

Lake Erie Watershed Municipal Survey Report 2013



By the Lake Erie Watershed Protection Alliance

January 2014

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The survey results support other state and regional priorities. Below are some examples:

1. NYS Department of Environmental Conservation's *New York's Great Lakes Basin: Action Agenda* has priority goals to clean up pollution sources & restore beneficial uses, conserve natural resources, and promote resilient communities & sustainable development.
2. The Regional Economic Development Council's *A Strategy for Prosperity in Western New York* targets industry sectors such as agriculture and tourism while recognizing the need for "Smart Growth" and protecting our cultural and natural assets.
3. The NYSERDA Cleaner Greener Communities Program's *Western New York Regional Sustainability Plan* recognizes the important role that water resources play in the local economy and specifically mentions the need for a watershed management plan.
4. *Erie-Niagara Framework for Regional Growth* mentions the need for development along existing corridors and centers while conserving natural systems.
5. The *Initiatives for a Smart Economy* specifically calls out the need for investing in infrastructure and reducing harmful bacteria contamination.



Executive Summary

The Lake Erie Watershed Protection Alliance (LEWPA) conducted a survey of municipalities within the New York State Lake Erie watershed, which are in Cattaraugus, Chautauqua, and Erie counties. The results of this survey will be used to prioritize resources and pursue funding opportunities for implementation of projects.

The LEWPA Regional Priorities for 2013 are as follows:

1. *Economic Development*
2. *Infrastructure Planning/Development/Maintenance*
3. *Maintenance of Bridges and Culverts*
4. *Maintenance of Water Quality Standards*
5. *Flood Prevention/Mitigation* tied with *Sewage Discharge to Lake* tied with *Tourism Enhancement*
6. *Natural Resource Protection*
7. *Regional and Long-term Planning*
8. *Pathogens and Viruses from Septic Waste*
9. *Debris Build-up/Log Jams* tied with *Review & Enforcement of Permits/Regulations* tied with *Stream Bank Erosion*
10. *Heavy Metals, Organics, Petroleum, Chemicals* tied with *Stormwater Runoff*

These priorities mirror those of various regional agencies. The top priority of *Economic Development* supports the work of the Regional Economic Development Council and their "Strategy for Prosperity in Western New York." The second priority of *Infrastructure Planning/Development/Maintenance* is a prime example of the need for "Smart Growth," a concept that is illustrated in various regional plans and documents. By taking these priorities together we can enable the region to grow in a responsible manner while protecting and enhancing the natural assets of our watershed. This will allow Western New York to embark on a "Blue Economy" where the region will benefit both economically and environmentally by investing resources in protecting our water resources.

The Lake Erie Watershed

A watershed is the area of land where all of the water that is under it or drains off of it goes into a specific body of water. Rain, snowmelt, and even excess water from sprinkling lawns will flow downhill to the nearest stream or creek. In many cases, roadside ditches and storm drains will pick up this flow and empty it directly into waterways without treatment. These waterways empty into larger rivers and eventually to Lake Erie. Along the way, this water may pick up pollutants such as automobile and road chemicals, bacteria from pet waste, sediment, pesticides and fertilizers, etc. This pollution can harm fish and wildlife that depend upon fresh water. It also impacts human activities such as drinking water and bathing beaches. That is why it is important to realize that activities throughout the watershed can impact water quality, even miles away in Lake Erie. We all need to work together to address these issues.

The Lake Erie watershed of New York State includes portions of Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, and Wyoming counties. See Figure 1 below for a map depicting the watershed boundaries as defined by the United States Geological Survey.

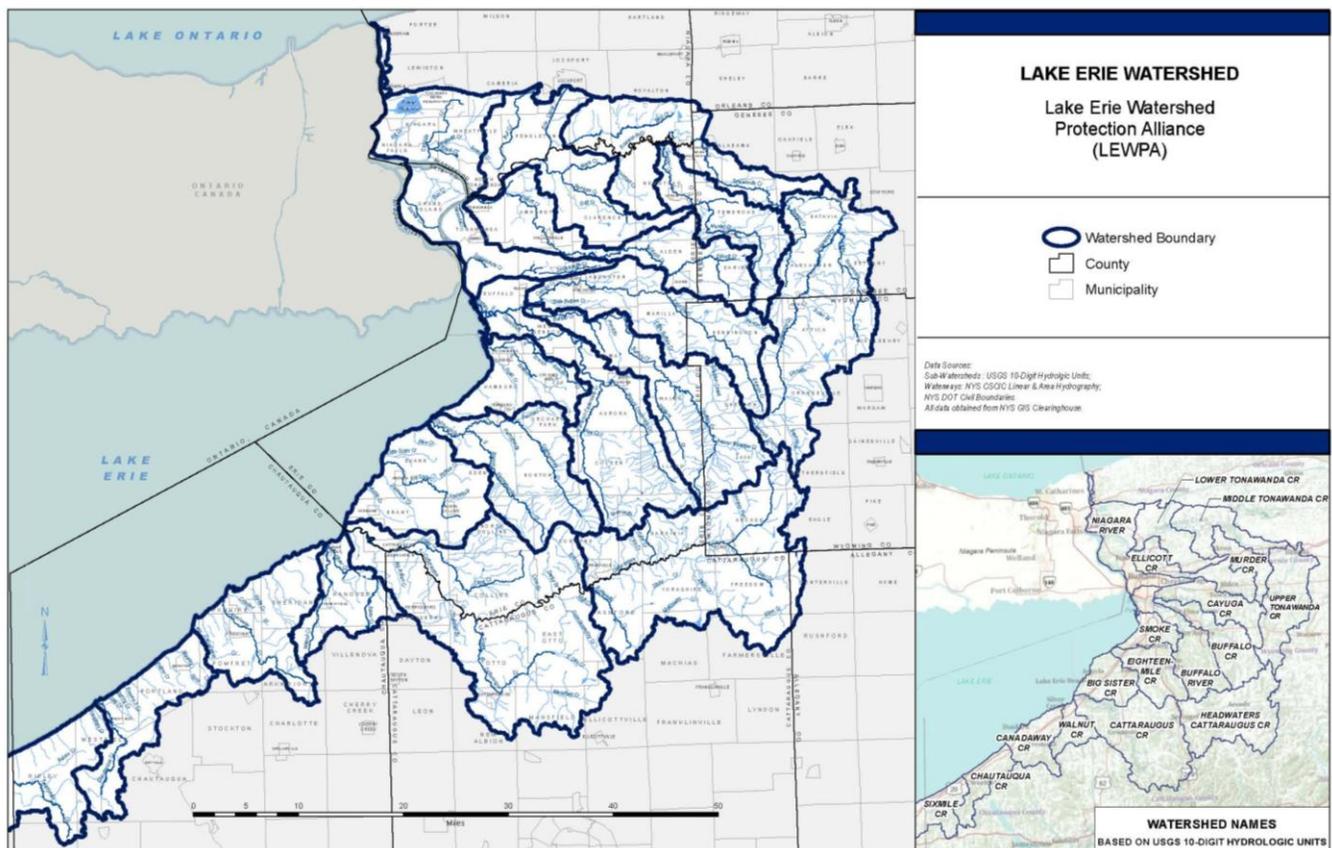


Figure 1: Map of the Lake Erie/Niagara River watershed of New York State

The watershed in the figure above includes over 1.2 million people and approximately 2,411 square miles. There are 549,334 housing units and 9.2% of them are vacant. This represents an increase in 8,281 housing units while the population declined by 36,671 since 2000¹. Sprawl is

¹ Calculated based on the watershed boundary using ESRI Business Analyst with US Census Data: Census 2010

just one of the many issues that affect the watershed. Aging water lines & sewer infrastructure, flooding concerns in developed areas, beach and wildlife-habitat degradation, and erosion of sediment deposition are some additional problems that have impacted this watershed and have caused Cattaraugus, Chautauqua, and Erie counties to work together to address these and other issues on a regional, watershed basis.

The Lake Erie Watershed Protection Alliance

Allegany, Genesee, Niagara, Orleans, and Wyoming counties are all part of the Finger Lakes-Lake Ontario Watershed Protection Alliance. Therefore, the Lake Erie Watershed Protection Alliance includes Cattaraugus, Chautauqua, and Erie counties.

The Lake Erie Watershed Protection Alliance (LEWPA) is an alliance of municipalities, elected officials, and stakeholders in Cattaraugus, Chautauqua, and Erie counties concerned with water quality and water quantity issues in the Lake Erie watershed. The Water Resources Board of LEWPA was formed in 2011 and includes three members from each of the three counties including a regional representative, a local representative, and a soil & water conservation district representative. These members meet at least once quarterly to discuss regional watershed concerns and to work together to address the priority issues without adding another layer of government to the system.

The mission of the Lake Erie Watershed Protection Alliance is to foster collaboration and partnerships within the watershed to address regional water quality and quantity concerns and in doing so, protect and enhance our Lake Erie resource.

The Lake Erie Watershed Survey

In order to effectively determine the major concerns in the watershed, LEWPA created a municipal survey and sent it to all cities, towns, and villages in the tri-county watershed area (Cattaraugus, Chautauqua, and Erie counties). The top priorities have been determined based upon those responses.

In Figure 2 below, you can see the municipalities that were surveyed and those that responded. This is the first year of the LEWPA watershed survey; however, Erie County municipalities received a similar watershed survey in 2011 through the Erie County Water Quality Committee. Many municipalities within Erie County were familiar with the survey and therefore, Erie County had the highest return rate at 64% (29 of 44 municipalities and 1 regional agency). Cattaraugus County had a return rate of 44% (7 of 16 municipalities) and Chautauqua County had a return rate of 55% (11 of 20 municipalities).

The dark grey outline indicates the watershed boundary. Surveys were sent to municipalities if any part of their boundaries included a portion of the watershed. Out of 81 cities, towns, villages, and regional agencies surveyed, a survey response was received from 47 municipalities. This represents a 58% return rate. When considering the total square miles of municipalities who returned a survey (1,254 sq. mi.) versus the total square miles of those municipalities surveyed (2,062 sq. mi.), approximately 61% of the area surveyed was covered under a response.

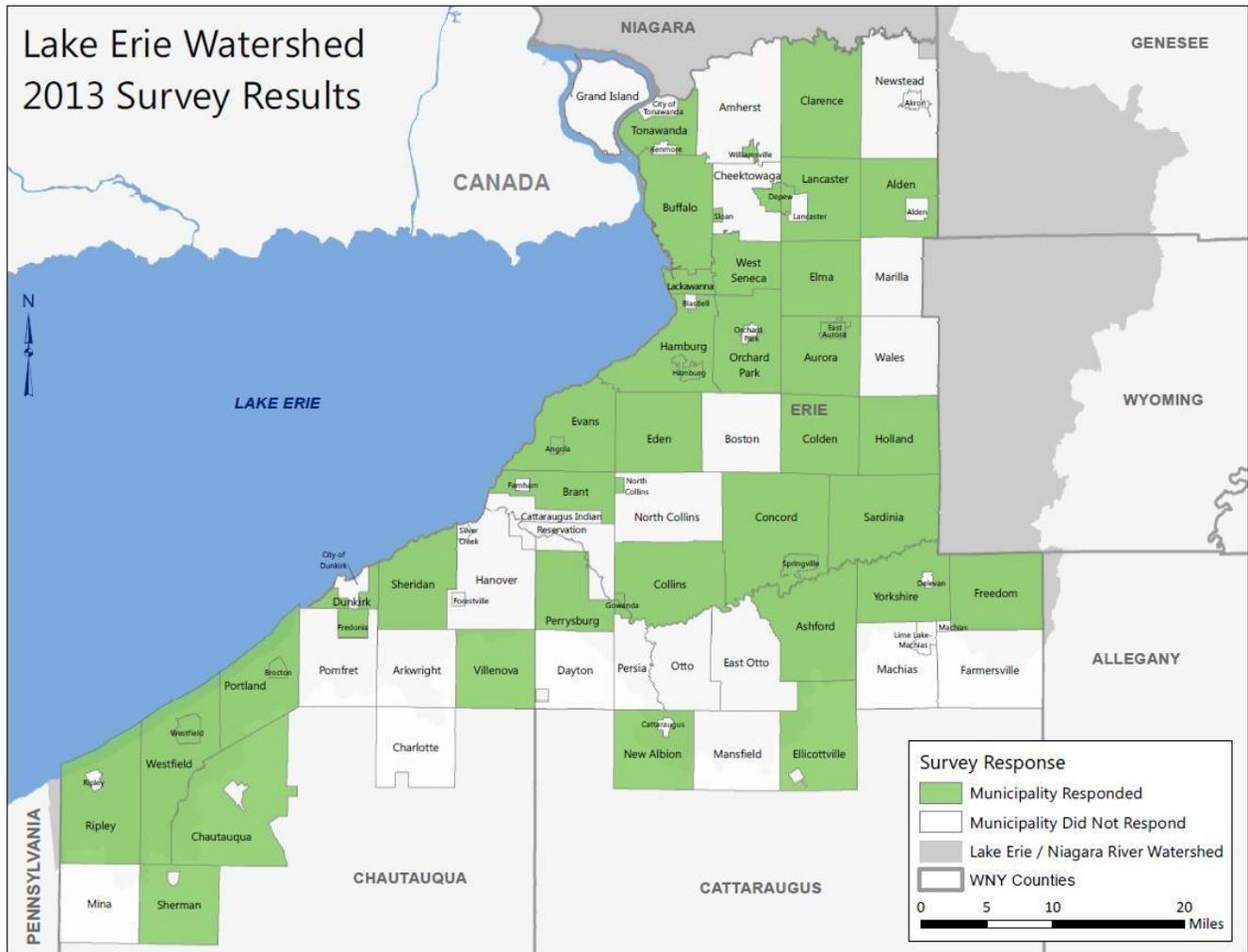


Figure 2: Map of municipal survey response for 2013

Surveys were sent in a staggered fashion. Chautauqua County municipalities were surveyed beginning in January 2013, with Cattaraugus County municipal surveys being sent in February 2013. Erie County municipal surveys were sent last, later in spring 2013, since they had been surveyed in 2011. All municipalities were given a deadline, however late submissions were accepted until the end of 2013.

