

# Cayuga County Water Quality Management Agency

## **2005 Work Plan**

APPROVED  
February 3, 2005

## 2005 WQMA Membership

**Chair:** Bruce Natale

**Vice-Chair:** David Miller

**Cayuga County Legislature's Environmental Advisors:**

Director of Cayuga County Planning and Economic Development  
Director of Cayuga County Environmental Health  
Park Maintenance Supervisor  
Director of Cayuga County Soil & Water Conservation District  
Cayuga County Solid Waste Management Program Administrator  
Cayuga County Cooperative Extension Director

David Miller  
Eileen O'Connor  
Gary Duckett  
Jim Hotaling  
Bruce Natale  
Kathy Scholl

**Non-County, Local Officials**

Association of Towns  
Association of Villages  
City of Auburn Owasco Lake Watershed Inspector

Vacant  
Vacant  
Anthony DeCaro

**Representatives from Interested Regional, State and Federal Agencies:**

CNY Regional Planning  
NYS DEC Region 7 Forest Practice Board  
NYS DEC Region 7 Water Resources  
USDA Farm Service Agency  
USDA NRCS

Kristy LaManche  
Dick Fox  
Scott Cook  
Jane Cabal  
Vacant

**Representatives from Waterbody Associations in Cayuga County**

Owasco Watershed Lake Association  
Duck Lake  
Cayuga Lake Intermunicipal Organization

Al Kozlowski  
Dale Powell  
Darby Kiley

## **Critical Water Quality Issues of Cayuga County**

The following is a list of the top ten critical water quality issues of Cayuga County as determined by the members of the Cayuga County Water Quality Management Agency (WQMA). This list is based on which issues were discussed at WQMA meetings in 2004 and which issues the WQMA members feel will be critical in 2005.

1. Coliform bacteria in County waterbodies, especially in the Emerson Park Beach area of Owasco Lake
2. Stormwater runoff, erosion and sediment loading
3. Invasive Species
4. Phosphorus loading to Owasco and Cayuga Lakes
5. Owasco Lake's Lake Level
6. Hazardous waste and chemicals
7. Overdevelopment of shorelines
8. Excessive recreational use of water
9. Lack of groundwater data
10. Habitat restoration

## 2005 Work Plan

### Acronyms and Abbreviations

CCE: Cayuga County Cornell Cooperative Extension  
 Cayuga Lake RPP: Cayuga Lake Watershed Restoration and Protection Plan  
 CEMO: Cayuga County Emergency Management Office  
 CLWN: Cayuga Lake Watershed Network  
 CNY RPDB: Central New York Regional Planning and Development Board  
 City: City of Auburn  
 DEC: New York State Department of Environmental Conservation  
 Duck: Duck Lake Association  
 FLOWPA: Finger Lakes Lake Ontario Watershed Protection Alliance  
 Health: Cayuga County Department of Health and Human Service Environmental Health Division  
 Highway: Cayuga County Highway Department  
 IAGT: The Institute for the Application of Geospatial Technology  
 IO: Cayuga Lake Intermunicipal Organization  
 Network: Cayuga Lake Watershed Network  
 NRCS: Natural Resource Conservation Service  
 OWLA: Owasco Watershed Lake Association  
 Parks: Cayuga County Parks and Trails  
 Planning: Cayuga County Department of Planning and Development  
 SWCD: Cayuga County Soil and Water Conservation District  
 Tour: Cayuga County Department of Tourism  
 WQMA: Water Quality Management Agency

### Agriculture

Action	Responsible Organizations	Watershed(s)
Encourage farmer participation in state and federal programs that relate to water quality and issues; and pursue forms of assistance such as continued federal and state grants and cost share programs.	SWCD, NRCS, CCE, Planning, CLWN, IO	All
Conduct Comprehensive Nutrient Management Plans for farms	SWCD	All
Once SWCD staff member is certified as a Nutrient Management Plan Specialist, this staff person will review comprehensive Nutrient Management Plans from consultants to see if plans are adequate	SWCD	All
Complete Agricultural Environmental Management (AEM) Plans for farms.	SWCD	All
Identify best management practices (BMPs) from AEMs and look for assistance to implement and measure the effectiveness of these BMPs.	SWCD	All
Take advantage of new technologies to deal with agricultural waste.	SWCD	All
Encourage farmers to join the Conservation Reserve Program.	SWCD	All
Provide incentives and programs for farmers to install, maintain and manage buffers adjacent to streambanks, lakeshore and other sensitive areas.	SWCD	All
Implement PDR (purchase of development rights) where feasible. CCE will provide educational materials on PDR.	CCE, Planning	All
Provide public education and news articles/columns on agriculture and the environment.	CCE, SWCD, City, CLWN	All

