

Chapter 7. Public Perceptions & Education



7. Public Perceptions & Education

7.1 Public Perceptions – Watershed Issues

Over the past three years there has been several planned opportunities for individuals from the public to voice their interests and concerns on issues effecting the Cayuga Lake Watershed. This chapter summarizes public input on issues important to them within the watershed. Although the composition of all the public input sessions were different, all included individuals who live, work, study, or recreate in the watershed. There are noticeable similarities in the issues, concerns, interests and visions that people have for the watershed.

7.1.1 1997 Finger Lakes-Lake Ontario Watershed Protection Alliance (FL-LOWPA) Conference

NYS Department of Environmental Conservation staff facilitated a session at the Finger Lakes - Lake Ontario Water Planning Alliance (FL-LOWPA) Conference on Visioning for the Future of Cayuga Lake. Developing a vision meant to take a long-term, seventh generation approach to looking at the watershed. The objective was to get people to share their view of what the watershed should be in the future; the overall goal or vision. The process used to develop this vision included: an overview of the Ecosystem Approach to Watershed Management; individual time to brainstorm elements of the vision; round robin responses from the participants; an opportunity to clarify, combine and evaluate responses, developing the vision (vision statement); determining next steps; and a process check.

Since time was limited and there were over fifty people participating, the process ended at the “clarify, combine and evaluate responses” step, and no vision statement was developed. The combined, clarified categories for developing the vision were completed and are as follows:

- land use planning
- quality of water/natural resources
- fisheries/habitat
- environmentally aware and responsible public
- quality of life
- effective, inclusive community decision-making
- quantity of water
- economic revitalization and sustainability
- cultural diversity

All the above categories were to be included in some manner in a future vision statement for the Cayuga Lake Watershed.

7.1.2 Neighbors Around Cayuga Lake Watershed Mini-Conference I

Building on the information and the process used at the FL-LOWPA Conference, further visioning was done at the first Neighbors Around Cayuga Lake Watershed Mini-conference held at Cayuga Nature Center in 1997. This was a gathering of over 100 individuals who had interests in the Cayuga Lake Watershed either as property owners, businesses, agencies and organizations, and/or other interested parties.

Groups worked through a visioning process that resulted in several proposed vision statements and at least, components of a vision statement. Many of the mini-conference attendees had not participated in the visioning session at the FL-LOWPA conference and required time to discuss the future of the watershed. Proposed draft vision statements and components for visions included:

“Create a long-term dynamic vision through a continuing process of public involvement that guides
-land use planning
-public education and involvement
-environmental management decisions
-economic development

on a cooperative, intermunicipal basis throughout the watershed; in order to protect and enhance the natural, social, cultural and economic environments of the Cayuga Lake Watershed on a sustainable basis.”

“We seek:

A lake as aesthetic resource for mental and spiritual health; cohesive and consistent land use planning and management; individually and politically healthy watershed ecosystem; public awareness education; access to lake; awareness of impact of watershed on lake ecosystem; environmentally sensitive commercial and agricultural operations.”

Other Vision components

- Water quality standards
- Safe drinking water
- Educated public
- Protected “viewsheds”
- Waste water management
- Positive tax incentives to preserve water quality
- Tourism and other economic development
- Organizing effort to deal with lake issues (education, communication, and collaboration)
- Support for multiple uses of lake (supply, recreation, access, agriculture, etc.)
- Public awareness and involvement
- Zero impact from new development on water quality
- Maintain and improve the quality of life in the watershed (economic, environmental, social)

7.1.3 Cayuga Lake Watershed Network Stakeholders Survey

During the fall of 1998, a phone and written survey was conducted at the request of the Cayuga Lake Watershed Network and funded by FL-LOWPA, to determine what issues were of importance to a variety of stake holders in the Cayuga Lake watershed. The survey was undertaken, in order to discover priorities and concerns of the various constituencies and geographic areas within the watershed. Approximately 300 individuals, in a weighted sample answered questions from the perspective of the entity they were representing and then as individuals. The most relevant issues concerning the watershed as identified by watershed stakeholders in **rank** order were:

Responding as Representatives

- 1) Water quality
- 2) Public Health Issues
- 3) Land Use and Development
- 4) Tourism
- 5) Preservation of Open Space
- 6) Invasive Plants and animals
- 7) Economic Development
- 8) Access to the lake
- 9) Lake water levels
- 10) Motorized recreational vehicles
- 11) Recreational activities

Responding as Individuals

- 1) Water quality
- 2) Public Health Issues
- 3) Preservation of Open Space
- 4) Land use and development
- 5) Invasive plants and animals
- 6) Economic development
- 7) Tourism
- 8) Access to the lake
- 9) Lake water levels
- 10) Motorized recreational vehicles
- 11) Recreational activities

The entire Cayuga Lake Watershed Network Survey of Cayuga Lake Watershed Stakeholders is included in Appendix H.