All Supervisors and Mayors were mailed a paper copy of the survey. Each county had input in how the survey process would take place within their borders. In Cattaraugus County, the Cattaraugus County Department of Economic Development, Planning, and Tourism mentioned the survey when visiting supervisors and mayors and the Soil and Water Conservation District representative also followed-up with phone calls. In Chautauqua County, the municipal clerk, in addition to the Supervisor or Mayor, received a paper copy of the survey. In Erie County, the survey was mentioned to the Erie County Water Quality Committee and the Erie County Environmental Management Council representatives, in addition to the Supervisors and Mayors. The LEWPA Watershed Coordinator also contacted each municipality in the watershed. Electronic versions of the survey were sent out upon request.

Survey Results

The surveys were slightly modified in each county to make the results relevant to the issues and needs within each county. Results were provided to the individual county LEWPA board members for their use in determining county water quality goals and priorities. However, this made direct comparisons of some results between counties slightly more difficult.

The survey had two sections:

- Part I – Identification of Municipal Priorities
- Part II – Identification of Municipal Needs

PART I – Identification of Municipal Priorities:

In Part I, most of the questions asked the respondents to rank water quality concerns as high priority (H), medium priority (M), low priority (L), or no concern (NC). These were then turned into numerical scores ranging from 3 points for a high priority and 0 points for no concern. The numerical results that follow are the sum of scores for each answer.

Question 1: Rank the importance of including the following general issues as a goal of watershed management planning.

The overall top priorities for municipalities in watershed management planning include:

- *Economic development*
- *Infrastructure planning, development, or maintenance*
- *Maintenance of water quality standards*

Because a higher percentage of municipalities responded from Erie County (64% versus 44% from Cattaraugus County and 55% from Chautauqua County), and because there are more Erie County municipalities within the watershed (44 municipalities total and the Erie County Division of Sewerage Management versus 16 municipalities in Cattaraugus County and 20 municipalities in Chautauqua County), many of the Erie County top priorities are expressed as the overall watershed priorities. In order to help differentiate between some of the priorities, results were also analyzed by looking at individual county priorities.

The top priorities in each county for watershed management planning are as follows:

Cattaraugus County

1. *Flood Prevention/ Mitigation*
 2. *Infrastructure Planning/ Development/ Maintenance*
 3. *Economic Development*
- Tie:
Long-term & Regional Planning

Chautauqua County

1. *Economic Development*
2. *Infrastructure Planning/ Development/ Maintenance*
3. *Tourism Enhancement*

Erie County

1. *Economic Development*
2. *Infrastructure Planning/ Development/ Maintenance*
3. *Maintenance of Water Quality Standards*

Another way to assess the results of the survey is by looking at the type of respondent. These were categorized as lakeshore municipalities (defined as municipalities with borders on Lake Erie), inland municipalities (defined as municipalities inland of the lake), or regional agencies (defined as entities that have interests county-wide).

Municipal Watershed Planning Priorities

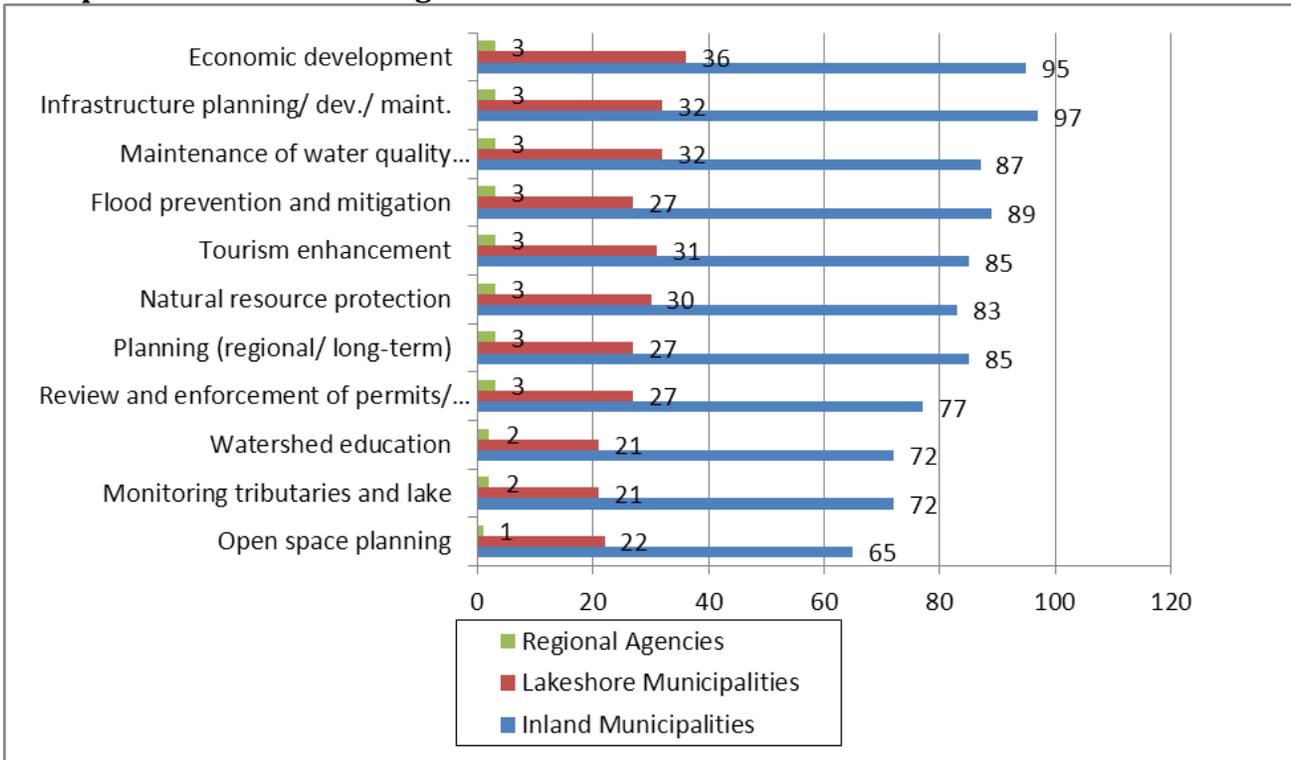


Figure 3: Chart showing watershed planning priorities based on type of respondent

The top watershed management planning priority for inland municipalities is *infrastructure planning, development, or maintenance* while the top priority for lakeshore municipalities is *economic development*.

Question 2: Rank the importance of the following shoreline or in-lake issues.

A) Lake water levels:

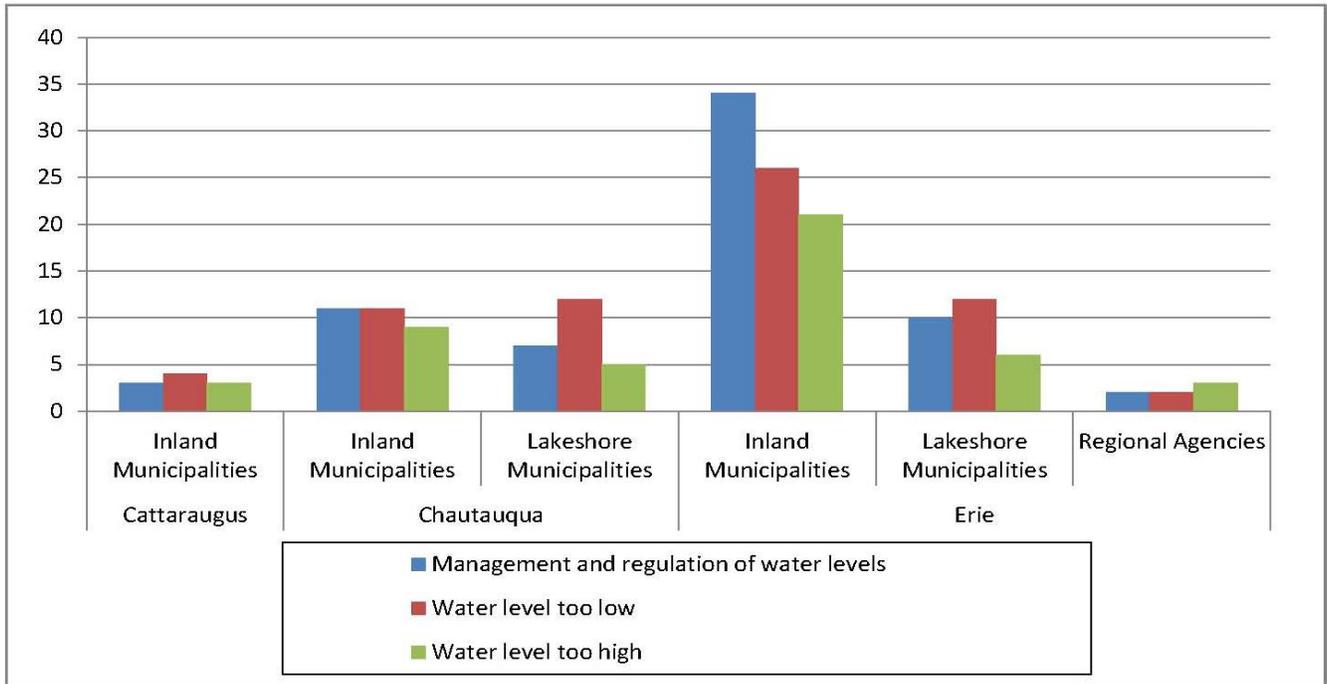


Figure 4: Chart showing the lake water level priorities based on county and type of respondent

Overall, *management and regulation of water levels* and *water level too low* received the highest sums and therefore are the highest priorities in the watershed based upon responses for the water levels question. Lakeshore municipalities in both Chautauqua and Erie counties, as well as the Cattaraugus county municipalities all responded that *water level too low* is a priority issue. It is important to note that the survey was conducted in winter and spring 2013 when there had been below-average precipitation amounts and the lake water levels had visibly dropped.

