million in Hired and Non-owned auto coverage, $1 million umbrella liability and $1 million in Public Officials coverage. All such insurance policies shall list each of the participating municipalities as additional insureds.

10.The Watershed Council shall indemnify and hold harmless the fourteen municipalities named in this agreement, its officers, employees and agents from and against any and all liability, damage, claims, demands, costs, judgments, fees, attorneys' fees or loss arising directly or indirectly out of the negligent acts or omissions hereunder by the Watershed Council, Watershed Program Manager or third parties under the direction or control of the Watershed Council or Watershed Program Manager and to provide defense for and defend, at its sole expense, any and all claims, demands or causes of action directly or indirectly arising out of the acts or omissions referred to in this paragraph and to bear all other costs and expenses related thereto.

11.The parties to this agreement desire to continue to provide for the day to day coordination of the Watershed Program through a Canandaigua Lake Watershed Program Manager, hereinafter referred to as the Watershed Program Manager.

12.The Watershed Council will provide direct oversight and control of the Watershed Program Manager. The Watershed Program Manager duties will include but not limited to: water quality research on the lake and streams, technical assistance to the municipalities on water quality and flood control projects, assist residents on water quality issues, investigate sources of pollution and develop management strategies to solve those sources of pollution in partnership with other relevant agencies, grant application assistance to the Watershed Council and member municipalities, technical reports, educational outreach, MS4 assistance, provide regulatory assistance to the municipalities including site inspections and plan reviews and act as the official spokesperson for the watershed program.

13.The Watershed Council will have ultimate authority over all municipal contributions made to the Watershed Council.

14.The City of Canandaigua will provide the necessary facilities, accounting, worker's compensation insurance and support for the Watershed Manager to carry out the implementation of the Plan as agreed to in the Agreement For Services between the Watershed Council and City of Canandaigua. The Watershed Council will abide by the NYS Human Rights Law with respect to hiring practices.

15.That any party to this agreement may terminate its participation within the Council at any time but must do so upon giving written notice to all other participating municipalities that such party will terminate its participation in the Council, the reasons for the termination and the effective date of such termination, such written notices to be given at least 30 days prior to the date such termination shall take effect. No refunds will be provided to any party that terminates its participation for that year. Withdrawal from the agreement by one party shall not operate to terminate the agreement, which shall continue in full force and effect with respect to the other parties.

16.If any term or provision of this agreement or the application thereof shall, to any extent, be invalidated or unenforceable, the remainder of this agreement or the application of such term or provision, other than those to which it is held invalid or unenforceable, shall be unaffected thereby, and each term and provision of the agreement shall be valid and enforceable to the fullest extent permitted by law.

17.If the Council should cease to exist in accordance with the bylaws, the funds still available will be returned to the parties to this agreement under the same formula as originally gained.

IN WITNESS WHEREOF, the following parties through their Chief Elected Officials have executed this agreement.

Municipal Signatories

_____
Supervisor Robert Green
Town of Bristol

_____
Supervisor Pamela Helming
Town of Canandaigua

_____
Supervisor Fred Lightfoote
Town of Gorham

_____
Supervisor Margaret Hilton
Town of Hopewell

_____
Supervisor Margaret Dunn
Town of Italy

_____
Supervisor Robert Multer
Town of Middlesex

_____
Supervisor John Cowley
Town of Naples

_____
Supervisor Leonard Lisenbee
Town of Potter

_____
Supervisor Barbara Welch
Town of South Bristol

_____
Mayor Brian Schenk
Village of Naples

_____
Mayor Peter Blandino
Village of Newark

_____
Mayor Chris Piccola
Village of Palmyra

_____
Mayor Jon Bagley
Village of Rushville

_____
Mayor Ellen Polimeni
City of Canandaigua

2015 Watershed Council
Fair Share Formula

Breakdown of Criteria used in the Formula

Municipality	Gal. Use	Shore line	% of w'shed	Pop. Den.	Watershed Assess	Tourism $
Measurement	millions	miles	%	sq- mile	millions-$	Range
Cdga City	1,315	1.5	1.4	2449.7	368.4	7
V. Newark	1,047					
T. Canandaigua		11.5	16.0	134.6	709.4	4
Gorham	159	7	17.5	73.4	398.2	3
South Bristol	33	7.4	9.9	41.5	340.8	4
V. Palmyra	452					
Middlesex		7.5	18.4	44.2	157.0	
Naples			19.0	32.4	72.7	3
V. Naples	70		0.8	1128.8	51.3	3
Rushville	40		0.3	969.1	21.7	
Italy		0.4	9.5	27.4	37.4	
Hopewell			1.8	94.3	28.7	1
Potter			3.3	49.8	3.7	
Bristol			0.3	59.0	2.4	

Two of the criteria change each year: gallons used and Watershed assessed value.

Both City of Canandaigua and Newark used approx 100million gallons less in 2013

Approved Formula

Municipality	Gal. Use	Shore line	% of w'shed	Pop Den	Watershed Assess	Tourism $	Total Score	% of Total	Watershed Council 2015 Annual Municipal Cost	2014 Comparison	2000 Comparison
Cdga City	72.4	1.3	0.7	10.5	31.6	10.0	126.6	25.3%	$ 24,318	$ 23,853	$ 24,028
V. Newark	57.7	0.0	0.0	0.0	0.0	0.0	57.7	11.5%	$ 11,077	$ 10,978	$ 14,827
T. Canandaigua	0.0	10.0	8.4	0.6	60.9	5.7	85.6	17.1%	$ 16,448	$ 15,581	$ 11,582
Gorham	8.8	6.1	9.2	0.3	34.2	4.3	62.8	12.6%	$ 12,073	$ 11,318	$ 9,306
South Bristol	1.8	6.4	5.2	0.2	29.3	5.7	48.6	9.7%	$ 9,338	$ 8,881	$ 6,899
V. Palmyra	24.9	0.0	0.0	0.0	0.0	0.0	24.9	5.0%	$ 4,782	$ 4,529	$ 5,004
Middlesex	0.0	6.5	9.7	0.2	13.5	0.0	29.9	6.0%	$ 5,739	$ 5,383	$ 4,676
Naples	0.0	0.0	10.0	0.1	6.2	4.3	20.7	4.1%	$ 3,969	$ 3,740	$ 3,959
V. Naples	3.9	0.0	0.4	4.8	4.4	4.3	17.8	3.6%	$ 3,420	$ 3,213	$ 3,670
Rushville	2.2	0.0	0.2	4.2	1.9	0.0	8.4	1.7%	$ 1,609	$ 1,488	$ 1,689
Italy	0.0	0.3	5.0	0.1	3.2	0.0	8.7	1.7%	$ 1,666	$ 1,562	$ 1,391
Hopewell	0.0	0.0	0.9	0.4	2.5	1.4	5.2	1.0%	$ 1,007	$ 954	$ 915
Potter	0.0	0.0	1.7	0.2	0.3	0.0	2.3	0.5%	$ 436	$ 410	$ 440
Bristol	0.0	0.0	0.2	0.3	0.2	0.0	0.6	0.1%	$ 119	$ 110	$ 110
							499.8	100.0%	$ 96,000	$ 92,000	$ 88,500
Weights	7	1	1	1	3	1		96,000.00			