7.1.4 Neighbors Around Cayuga Lake Mini-Conference II

As part of the Neighbors Around Cayuga Lake Mini-Conference II, held in November 1998, Cayuga Lake Watershed residents participated in a session to provide input on the Cayuga Lake Watershed Management Plan and planning process. Participants were provided with information from a panel representing the Town of Ledyard, Central New York Regional Planning and Development Board, Genesee/Finger Lakes Regional Planning Council, and the Cayuga Lakes Watershed Network about the Cayuga Lake Watershed Management Plan project, timeline, process, and partners. Written materials about the management plan and process were also provided to participants.

In small groups, participants were asked to individually identify and write down any (and all) issues, concerns, interests and passions they had regarding the Cayuga Lake Watershed. They were then asked to identify their top three issues. Participants shared their issues/interests within their small groups until all issues were recorded. Only unique issues were recorded and all issues, concerns, interests and passions were recorded even if not identified as a top three on a persons list (the overall group list was exhaustive of all individual lists in group). Since only unique issues were recorded, the subtle differences of wording or meaning were not necessarily recorded. Forty-three watershed residents provided input. Categories for responses were created post facto from all group lists to assist in organizing responses and clarifying narrative.

The issues were not prioritized or ranked in any manner for each person had their own concerns and interests, and the object of this session was to help identify issues in the watershed so they could be addressed in the Cayuga Lake Watershed Characterization and ultimately in the Management Plan. The public has many other opportunities throughout the process to prioritize issues within the watershed; at future public participation sessions, when reviewing drafts of the Characterization and Plan, and locally within their municipality.

Issues identified by individuals at the Neighbors Around Cayuga Lake Watershed public participation session as important to them:

Land Use Issues

A range of issues of concern surfaced in the area of land use including urban and rural sprawl, unplanned development, changes in the natural environment (specifically diminishing forests and wetlands), decrease in farm land, need for changes in land use planning, and others. People suggested that there needs to be changes in the way planning occurs for land use in the future. Specifically, of concern was: the need for model land use planning; land use planning to protect the environment and the rural communities; small municipalities needing help in planning; planning for open space, natural areas, and habitat protection; concern that there be smart land use and growth control within the watershed in the future; and that planning be based on science.

Water Management Issues

A wide variety of issues focused on the actual management of water within the watershed. These included everything from various water permitting processes and agencies, to methods used to manage stormwater runoff. Specific named issues included: concerns about water permitting processes looking individually (case by case) and not cumulatively; the need for taking into account total daily maximums; there needs to be a watershed view for permitting; urban and rural stormwater management; use of traditional engineering methods instead of other methods for water management; the limitation of the lake to dilute pollutants; issues over regulations that affect business and individual property owners within the watershed; shoreline and riparian corridor protection; implementation of best management practices for water management; and watershed-wide regulation and enforcement.

Erosion and Siltation

Participants had concerns about erosion control in the Cayuga Lake tributaries. Siltation, especially at the South end of Cayuga Lake was a big issue. Erosion associated with stormwater runoff and the resulting sedimentation were identified as concerns in the watershed. How issues of erosion, siltation, sedimentation and stormwater runoff were addressed was also of concern to the public. Using traditional engineering methods only and not looking holistically at these issues was much discussed. The need for other methods to control erosion was of interest to participants.

7.1.5 Intermunicipal Organization Water Quality Issues Identification

As part of the Cayuga Lake Watershed Management Plan process, the Intermunicipal Organization Water Quality Issues Identification Session was held in March 1999. The session was split into two parts: visioning and specific issues, impairments and sources of data.

7.1.5.1 Part 1: Visioning

Participants were asked imagine that they return to the Cayuga Lake Watershed after an absence of 20 years. The watershed management plan is in place. Each person was asked to name three specific attributes of the lake or

watershed (water quality related) that they would like to see. Responses were clustered into broad categories (human uses, lake ecology, control of inputs, and tools).

Each respondent was asked to rank the issues as Priority 1, 2 or 3. The data summary includes a total score for each comment based on the priorities. Priority 1 was assigned 3 points, Priority 2, 2 points and Priority 3, 1 point. These results are included in the “weighted rank” column next to each specific comment.