B) Lake water quality:

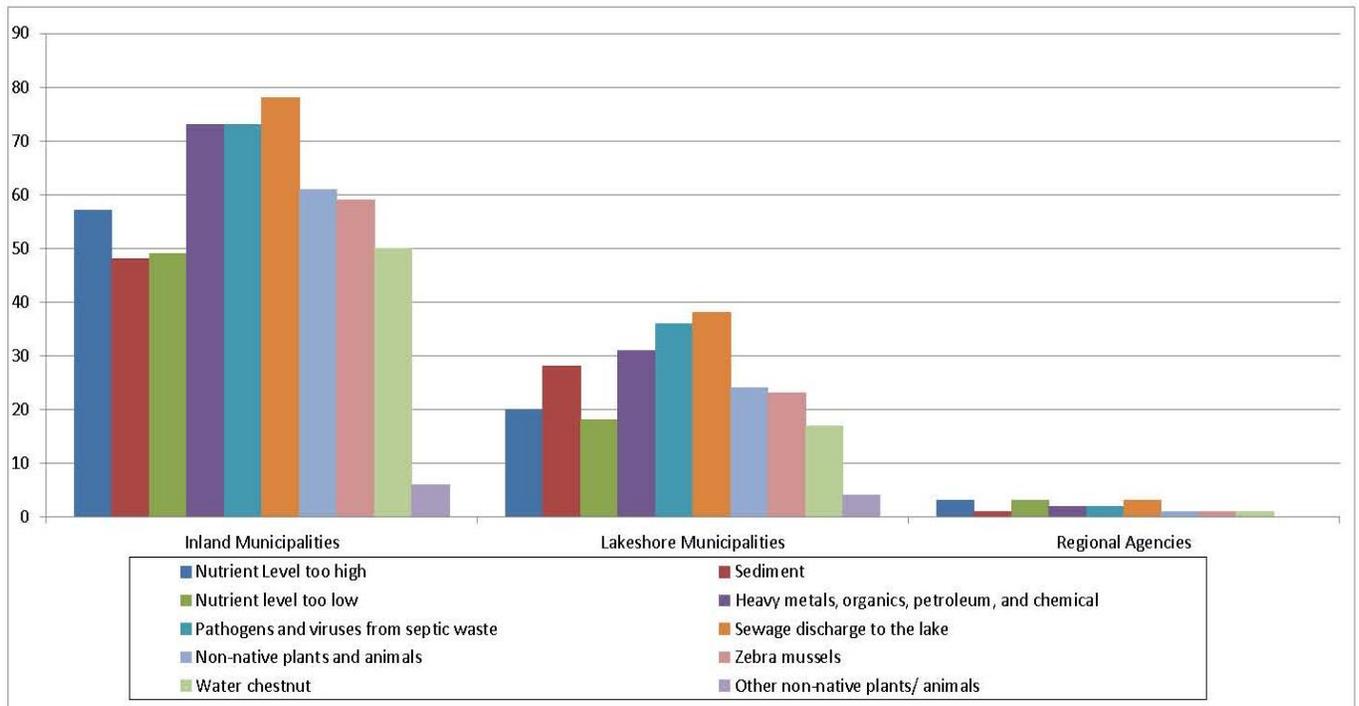


Figure 5: Chart showing the lake water quality priorities based on type of respondent

The top priorities for lake water quality are the same when examined overall or by county. These include *sewage discharges to the lake* (odor, recreation, and health impacts), followed by *pathogens and viruses from septic waste*, and *heavy metals, organics, petroleum, and chemical* contaminants. It is important to note that the Cattaraugus County survey did not ask about sediment in this question while the other two counties did. This may account for the lower score for the sediment issue. The *other non-native plants/ animals* included Asian Carp.

C) Aquatic Vegetation:

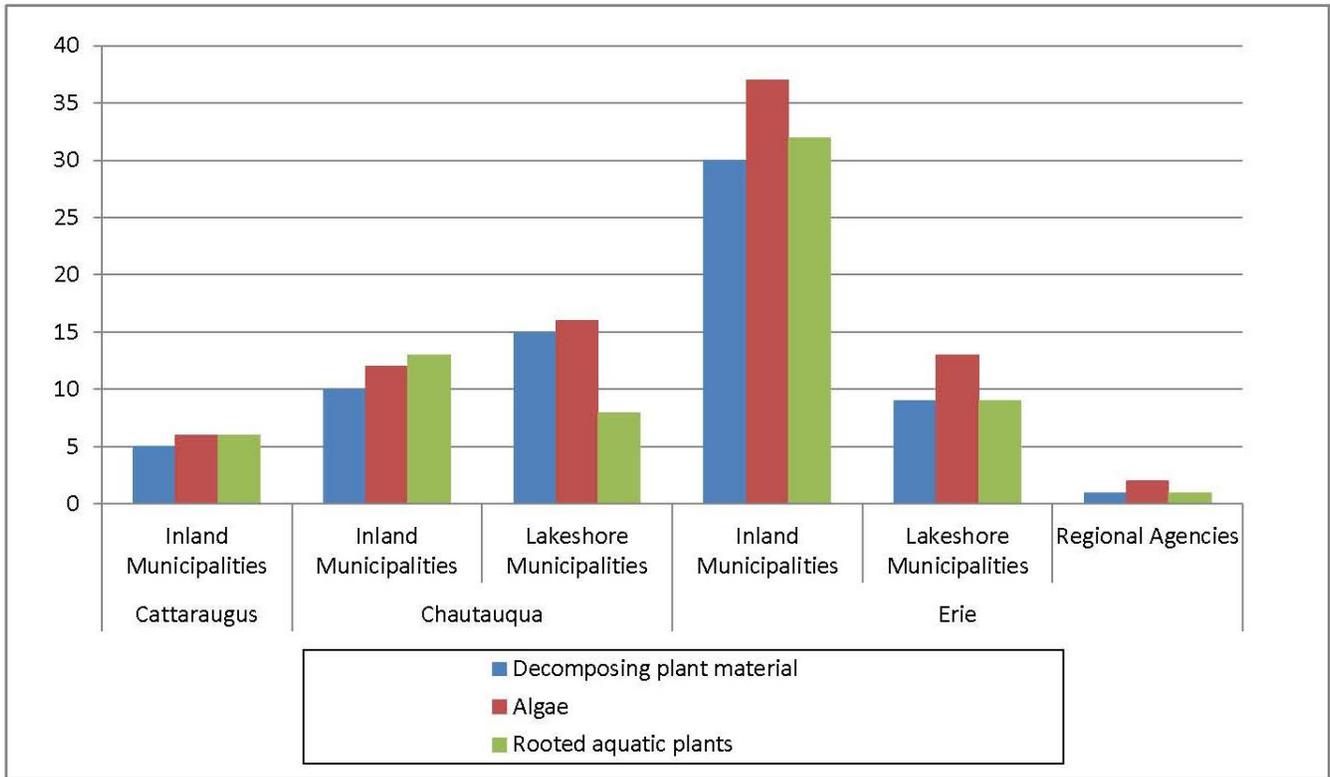


Figure 6: Chart showing the aquatic vegetation priorities based on county and type of respondent

The overall top priority for each county, as well as for each type of respondent is *algae*. It is interesting to note that in Chautauqua County, inland municipalities consider *rooted aquatic plants*, such as Water Chestnut and Hydrilla, to be a higher priority than *algae*. This may be due to the weed problems that have plagued Chautauqua Lake and the media attention it has received in recent years. An issue that was mentioned in the comments on this question was fish decomposing.

D) Cormorants:

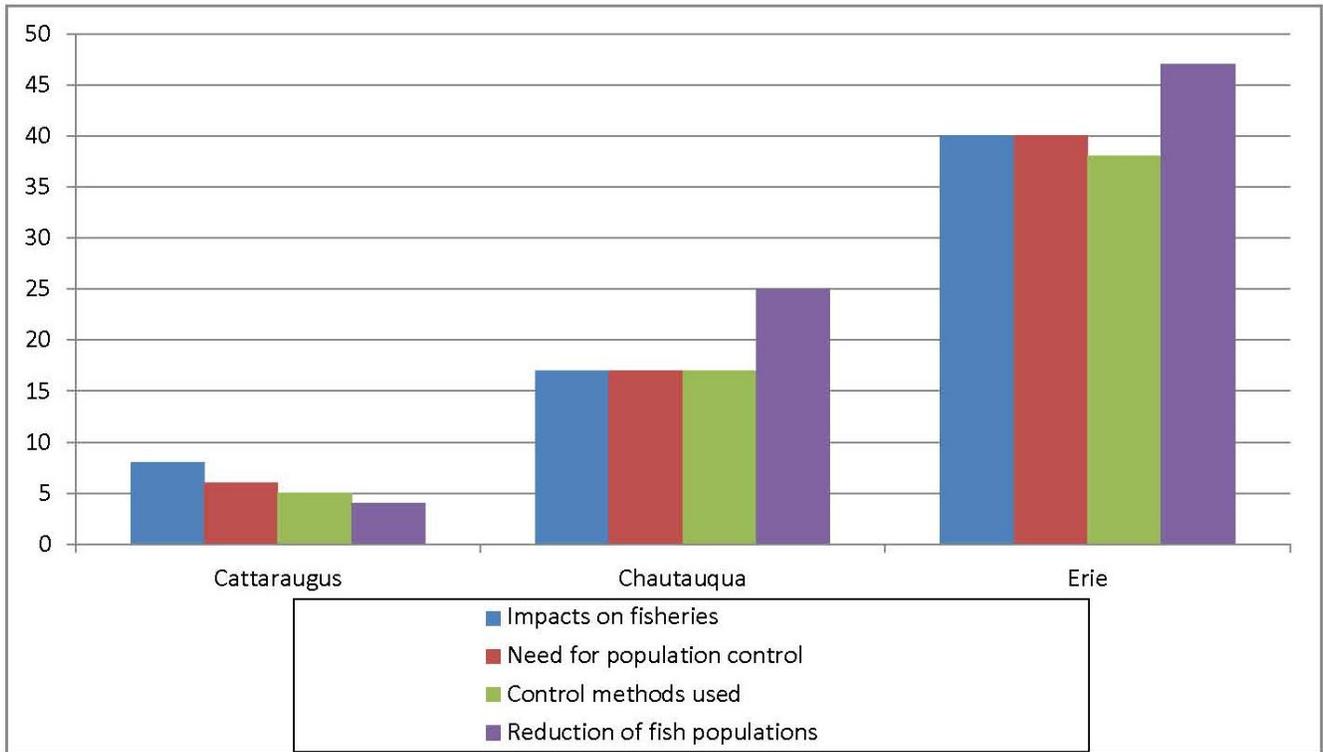


Figure 7: Chart showing the cormorant priorities based on county

Double-crested cormorants are seabirds that mainly eat fish. Overall, the top priority issue under cormorants is the *reduction of fish populations*. This is also the top priority for all types of survey respondents. Only Cattaraugus County had a different top priority – *impacts on fisheries*. It can be argued that this is a similar priority as the main concern with fisheries is most often the cormorants reducing fish populations within the fishery.

E) Boats and jet-skis:

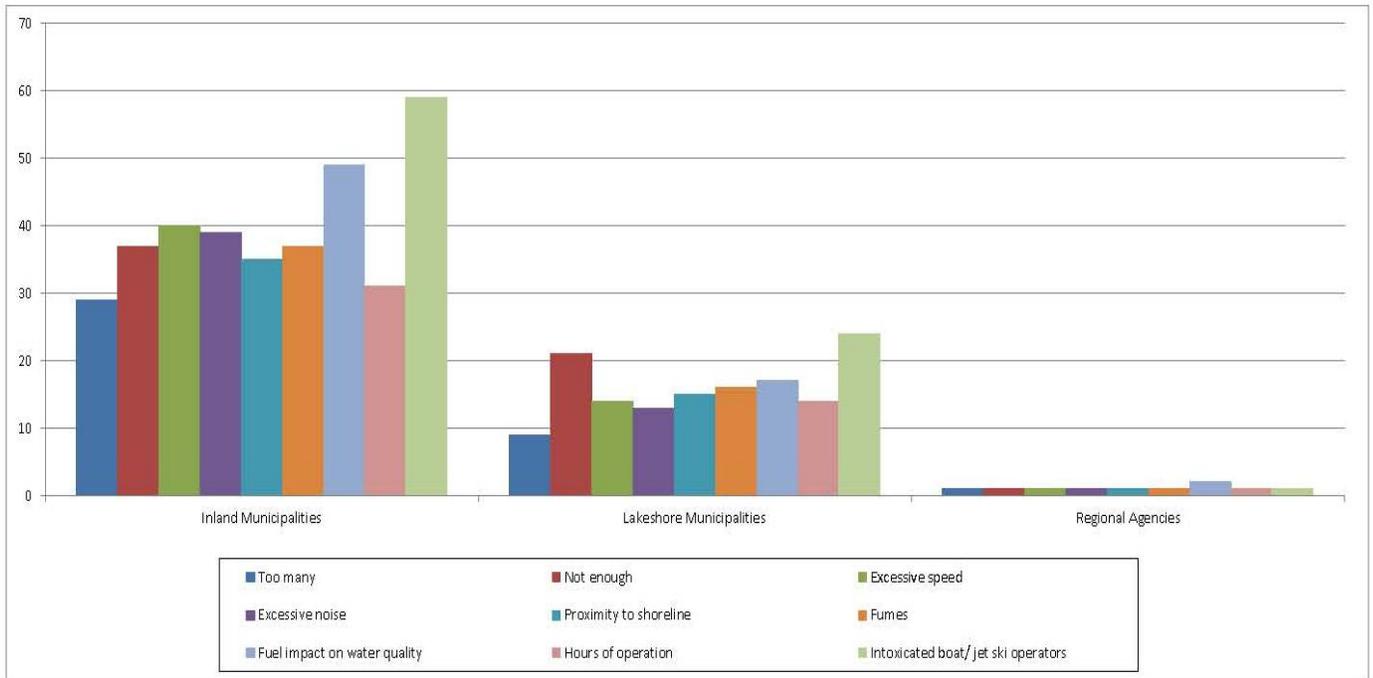


Figure 8: Chart showing the boat & Jet Ski priorities based on county and type of respondent

The top two overall priority issues under boats and jet-skis are the *intoxicated boat/ Jet Ski operators* and *fuel impact on water quality*. When looking at each county's priorities, Chautauqua County respondents rank the top two concerns as *intoxicated boat/ Jet Ski operators* and *not enough* Jet Skis and boaters (indicating the need for tourism). When looking at lakeshore vs. inland municipal priorities on this issue, inland municipalities share the overall top two priorities while lakeshore municipalities share the Chautauqua County priorities.

F) Access to Lake Erie:

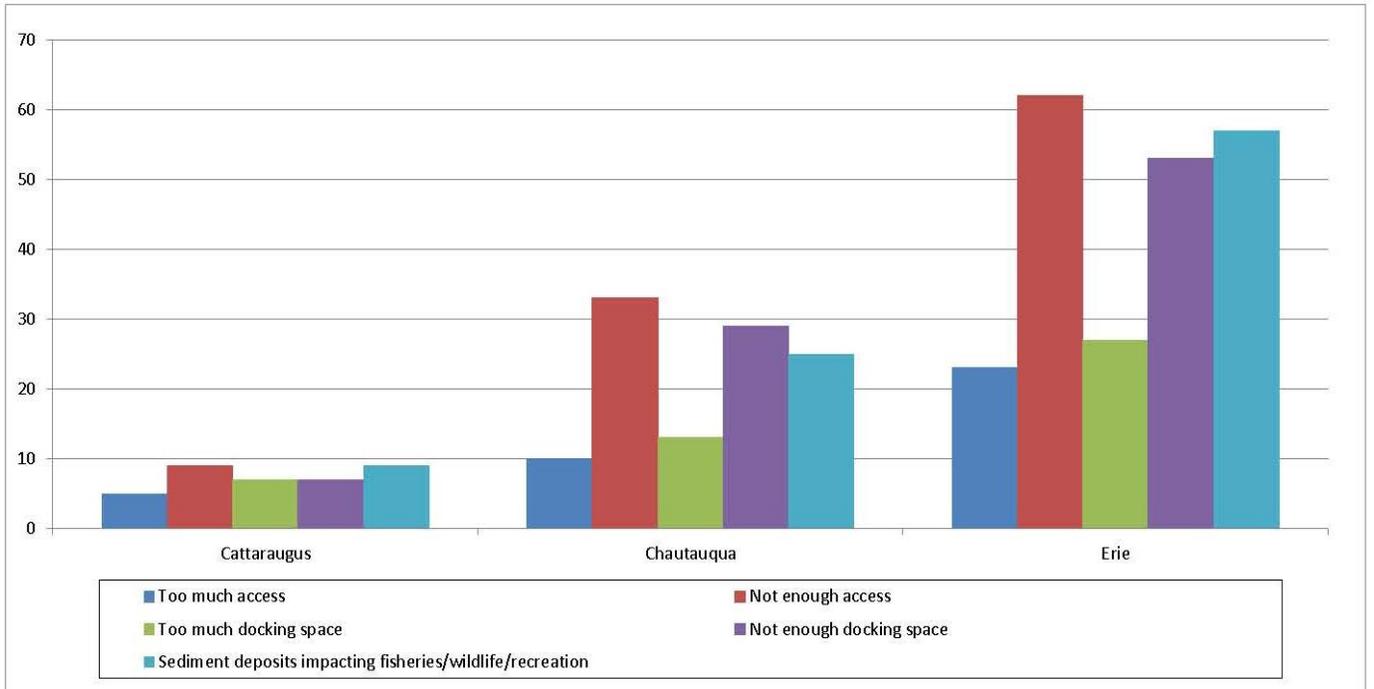


Figure 9: Chart showing the Lake Erie access priorities based on county

The overall priority, the priority for each county, and the priority for each type of respondent was the same: *Not enough access* to Lake Erie. Cattaraugus and Erie counties, as well as inland municipalities as a whole, ranked *sediment deposits impacting fisheries/wildlife/recreation* as the second priority, while Chautauqua County and the lakeshore municipalities as a whole, ranked *not enough docking space* as the second priority. Overall, increasing public access including docking access was the major priority for this category.

G) Beaches:

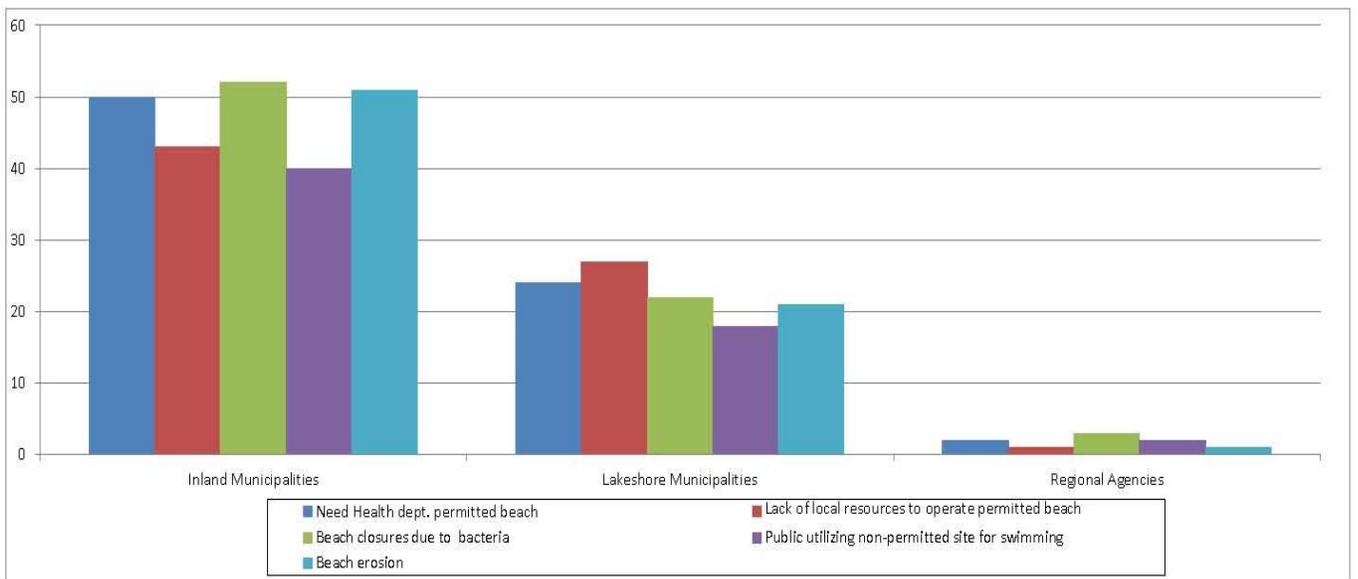


Figure 10: Chart showing priorities for beaches category based on type of respondent

Cattaraugus County did not ask a question on the beaches in the survey. Only Chautauqua and Erie county responses are included in this chart. The overall priority in this category was *beach closures due to bacteria*. This was also Erie County’s top priority. The next overall highest priority was the *need for more permitted beaches* and the Chautauqua County priority was *beach erosion*. You can see that these are also the second and third highest priorities for inland municipalities in general. It is interesting to note that lakeshore municipalities ranked *lack of local resources to operate a permitted beach* as the highest priority.

Question 3: What are the most significant upstream or watershed issues of concern in your community?

A) Development:

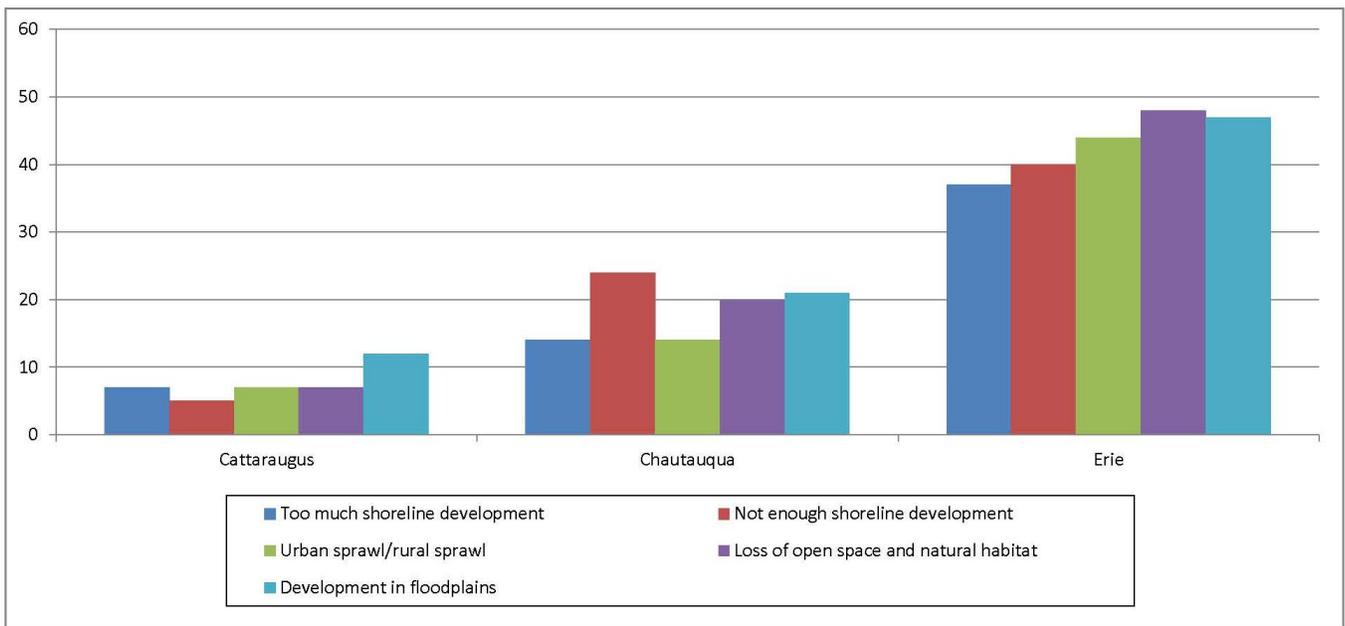


Figure 11: Chart showing the development priorities based on county

The overall top priority in this category was *development in floodplains*. Inland communities had the same top priority as Cattaraugus County of *development in floodplains* while lakeshore communities and Chautauqua County shared the top priority of *not enough shoreline development*. Erie County’s top priority is *loss of open space and natural habitat*. This demonstrates the need for responsible development throughout the region. A comment that was mentioned in this question was stream bank erosion along Eighteenmile Creek.

B) Erosion:

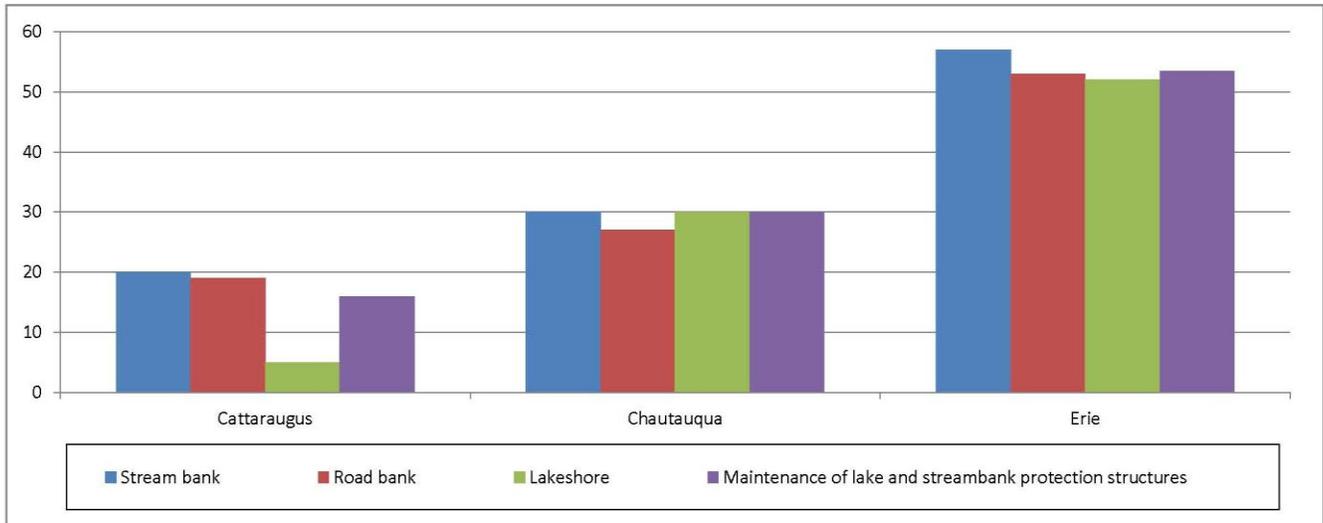


Figure 12: Chart showing the erosion priorities based on county

Erie County had asked about *lakeshore erosion* and *maintenance of lake protection structures* in question 2 (shoreline and in-lake issues). In question 3, Erie County asked about *streambank erosion*, *road bank erosion*, and *maintenance of stream bank protection structures*. The answers to both of these were combined in question 3, so that the answers could be compared to those of the other counties. The two questions in Erie County, on *maintenance of lakeshore and stream bank structures*, were averaged and compared to the other counties, who asked about them in one question. The overall priority in the watershed is *stream bank erosion*, as demonstrated in this chart. Inland communities also felt this was the top priority. Lakeshore communities ranked *lakeshore erosion* as slightly higher of a priority. As you can see in the chart above, Chautauqua County priorities were split. As expected, Cattaraugus County respondents were less concerned with *lakeshore erosion* than other types. Erosion issues are a high priority across the watershed.