From the rankings, it is clear that protection and improvement of the lake as a recreational resource (swimming and aesthetic) and a source of high quality drinking water are the highest priorities. Public access to the lake is also a high priority.

7.1.5.2 Part 2: Specific Issues, Impairments, and Sources of Data

As the second exercise, each of the four tables (southern lake and watershed, mid-lake and watershed, northern lake and watershed, and lake-wide, watershed-wide) focused on identifying specific water quality issues. Guided by a facilitator at each table, the groups created a matrix of sources of pollution, type of pollutant, water quality impacts, uses affected, and any data sources for documentation.

Whenever possible, the group identified the specific location in the lake or watershed where the pollution source was an issue. Maps of the specific lake and watershed segments were marked with numbered dots. The numbers correspond to the numbered responses presented in the tables.

The following series of tables records the specific responses provided during the meeting.

Table 7.1.5.1 Part 1: Visioning

Category	Subcategory	Weighted Rank	Comment
Human uses: Recreational (total 63 points)	Swimming 17	11	Swimming at Stewart park in Ithaca
		1	Clean safe swimming at the south end of the lake
		2	Swimming everywhere in Cayuga Lake
		3	Swimming at Stewart Park and other public beaches
	Recreation 4	2	More recreational use available in watershed
		2	Health condition of lake for recreation
	Access 19	15	Improved public access
		2	Development of access with sensitivity to fragile systems
		2	Unrestricted access for all recreational needs (i.e. access to lake and minimal growth of weeds)
	Aesthetic 12	3	Reduced algae blooms
		3	Much less weed growth for all recreational uses
		2	Increased post-storm transparency
		2	Preservation of aesthetics/scenic beauty
		2	Aesthetic beauty of lake preserved, including tranquility
	Noise 5	2	Less noise from watercraft
		3	Noise pollution from jet skis for example
Fishing 6	3	Excellent fishing opportunities	
	1	Pan fishing with public access (for children etc)	
	2	Fish at Fall Creek	
Human uses: Water supply (total 23 points)	Drinking water quality 23	19	High quality drinking water source
		2	Less sediment in lake for municipal water use
		2	Protection of public drinking water sources
Human Uses: Economics (total 8 points)	Economics 7	3	Sustainable economics
		2	Economic development: develop a plan to help use the lake to improve the economy
		2	Quality of life among agricultural and urban sector
	Land ownership 1	1	Native Americans don't get control of 64000 acres around north end of Cayuga Lake

Part I: Visioning

Category	Subcategory	Weighted Rank	Comment
Lake Ecology <i>(total 50 points)</i>	Water Quality (not specific to any use)	5	Lake quality maintained as it is now, no degradation
		7	Improved water quality
		1	Find no pollution in Cayuga Lake basin
		2	Improved protection of ground and surface water
		3	Lake in near pristine condition
	Natural resources	3	Natural resource for all
		3	Clean water providing healthy watershed dependent ecosystems and good human drinking water
		4	The ecosystem within the lake is healthy
		2	Cleaner environment
		1	Healthy lake for flora and fauna
		3	All tributaries healthy
		1	Beaver control
	Control of weeds	3	Reduce/eliminate the seaweed in the lake
		2	Reduced algae and other weeds in the lake and good fishing
		2	Clean water and fewer weeds
	Exotic species	2	Elimination of exotic species such as milfoil and control of vegetation in general
		1	No new non-native species and a noticeable reduction in previously established ones
	Fish community	1	Re-appearance of the sturgeon in deep water
		1	A healthy fishery and ecosystem
		2	Salmon fishing in Salmon Creek
1		Fish spawning in Fall Creek and Cayuga Inlet	
Tools for Preservation <i>(total 12 points)</i>	Open space and scenic vistas	5	Preservation of open space (agriculture and public lands)
		3	Maintain scenic vistas via land use regulation, planning
		1	Aesthetics of more open areas for the general public
		3	Significant tracts of open space in the full variety of habitats are preserved, both in the watershed and along the majority of the lakeshore.