C) Drinking Water:

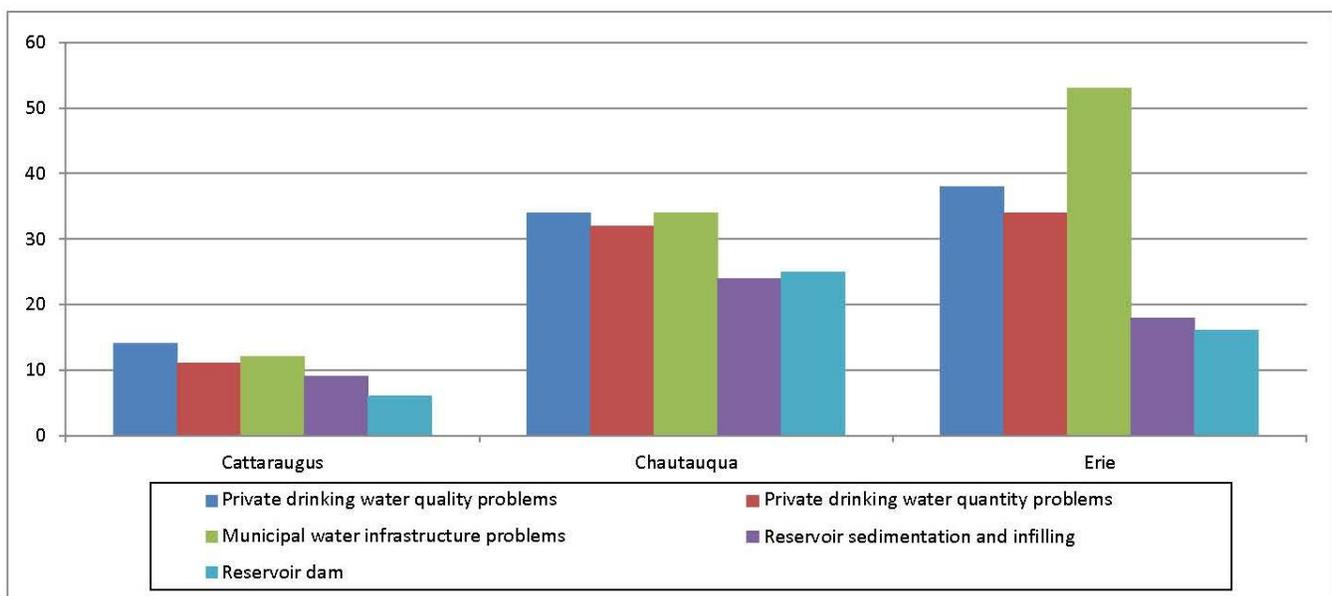


Figure 13: Chart showing the drinking water priorities based on county

Chautauqua County asked about drinking water in question 2 (shoreline and in-lake issues). Their answers were moved to this section to be compared with the other two counties. The overall priority for drinking water is *municipal water infrastructure problems*. It is also rated the highest priority for all types of respondents. Cattaraugus County rates *private drinking water quality problems* higher and Chautauqua County has the two priorities tied.

D) Stream Management:

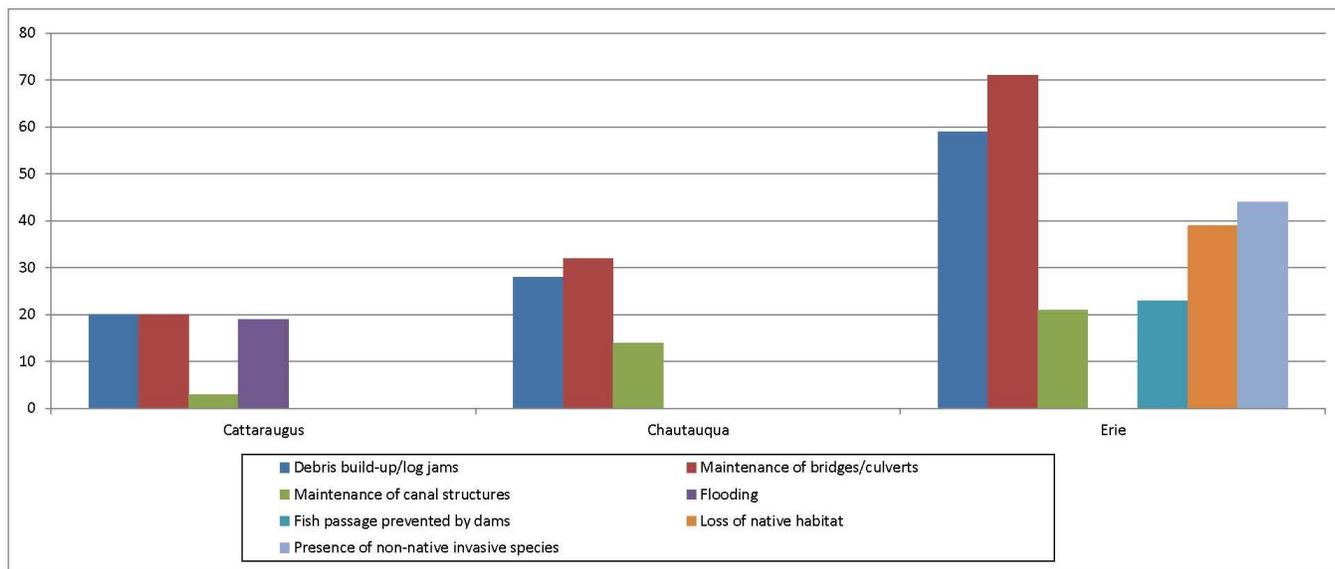


Figure 14: Chart showing stream management priorities based on county

The overall priorities for stream management are *maintenance of bridges/culverts* followed by *debris build-up/log jams*. Both lakeshore and inland municipalities mirrored these results. Regional agencies prioritized *debris build-up/log jams* above the other issues. It should be noted that Chautauqua County only asked about the first three issues listed in the chart above and Cattaraugus County only asked about the first four issues listed in the chart above. Erie County did not ask about flooding, but added three additional potential issues. The *presence of non-native invasive species* issue generated a comment of Giant Hogweed. This is an example of a question that would need to be standardized in the next round for more accurate comparison.

E) Agricultural Impacts:

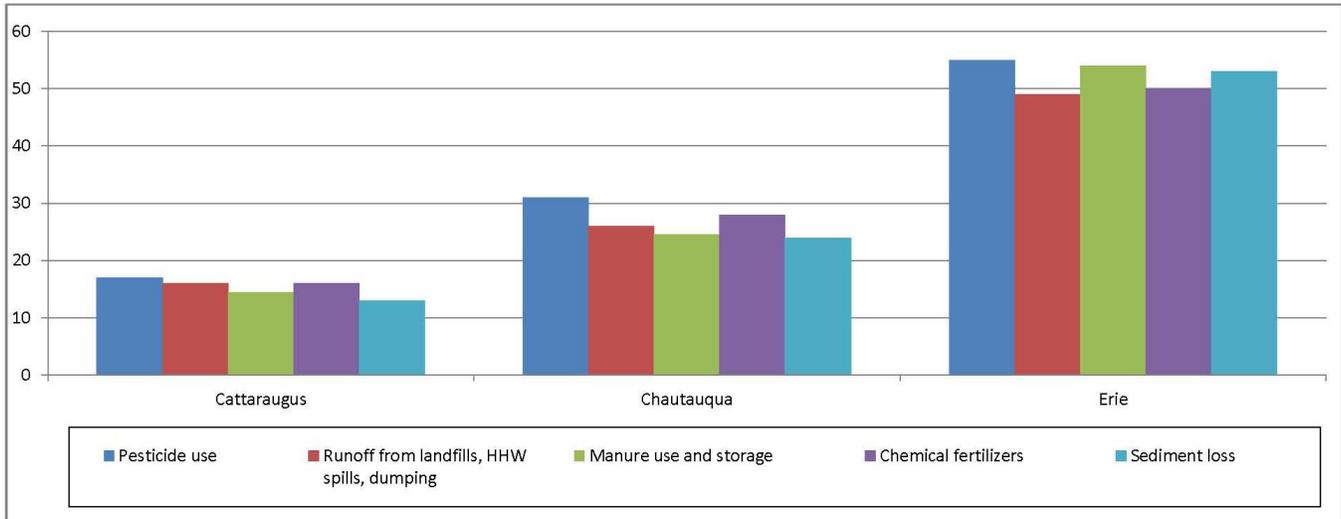


Figure 15: Chart showing the agricultural impact priorities based on county

The top priority for agricultural impacts is *pesticide use*. This is the top priority for each county and for both inland and lakeshore municipalities. Regional agencies rated all of the categories equally. The next highest issue was *chemical fertilizers*. The manure storage and manure spreading categories were separated in Cattaraugus and Chautauqua counties while Erie County combined the two. As a result, the chart above averages the rankings for manure storage and manure spreading in Cattaraugus and Chautauqua counties and compared them to Erie County's manure question. Also, Erie County asked about the *effects of runoff from hazardous spills* under the following chemical and petroleum impacts question, but the answers were analyzed under this question in order to compare all three counties. Note: HHW means household hazardous waste.

F) Chemical and Petroleum Impacts:

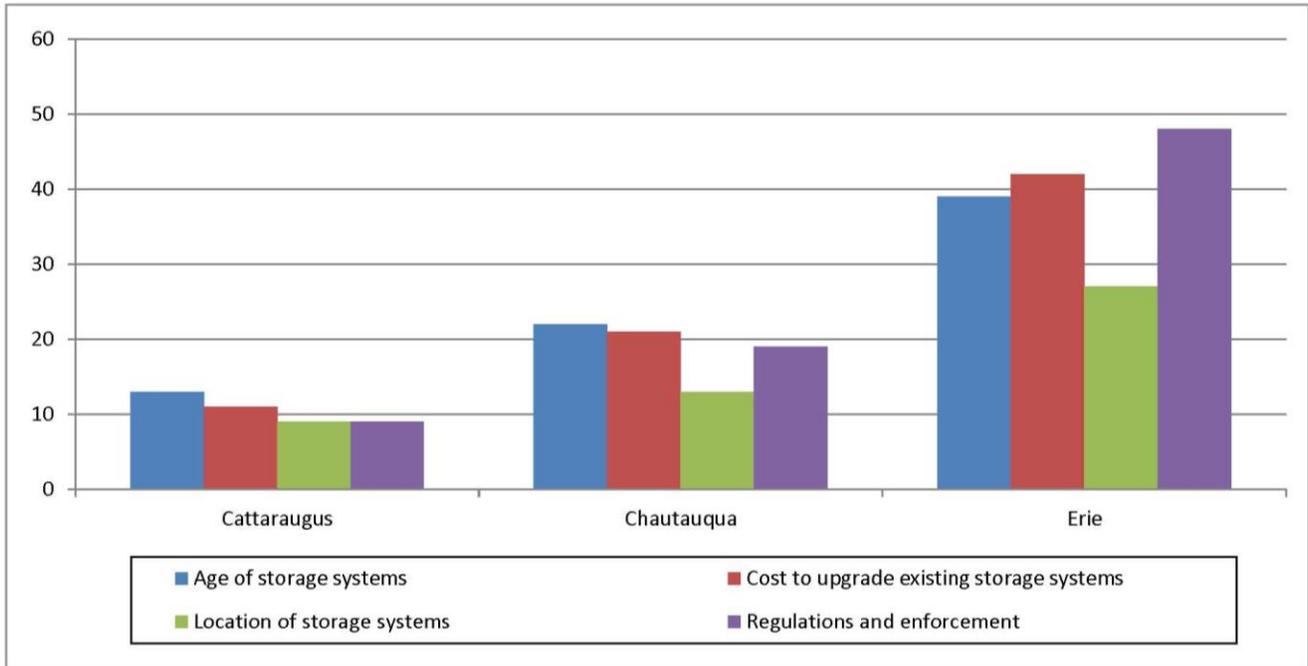


Figure 16: Chart showing chemical and petroleum impact priorities based on county

The top priority from the chemical and petroleum impacts addressed in the chart above is *regulation and enforcement* with a total sum of 76. Recall that Erie County asked about *effects of runoff from hazardous spills* in this question however, Cattaraugus and Chautauqua counties asked about it under agricultural impacts. The total for *runoff from landfills, household hazardous waste spills, dumping* was 91. Therefore, if that issue had been moved to this question, it would have been the top priority. It is also important to note that both Cattaraugus and Chautauqua counties ranked the *age of storage systems* to be the highest priority followed by the *cost to upgrade the existing storage systems* over *regulation and enforcement*. These other issues both received a sum of 74 overall. Lakeshore municipalities barely rated *age of storage systems* as the highest priority while inland municipalities rated *regulations and enforcement* as the highest priority. Other write-in comments referenced a private sewage system in a hamlet next to Cattaraugus Creek and chemical/fertilizer proximity to watershed as concerns.

G) Commercial and Industrial Impacts:

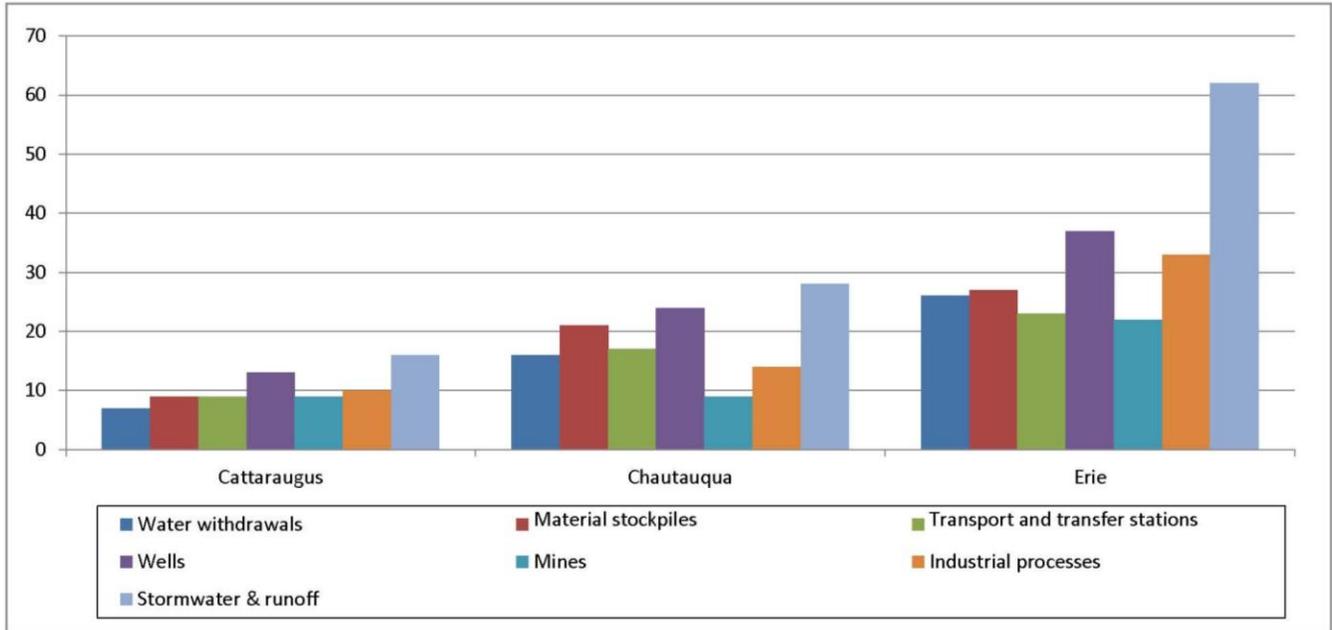


Figure 17: Chart showing the commercial and industrial impact priorities based on county

The top overall priority is *stormwater runoff*. It is also the top priority for each county and for both inland and lakeshore municipalities. The second highest priority is *wells*, which was undefined in this question and could mean waste storage wells or drinking water wells. This would have to be defined in the next survey. Inland municipalities ranked *wells* as the second highest priority while lakeshore municipalities ranked *material stockpiles* as the second highest priority. A comment that was mentioned was, “Fracking.”

H) Highway Maintenance Impacts:

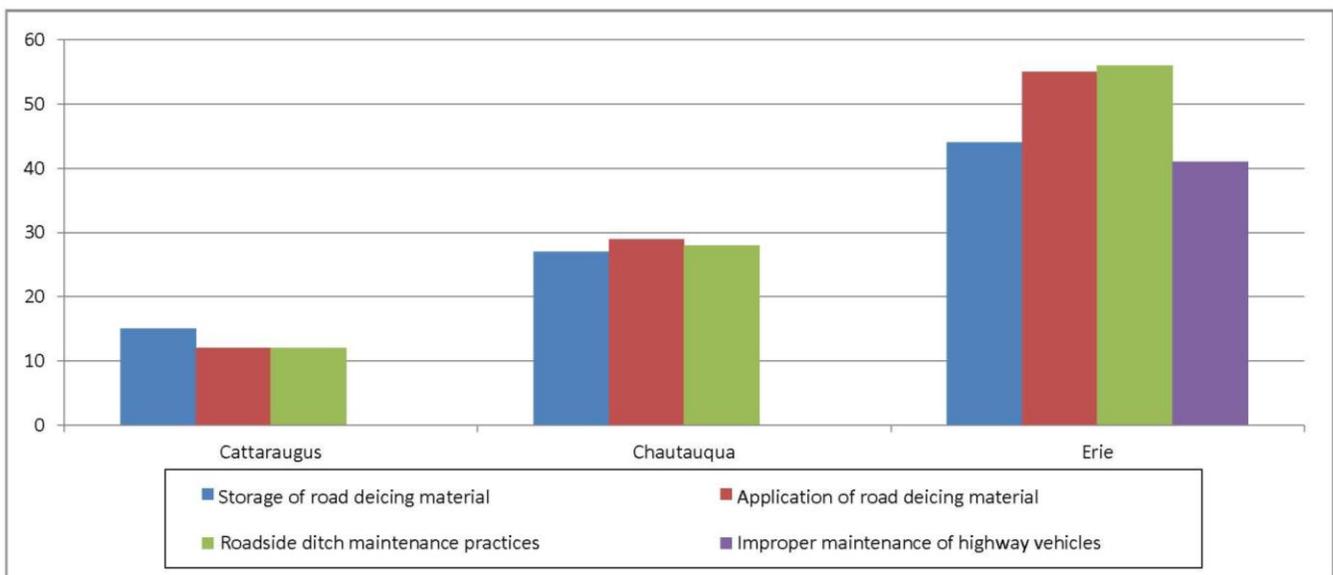


Figure 18: Chart showing the highway maintenance impacts based on county

Application of road deicing material and *roadside ditch maintenance practices* are tied as the overall priority for this issue and are the top two priority issues for lakeshore and inland

municipalities. Regional agencies ranked all of the above impacts equally. Only Erie County asked about the improper maintenance of highway vehicles. One extra comment mentioned the need for grants for ditch maintenance.

I) Residential Impacts:

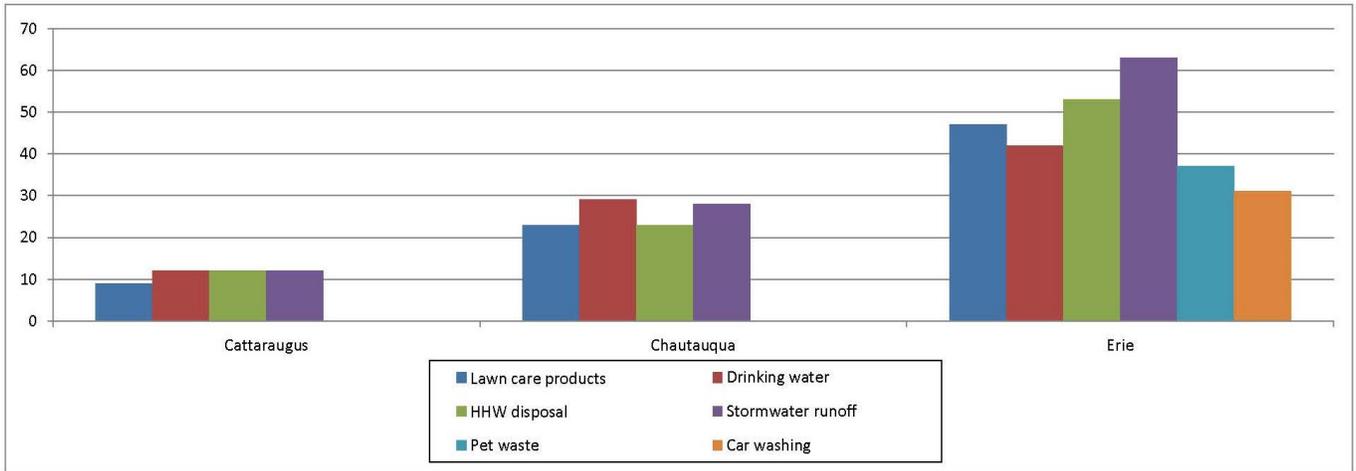


Figure 19: Chart showing the residential impact priorities based on county

Stormwater runoff is the overall top priority. It is also the top priority for all types of respondents. Cattaraugus County ranked *drinking water*, *household hazardous waste (HHW) disposal*, and *stormwater runoff* equally high. Chautauqua County ranked *drinking water* as a slightly higher priority than *stormwater runoff*. Erie County followed the overall top priority and ranked *stormwater runoff* highest. Erie County also asked about *pet waste* and *car washing* while the other two counties did not.

J) On-site Septic Systems:

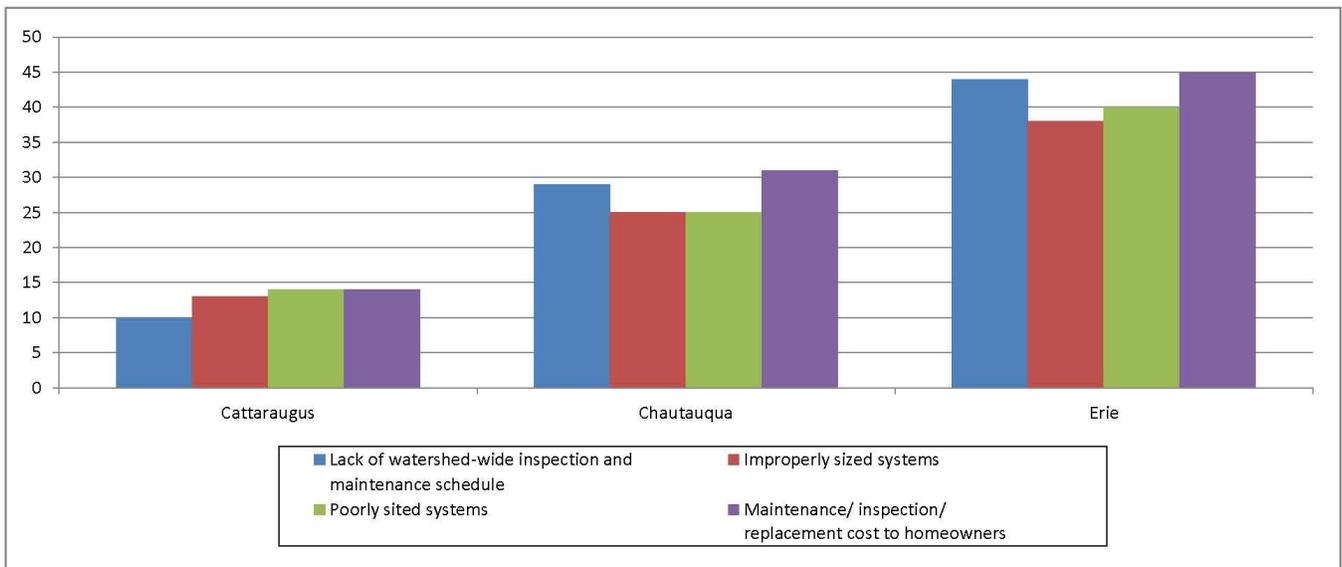


Figure 20: Chart showing the septic system priorities based on county

The *maintenance/inspection/replacement cost to homeowners* of septic systems is the overall top priority, as well as being the top priority among the various types of respondents and three

counties. The second highest overall priority is the *lack of a watershed-wide inspection and maintenance schedule*. An additional comment for this section was a lack of a municipal sewage treatment plant.