Part I: Visioning

Category	Subcategory	Weighted Rank	Comment	
Management and regulatory tools <i>(total 17 points)</i>	Water level and flooding 7	1	Flood control (water level management) to help reduce erosion	
		1	Manage lake levels appropriately for recreational use	
		2	Flood-prone areas are under better control	
		3	Water supply systems improved to allow better water level management	
	Regulation of shoreline construction 1	1	No further construction on the lake perimeter and some buildings gone.	
	Implementation funding 1	1	\$ to implement plan	
	Land use planning 8	3	Controls on development	
		1	Better land management	
		2	Balanced management plan	
		1	Zoning and health laws enforced, septic systems etc.	
		1	Use of best management practices and land use planning that considers and protects the environment long-term	
	Control of Inputs <i>(total 28 points)</i>	Wastewater management 11	3	Properly running wastewater treatment plants
			2	Programs for residual sewage
			2	Municipal water system and sewer around the lake
1			Control of wastewater discharges from public or private sources (no pathogens)	
2			No lake-related industry potentially damaging to the lake	
1			Regional wastewater treatment programs	
Agricultural 5		3	Agriculture thriving in the southern basin, with reduced sediment and nutrients	
		1	Progress for agricultural runoff	
		1	Preservation of agricultural economy with controlled erosion and sedimentation	
Erosion and sedimentation 11		3	Less sedimentation pollution of south end	
		2	Control erosion	
		3	Beach areas no longer eroded	
		1	Reduced sedimentation	
		2	Sediment control from runoff	
Nonpoint sources 1		1	Lawn care, fertilizer, herbicides	

Table 7.1.5.2 Part 2: Specific Water Quality Issues
Group 1: Northern Basin, Northern Watershed

SOURCE	TYPE	ISSUE	USE	DATA
(1) Nonpoint source of TCE	Volatile organic compound	Drinking water	Drinking water	County health and DEC
(2) Water level drawdown	Water level management	Biotic habitat	Habitat alteration	DEC, DOT
(3) Inadequately treated domestic sewage	Nutrients, bacteria, oxygen demand	Smell and bacteria	Aesthetic Water supply	Bridgeport
(4) Canoga Creek area	Sediment	Turbidity	Water supply	Treatment plant reports
(5) Agriculture and residential runoff	Nutrients in water	Weeds, water clarity	Boating, drinking water	
(6) Exotic species (rudd and zebra mussel)	Transplanting	Water quality and filtration of microorganisms	Food chain	Dave McNeil at Brockport
(7) Septic systems	Nutrients, bacteria, oxygen demand	Water quality, algae, aquatic vegetation	Navigation	Ray Oglesby
(8) Marinas	Organic chemicals gas/oil etc.	Toxic substances	Water quality drinking swimming	Visual observation
(9) Stormwater runoff	Road-side ditches	Turbidity	Water quality drinking swimming	Visual observation

Part 2: Specific Water Quality Issues, Group 2: Mid-Lake, Mid-Watershed

SOURCE	TYPE	ISSUE	USE	DATA
(1) Stewart Park	Runoff from Fall Creek	Water is filthy and polluted	Swimming	
(2) Sewage treatment plant	Effluent running to lake	Affects aquatic life in streams	Aquatic life	DEC
(3) North end	Nutrients and possibly pathogens	Water fowl	Drinking and recreation	None
(4) Hog farms	Nutrients (nitrogen), odors	Nutrient loading and aquifer	Recreation and drinking water	None
(5) Building marina	Scenic, safety	More cars, sewage	Neighboring properties, cove	
(6) Deans Cove Stream	Sediment	Sediment loading	Recreation and drinking	
(7) Milfoil	Introduction of exotic species	Recreational use, disruption of ecosystem	Swimming, boating	
(8) Zebra mussels	Introduction of exotic species	Drinking water intakes	Drinking water, recreation	
(9) Lamprey eels	Depletion of fish supply	Fish community	Fishing, recreation	

Part 2: Specific Water Quality Issues, Group 3: Southern Lake, Southern Watershed

SOURCE	TYPE	ISSUE	USE	DATA
(1) Rapid storm runoff	Sediments and nutrients	Lack of transparency, lack of infiltration, increased sedimentation, aesthetics (smelly)	Swimming Boating Drinking Fishing	USGS Cornell LSC Milliken
(2) Wastewater treatment plants	Biochemical oxygen demand. Phosphorus and nitrogen, pathogens	Algae blooms Transparency Weed growth	Fishing Recreation Drinking water	
(3) Oil spills (Jacksonville leak, Fall Creek and Inlet spills)	Petroleum products	Ground and surface water quality, ecosystem degradation, fish productivity, general ecosystem health	Fishing Recreation Drinking water	
(4) Private septic systems	Bacteria Nutrients Chemicals Pathogens	Groundwater pollution	Drinking water	
(5) Abandoned landfills (Trumansburg area, Cornell low-level radioactive, etc.)	Heavy metals, petroleum	Surface water and groundwater (localized in watershed), wildlife	Drinking water General water quality, Environmental health	
(6) Lawn and garden overuse of pesticides and fertilizers	Pesticides and fertilizers	Water quality Turbidity Wildlife	Drinking water Recreation Wildlife	