K) Stormwater and Sewage Infrastructure:

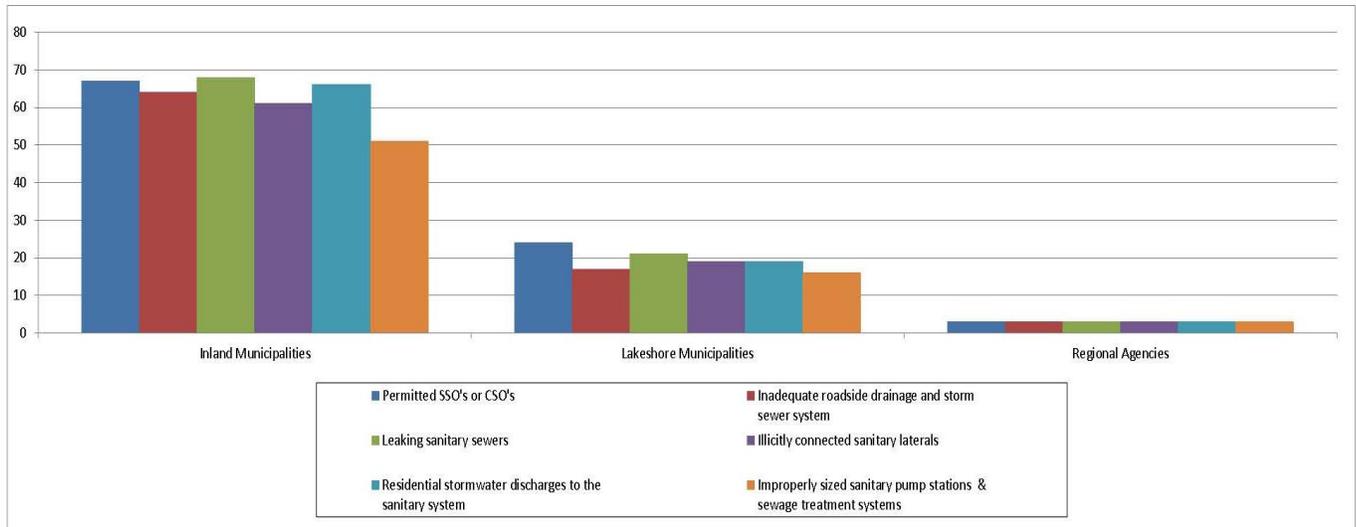


Figure 21: Chart showing the infrastructure priorities based on county

Top priority for the infrastructure issue is *permitted Sanitary Sewer Overflows (SSO's) and Combined Sewer Overflows (CSO's)*. Following closely is the second priority of *leaking sanitary sewers*. *Permitted CSO's and SSO's* was also the top priority for lakeshore municipalities and Chautauqua County, while inland municipalities and Erie County ranked *leaking sanitary sewers* as the top priority. Cattaraugus County ranked both *leaking sanitary sewers* and *inadequate roadside drainage and storm sewer systems* as the top priorities. There were two comments indicating the need for additional public infrastructure.

L) Local Laws and Regulations:

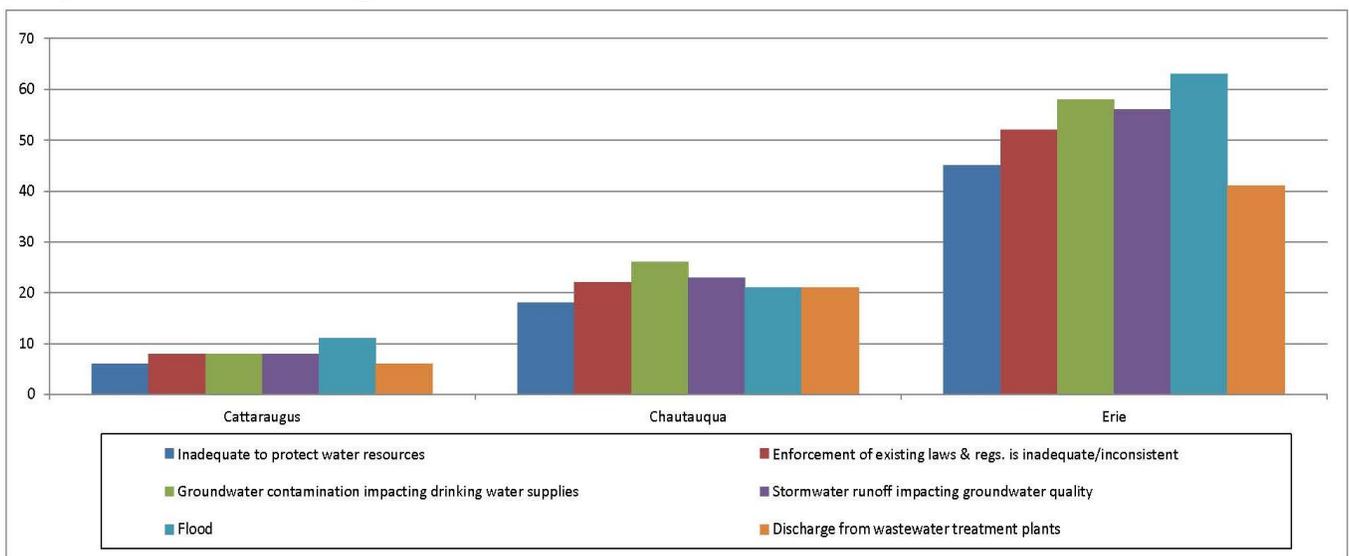


Figure 22: Chart showing the local laws and regulations priorities based on type of respondent

Flooding was the top priority followed by *groundwater contamination impacting drinking water* under local laws and regulations. Both inland and lakeshore municipalities, as well as Cattaraugus and Erie counties consider *flooding* to be a top priority while regional agencies and Chautauqua County consider *groundwater contamination impacting drinking water supplies* to be a higher priority. A comment was made on the need for laws on hydraulic fracturing or “fracking.”

Question 4: Rank the top five highest priorities from question 2 and 3 that need to be addressed in the watershed management plan.

The write-in answers for this question were incredibly varied. Each municipality had different priorities. Because the answers to this question were so varied, the top five ranked priorities from questions 2 and 3 from each county were tabulated instead of using the write-in answers. They are shown below. You can see which categories were most important to each county. Erie County has six issues listed because of a tie. The sums of the ratings are shown next to each priority issue.

Cattaraugus County: (n=16)

Category: Erosion

Stream bank	20
Road bank	19

Category: Stream Management

Debris build-up/log jams	20
Maintenance of bridges/culverts	20
Flooding	19

Chautauqua County: (n=20)

Category: Lake Water Quality

Heavy metals, organics, petroleum, and chemical	34
Pathogens and viruses from septic waste	36
Sewage discharge to the lake	39

Category: Drinking Water

Private drinking water quality problems	34
Municipal water infrastructure problems	34

Erie County: (n=45)

Category: Lake Water Quality

Heavy metals and organics	64
Pathogens and viruses from septic waste	66
Sewage discharge to the lake	70

Category: Stream Management

Maintenance of bridges/culverts	71
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Category: Residential Impacts

Stormwater runoff	63
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Category: Local Laws and Regulations

Flood and flood plain management	63
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Note: n signifies the number of surveys sent out in that county

Question 5: Rate the overall quality of the following waterbodies.

Each survey asked municipalities to rate the quality of certain waterbodies in their county on a scale from 1 to 10 with 10 meaning poor quality. The averages for each waterbody are displayed below. As the average increases, the lower the quality is perceived. Waterbodies are sorted from high quality to low quality. Not every respondent rated every waterbody in the county. In several cases, municipalities were uncomfortable rating waterbodies outside of their boundaries.

Cattaraugus County:

Buttermilk Creek	5.00
Lime Lake	5.33
South Branch Catt Creek and tributaries	5.50
Elton Creek and tributaries	5.67
Connoisarauley Creek	6.00
Clear Creek and tributaries	6.00
Cattaraugus Creek and tributaries	6.33
Others (Thatcher Brook)	8.00

Chautauqua County:

Cattaraugus Creek	5.00
Chautauqua Creek	5.33
Canadaway Creek	5.44
Lake Erie	5.73
Twenty-mile Creek	5.86

Erie County:

Cayuga Creek	5.40
Lake Erie	5.42
Cazenovia Creek	5.83
Tonawanda Creek	5.86
Niagara River	6.10
Ellicott Creek	6.69
Buffalo River/Creek	6.89
Smoke Creek	7.42
Scajaquada Creek	7.63

PART II – Identification of Municipal Needs:

In the second part of the survey, each municipality was asked to write-in answers to questions. This portion of the survey had less response than the first portion.

Question 6: Thinking about the issues listed in the survey, list the top five issues that municipalities would best be able to address.

The number in parenthesis indicates the number of times that issue was given as a response to the question. The top six issues for Chautauqua County and Erie County are listed due to a tie.

Cattaraugus County:

- Erosion (3)
- Maintenance of bridges, culverts, and highways (2)
- Roadside ditch maintenance or inadequate roadside drainage (2)
- Stormwater and public sewer infrastructure (2)
- Stream stabilization and management (2)

Chautauqua County:

- Water/stormwater/sewer infrastructure age and condition (4)
- Drinking water (2)
- Erosion (2)
- Improper (sizing of) pump stations/treatment systems (2)
- Lake access (2)
- Residential stormwater discharge into septic/sanitary lines (2)

Erie County:

- Stormwater discharges/runoff (16)
- Highway maintenance impacts including road deicing (9)
- Sewer discharges (SSO/CSO abatement) and financial assistance (9)
- Addressing development/zoning concerns (7)
- Addressing failing municipal infrastructure (6)
- Laws (and enforcing regulations) to protect water resources (6)

When the issues are combined into more generalized categories, the following are the top five across the three counties:

1. Water/ Wastewater Infrastructure (69)
2. Planning and Protection (24)
3. Streams/Erosion/Tributary Monitoring (24)
4. Transportation Infrastructure Maintenance (19)
5. Non-point Source Pollution Prevention Education (8)

Question 7: What assistance or additional information would help your municipality to address the issues identified in Question 6?

Below are the types of responses received for this question. For both question 7 and question 8, the answers fall generally into three categories:

1. Funding Assistance
 - Funding for sanitary sewer infrastructure upgrades
 - Funding for repairing or addressing leaking septic systems
 - Funding for salt storage system
 - Funding for storm sewers
 - Information on finding state and federal grants and low-interest loans
 - How to fund the local laws, codes, and mandates to make enforcement easier
 - Grant writing assistance
 - Lobbying

2. Outreach and Education

- Educational materials
- Handouts and webpage materials
- Outreach to municipal boards and planning boards
- Increasing public awareness
- Distributing FEMA flood map information to the public

3. Technical Assistance

- Technical advice from regional entities such as Soil & Water Conservation District, Cornell Cooperative Extension, NYS Department of Environmental Conservation, and U.S. Army Corps of Engineers
- Local road engineering ideas and plans
- Information on road deicing practices and materials
- Best management practices for both private and municipal ditch maintenance
- Assistance evaluating and identifying sources of inflow and infiltration to sanitary lines
- Research on how other counties are handling infrastructure expansion and engineering costs
- Investigate how other areas of state and country disseminate information and deal with water quality issues
- Advice on infrastructure issues
- Studies to enhance water infrastructure
- Technical information on contaminants
- Provide examples of local laws that work and how they are enforced
- Having consistent regulations on both sides of the border
- Legal assistance
- Sewershed planning
- Planning assistance
- Monitoring the watershed
- Reducing stormwater runoff
- Work with FEMA on flood map changes
- Coordinating septic enforcement
- Opportunities for municipal collaboration

Question 8: Please list products or services you would like from watershed management planning.

Again, the responses for this question fall into the same three general categories as question 7.

1. Funding Assistance

- Funding to remediate issues or avoid them in the first place
- Assistance with funding opportunities and applying for funding
- Grant writer

2. Outreach and Education

- Educating the public on proper watershed management practices
- Information for school-age children
- Seminars for public education or general education
- Further opportunities for intermunicipal cooperation
- Education and materials for municipalities
- Updated newsletter to remain current with new development
- Framework for action
- Organization of watershed committees to discuss regulations and apply for funding together

3. Technical Assistance

- Identifying wastewater contamination problems
- Assistance with outside engineer assessments for smaller water expansion projects
- Updating and reviewing local laws
- General technical assistance
- Planning assistance
- Engineering services
- Design of projects
- Assistance with studies
- Legal assistance

Question 9: Please provide ideas regarding how to improve communication between municipalities, government agencies, and stakeholder groups.