Part 2: Specific Water Quality Issues, Group 4: Lake-Wide, Watershed-Wide

SOURCE	TYPE	ISSUE	USE	DATA
(1) Sediment streams and agricultural runoff (south end)	Nutrients Pathogens Pesticides Sediment./fill-in	Degraded water quality Clarity decrease	Recreational use Human health Drinking water Fishing	USGS Health depts.
(2) Treatment plant	Phosphorus Nitrogen Metals Coliform Giardia and Cryptosporidia Viruses Pathogens	Drinking water source Recreational use Metals in fish	Drinking Swimming Recreational use	Special project (Coliform data not that great) Treatment plant (age and efficiency)
(3) Lake level	Erosion and sedimentation Inundated septic systems Water supply systems Salt water Concentrate contaminants Mosquitoes	Increased turbidity Affect water supply issues (including algae due to septic) Recreational use Access to homes	Recreation Navigation Drinking water Fish population	Canal Corp Citizens around the lake
(4) Camps in floodway with unregulated septic systems	Pathogens Nitrogen Phosphorus Coliform	Similar to wastewater treatment plants	Swimming Boating Drinking water Public health Insects	Cayuga County DOH Other health departments? Smaller political subdivisions (code enforcement people?)
(5) Industrial use of the lake	Thermal Ionic (chlorides)	Temp. degradation, biosides, phosphorus transfer	Swimming, Fishing Drinking	NSDEC, SPDES permits, reports.
(6) Commercial and residential development around the lake	Runoff Impervious surfaces Infrastructure (bring in water and sewer) Erosion	Degraded water quality in lake Loss of natural infiltration Loss of open space	Open space Lack of public access Increased noise pollution General water quality Decreased agriculture	Building permits Zoning boards Home Builders Associations Remote sensing Aerial photos (historical)

7.2 Education Activities

As part of, or in association with the Cayuga Lake Watershed Management Plan the following education activities have taken place:

7.2.1 Educational Display for Water Quality Issues

Three educational displays was designed and constructed to increase awareness of water quality issues in the Cayuga Lake Watershed. A display titled “Drains to the Lake” brought to light the various aspects of non-point source pollution, erosion, stormwater management, and others watershed issues were represented. The display also shows the Cayuga Lake watershed boundaries and gives interesting facts about the watershed. The display can be used throughout the watershed at businesses, banks, municipal offices, fairs, festivals and other events to educate and inform the public.

7.2.2 Cayuga Lake Watershed Fact Sheet

The Cayuga Lake Watershed Fact Sheet includes an overview of lake facts, economic resources, natural resources, cultural/historical resources, public and private drinking water, geographic/political, and pollution and impairments in the watershed (see Appendix D).

7.2.3 Local Government Workshops

The Genesee/Finger Lakes Region Planning & Zoning Workshop is held twice a year in May and November. Training sessions are held throughout the day on land use and environmental issues (see Appendix D). Municipal priority issues in the Cayuga Lake Watershed have been addressed through this Workshop since 1998.

7.2.4 Cayuga Lake Watershed Intermunicipal Organization/Network Bus Tour

As part of the Cayuga Lake Watershed Management Plan process and educational bus tour of the watershed was held in October 1999. Representatives of the Intermunicipal Organization and Cayuga Lake Watershed Network were part of the following agenda:

Lake Source Cooling – Stewart Park, Ithaca - Bob Bland, Cornell University
Ithaca Waste Water Treatment Plant – Ithaca, New York - Jose Lozano, City of Ithaca
Silt Dam – Roxy Johnson, City of Ithaca
Cayuga Lake Watershed Management Plan – David Zorn, G/FLRPC
Lake Sampling in Cayuga Lake – Joe Makarewicz, SUNY Brockport
Manure Handling, Patterson Farm, Sandy Huey, Cayuga County SWCD
Cayuga Lake Pesticide Research, Dave Eckhardt, USGS
Hydrology of the Cayuga Lake Watershed – Mud Lock - Bill Kappel, USGS
West side of Cayuga Lake

7.2.5 Cayuga Lake Watershed Management Plan Internet Web Site

The Cayuga Lake Watershed Management Plan Internet Web Site was developed at the beginning of the project in 1998. It is maintained on a regular basis and is now at www.cayugawatershed.org

7.2.6 Cayuga Lake Watershed Management Plan Brochure

The Cayuga Lake Watershed Management Plan brochure (Appendix D) was developed in 1998 to educate people about the Cayuga Lake Watershed Management Plan project.

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