The following are the responses including ideas for improved communications:

- Email blasts are great to get the message to a large audience between meetings (or when too busy for meetings) (6)
- Quarterly meetings between all interested parties (3)
- Webinars or biweekly web meetings (3)
- PowerPoint presentation to municipalities on what LEWPA and other groups have done (2)
- Public presentations and Town Hall meetings (2)
- Website specific to the watershed municipalities (2)
- Semi-annual meetings on issues/progress (1)
- Regular meetings of stakeholders (1)
- Annual stakeholder meetings, webinars, or web-based sharing (1)
- Erie County Water Quality Committee and New York Water Environment Association (1)
- More meetings between Lake Erie Management Commission and Chautauqua Lake Management Commission and local officials (1)
- What we are doing now is fine (1)
- Open forum meetings to discuss situations separately (1)
- Have joint municipal meeting with Lake Erie municipalities to review concerns (1)
- Lake Erie Watershed protection Alliance updates and information sharing (1)
- Regional meetings (1)
- Micro region committees on stormwater (2-3 municipalities) (1)
- Local town highway department workshops (1)

- Government regulatory agency meetings to discuss/present upcoming issues (1)
- Suggestions for technical assistance & cooperative arrangements among municipalities (1)
- Focused discussions on specific topics with expertise from engineering/consulting community (1)
- Build a chat room for a quick response to questions from a variety of sources (1)
- Infomercials to educate the public (1)
- Inform municipalities of grants or funding and assist with grant writing (1)
- Newsletters and press releases (1)
- Committee meetings (1)

Question 10: What kind of educational workshops would you like to see scheduled in your community?

All counties:

- Funding

Cattaraugus County

- Funding for capital improvement projects (1)
- Roadway and roadside drainage (1)
- Stream bank protection (1)

Chautauqua County

- Grant writing (1)
- Funding (1)
- Technical Assistance for addressing common concerns (1)
- Issues from hydraulic fracturing of wells (1)
- Drinking water issues (1)
- Economic development along Lake Erie waterfront (1)
- Communities reviewing local laws for protection of watershed (1)
- Water quality and water quantity (1)
- Status of Lake Erie Watershed, areas that need improvement, and BMP's (1)
- Lake levels from a recreational standpoint (1)
- Contamination sources and how to deal with private sources (1)
- Water quality in each municipal system and how it could be combined to one system (1)
- Stormwater requirements seminar (1)

Erie County

- Stormwater runoff/non-point source pollution prevention for property owners (7)
- Soil erosion control (5)
- Homeowner responsibilities and awareness (4)
- What ECWQC/LEWPA and other areas are doing (2)
- Homeowner illegal dumping/illegal discharge consequences (2)
- Well water testing (1)
- Septic and Sewer infiltration (1)
- Anything with water quality (1)
- Awareness for business owners (1)

- Separate training courses for large and small contracting/development companies (1)
- Assistance programs (1)
- Goals and Achievements (1)
- Hydraulic fracturing impacts and benefits (1)
- Funding (1)
- Green Infrastructure (1)
- International regulations (1)
- Regulatory updates (1)
- Workshops for farmers and homeowners with property along creeks (1)
- Eighteenmile Creek stakeholder group (creek bank erosion, pollution sources, possible solutions) (1)
- Fertilizer runoff (1)
- Protection of water resources (1)
- Federal and NYS coastal priorities and Great Lakes Action Agenda (1)

Question 11: What water quality related projects are currently underway?

This question was asked to determine what type of work was in progress around the watershed. Below are the brief descriptions of the projects from respondents.

Wastewater and Stormwater

- Wastewater treatment system upgrade to address new business along Route 5
- Sanitary sewer overflow removal phase 1 in Town of West Seneca
- Eliminating sanitary sewer pumping stations and overflows in Village of Hamburg
- Rush Creek interceptor to bypass the outdated Blasdell wastewater treatment plant
- Village of North Collins wastewater treatment plant & pumping station upgrades, as well as drainage improvements
- Green Infrastructure rain garden on E. Spring Street in Village of Williamsville
- Village of Springville wastewater treatment plant upgrade to control erosion
- Town of Tonawanda Wet Weather Long Term Control Plan
- Parker-Fries Interceptor project in Town of Tonawanda
- Town of Concord sewer lines in a subdivision
- Retention ponds in Town of Clarence subdivisions
- Hamburg golf course flood mitigation
- Various sanitary sewer rehabilitation projects in Erie County sewer districts
- Buffalo Sewer Authority CSO Long Term Control Plan

Water

- Expansion of a six inch water line on the west side of Hill Road and the inclusion of three fire hydrants
- Eight inch water line and two fire hydrants on Route 20 West
- Water District #7 phase 1 completion in the Town of Portland
- Water line project from C. Dunkirk , T. Pomfret, and T. Portland to provide water to customers along Route 5 waterfront
- Chadwick Bay Regional Water Board
- Water supply line relocation from Chautauqua Gorge

- Bi-annual well water-testing in Erie County
- Village of North Collins replacing pipes, hydrants and shut-off valves
- New water transmittal line from Erie County Water Authority to the Town of Eden
- Water District #5 Town of Eden
- Replacing water pipes along Route 62 in Town of Eden

Waterfront

- Barcelona Harbor and pier improvements in the Town of Westfield
- Creek bank stabilization project in Town of Sardinia
- Annual Lake Erie Beach Sweep in Town of Evans
- Sturgeon Point Nature Trail phase 1 to preserve wetlands and create new trail and gazebo
- Habitat restoration in Town of Clarence

Planning

- Buffalo Green Code
- Local Waterfront Revitalization Plans

Question 12: What water quality related projects are shovel-ready, meaning planning is complete and projects are ready to begin once funding resources are identified?

This question was asked to determine what the immediate needs of the respondents were. Brief descriptions are provided below.

Wastewater and Stormwater

- Town of Tonawanda Wet Weather Long Term Control Plan next phase
- Parker-Fries Interceptor project next phase
- Baker Road and Weiss Road reconstruction projects with deeper stormwater catch basins in the Town of Orchard Park
- Municipal sewer system pre-engineering studies completed for Town of Yorkshire
- Westside sewer pumping station relocation from deteriorating Chautauqua Creek bank. Property purchased, engineering studies complete, and ready to bid
- Canadaway Creek erosion encroaching on sanitary sewer line. Engineering blue prints complete, but need funding for materials
- Village of Brocton sewer treatment upgrade ready to bid
- Further phases of the Rush Creek Interceptor Project
- Sewer rehabilitation in Hamburg
- Further phases of the Hamburg golf course flood mitigation
- Buffalo Sewer Authority Long Term Control Plan implementation of grey and green projects

Water

- Chadwick Bay regional water project for residents in northern Chautauqua County
- West Valley Crystal Water Company
- Barcelona water line replacement
- Upgrades for subsidiary water source tank in Village of Westfield
- Lawtons water filtration project in the Town of North Collins

Waterfront

- Cattaraugus Creek bank project to reduce erosion and save Prospect Street & Indian Hill Road
- Bridge replacement in Town of New Albion

Question 13: What water quality related projects are under development or would you like to see in your municipality?

This question was asked to determine where partnerships may be made and where resources may be shared. Responses are below.

- West-town of Dunkirk, T. Pomfret, and T. of Portland have plans for upgrades
- Fredonia dam and reservoir are under evaluation/assessment
- Feasibility of connecting the wastewater treatment from the state system on Route 5 up Shortman Road to Town of Ripley system on Route 20 to keep businesses
- Water District #7 phase 2 in Town of Portland
- Need to explore ways to get water to people currently using wells in the Town of Dunkirk
- Trail development from Chautauqua Lake to Lake Erie
- Wastewater treatment plant upgrades needed in Village of Westfield to retain grape processing businesses
- Four inch water line replacement and emergency generator for water substation on Bliss Street in Village of Westfield
- Municipal sewage system in Town of Yorkshire
- Thatcher Brook debris removal and Cattaraugus Creek bank stabilization
- Stream bank protection in New Albion
- Cattaraugus Creek bank erosion prevention near Prospect Street in Town of Perrysburg
- Lackawanna Wastewater Treatment Plant elimination
- Southtowns Advanced Wastewater Treatment Facility upgrades
- LEED standard Fire Hall in East Aurora looking for green infrastructure opportunities
- Dredging equipment for Sturgeon Point Marina and stabilization of the breakwater structure
- Dredging Fern Brook, Muddy Creek, and Delaware Creek mouths to minimize flooding upstream in Town of Evans
- Implementation of water quality projects from the Town of Evans Local Waterfront Revitalization Plan
- Create a Town Stormwater Management Manual for the Town of Evans
- Emergency stream bank/shoreline protection for Cazenovia Creek
- Stream maintenance programs in the Town of Collins
- East Spring Street Road reconstruction in the Village of Williamsville
- Wet Weather Long Term control Plan completion in the Town of Tonawanda
- Deep well public water systems for approximately 150 homes in the Town of Brant
- Town of Concord creating a water district for 6-8 homes without access to potable water
- Town of Orchard Park stormwater drainage improvements
- Green Lake dredging to restore recreational water quality in Town of Orchard Park
- Culvert pipes for Goodrich Road in Town of Clarence
- Relocating the Boston Valley pumping station out of the floodplain

- Upgrading Village of Hamburg water lines and water storage tanks
- Mount Vernon Sewer District sanitary sewer rehabilitation
- Buffalo Sewer Authority Long Term Control plan implementation of grey and green projects

Question 14: What are the projects you would like to see occur in the Lake Erie Watershed? Please share any additional comments.

Some of the comments below were echoed by more than one respondent. They are broken down by Erie County and Chautauqua County. Cattaraugus County did not ask this question.

Erie County

- Springville Dam on Cattaraugus Creek
- Protection of sand dunes and other features at Bennett Beach
- Cleaner water quality for beaches/ Wastewater contamination treatment
- More boating access
- Local streams and fisheries habitat improvements
- Monitoring of tributaries and Lake Erie
- Natural resource protection and restoration
- Waterfront development
- Water quality protection
- Erosion control
- Stream management is the #1 priority
- Improve sewage conveyance systems to prevent raw sewage from overflowing during storm events in Lake Erie and its tributaries
- Removal of Robert Moses Parkway
- Clean-up of brownfields
- Waterways where industry lies
- Rush Creek Interceptor project
- Town-wide drainage study and mapping
- Town Park breakwater & marina construction in Hamburg to provide a safe harbor and boat launch with parking
- Nutrient Management Plan
- Climate change impacts and mapping of coastal areas

Chautauqua County

- Unnecessary engineering fees are inhibiting a project with Town labor and private funding
- Rural communities are in need of business and tourism to improve the tax base and grow the economy
- All municipalities need upgrades to water treatment plants and regional cost-effective projects should be explored to keep costs low for residents and businesses
- Town of Chautauqua Highway Department is steadily improving understanding of and practices to reduce runoff
- Funding is needed for scheduled maintenance of channel, breakwater, and harbor in the Town of Westfield
- Public sewer and water improvements are needed along Lake Erie

- More public access is needed such as public bathing beaches, trails, and picnic areas
- New tourism infrastructure is needed in Barcelona Harbor
- Tighter regulations are needed for Lake Erie Management
- Chadwick Bay regional water line
- Stop sending lengthy surveys

Regional Priorities

The top ten issues that received the highest priority rating throughout the tri-county area in Part I of the survey are listed below. Many of these priorities are mirrored in Part II of the survey as well. All of these issues received a sum total score of over 105 in the survey. There are actually 15 issues listed, as there were several ties. They are listed in their ranked order with *Economic Development* receiving the highest sum of ratings (134) and *Heavy Metals, Organics, Petroleum, Chemicals and Stormwater Runoff* receiving the lowest sum of ratings in this grouping (106).

1. *Economic Development*
2. *Infrastructure Planning/Development/Maintenance*
3. *Maintenance of Bridges and Culverts*
4. *Maintenance of Water Quality Standards*
5. *Flood Prevention/Mitigation and Sewage Discharge to Lake and Tourism Enhancement*
6. *Natural Resource Protection*
7. *Regional and Long-term Planning*
8. *Pathogens and Viruses from Septic Waste*
9. *Debris Build-up/Log Jams and Review & Enforcement of Permits/Regulations and Stream Bank Erosion*
10. *Heavy Metals, Organics, Petroleum, Chemicals and Stormwater Runoff*

Discussion and Next Steps

In some cases there was negative feedback. One municipality was upset at the repetitive surveying. This may have been due to another organization surveying many of the same municipalities in 2012. In another case, a municipality did not feel as though there was anyone qualified within the borders to answer the questions. These comments will be taken into consideration when planning for the 2014 survey.

Because LEWPA plans to survey annually, the next survey should be shorter and more direct to elicit a higher response rate. It should also be consistent throughout the Lake Erie Watershed rather than differing in each county. This will allow for better comparison and consistent regional prioritization. LEWPA will examine the survey and adjust prior to sending it out in 2014.

Education is also a priority. LEWPA will create a municipal presentation to educate officials in the watershed on some of the top concerns to ensure that the link between economic development and water quality issues is explicit. This survey report will also inform a prioritized framework for action for LEWPA in the coming year.