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Present farm, conservationist, and educator of the year awards.	SWCD	All
Continue to develop a program and criteria for providing signs for lake friendly farmers or watershed friendly farmers.	CLWN, IO OWLA, SWCD	Cayuga & Owasco Lakes
Encourage agritourism.	CCE, Planning	All
Encourage towns to change local laws to allow additional business enterprises on farms.	Planning, IO	All
Explore funding options and ways to assist farmers in cleanup after storm events.	Planning	All

**Aquatic Vegetation**

Action	Responsible Organizations	Watershed (s)
Continue existing aquatic vegetation control program.	SWCD	All
Second year of the Weeds Watch Out! education and monitoring program for invasive aquatic plants.	CCE, Network, Planning	All
Search for funding to inventory and map aquatic vegetation in County lakes, compare to historical data, and determine management needs. Publish findings as an educational tool.	Planning	All
Continue aquatic weed control program in Duck Lake including herbicide applications and use of new harvester.	Duck	Duck Lake
Determine water quality, including phosphorus level, in Owasco Lake and the tributaries, and the effect it has on aquatic vegetation. Search for funding.	Planning, OWLA, CCE	Owasco Lake

**Biosolids**

Action	Responsible Organizations	Watershed (s)
Continue to enforce the Watershed Rules and Regulations which state: “No human excreta or sewage shall be deposited or spread upon the surface of the ground at any point on the watershed. Composted sludge, pursuant to a permit issued by an appropriate State or local agency having jurisdiction, if any, shall be allowed.”	City & Health	Owasco Lake

**Boating**

Action	Responsible Organizations	Watershed (s)
Research the “carrying capacity” of boats and jet skis on Owasco Lake and study the level of pollution from motorized crafts.	Planning, OWLA	Owasco Lake

***Chemicals: Yard Garden and Household Chemical Use and Waste Disposal***

Action	Responsible Organizations	Watershed (s)
Continue household hazardous waste collection event offerings.	Planning, City, SWCD, CCE	All
Promote NYSDEC Clean Sweep Events.	Planning, CCE	All
Continue to search for other ways to reduce hazardous material in the County.	Planning, CCE, SWCD	All
Explore ways to make special waste collection services available on a more frequent basis, especially for fuel products.	Planning, CCE	All
Provide information on proper use and disposal of household chemicals; suggested media includes annual water quality reports by water providers, water bill messages, direct mailings, and the WQMA webpage.	Planning, CCE, City	All
Promote pest management practices that reduce pesticide use in the watershed, including integrated pest management and non-toxic pest management.	Planning, CCE	All
Examine ways to change people's attitudes about the "perfect lawn" through education.	Planning, CCE	All
Conduct education programs to help homeowners prevent groundwater contamination; include wells, well maintenance, septic system use, yard waste, composting, etc.	CCE	All

***Collaboration***

Action	Responsible Organizations	Watershed (s)
Continue to provide the Regional Non-point Source Strategy meeting series.	CNY RPDB	All
Work to implement the Cayuga Lake Restoration and Protection Plan as it pertains to Cayuga County. As more specific work plans are developed, the WQMA will re-examine its involvement.	WQMA	Cayuga Lake
Complete the Duck Lake State of the Lake Report and the Duck Lake Watershed Management Plan.	Planning, Duck, SWCD	Duck Lake
Assist the Center for Environmental Information, Inc. as they work on developing the Lake Ontario Coastal Initiative.	Planning	Little Sodus Bay, Lake Ontario

***Education***

Action	Responsible Organizations	Watershed (s)
The Cayuga Co. WQMA should encourage and promote a coordinated approach to public education among its member organizations.	WQMA	All
Develop an on-going educational program on watershed and related issues for schools and school aged children.	CCE	All
Make watershed issues more accessible to citizens by utilizing the internet, direct mailings, and media releases.	CCE, Planning	All
Agencies and organizations that conduct public education programs should utilize the local media to its fullest extent to promote programs, highlight events, and draw larger audiences.	Everyone	All

Develop promotional campaigns that will interest a larger variety of participants in education programs.	Everyone	All
Agencies and organizations that promote water quality should enable trainers and educators to continually develop skills and expertise.	CCE	All
Displays at Emerson Park tied to watershed protection and information from USGS water monitoring station.	Park	All
Provide educational columns for the newspaper on Owasco Lake and its watershed.	OWLA	Owasco Lake
Provide award for leadership and commitment to protect the Cayuga Lake Watershed	Network, IO	Cayuga Lake
Conduct an educational tour.	WQMA	All

**Exotic, Introduced and Invasive Species Management**

Action	Responsible Organizations	Watershed (s)
Continue to participate on CNY Water Chestnut Task Force to assist region in formulating strategies and solutions to water chestnut problems.	CNY RPDB, CCE, Network	All
Second year of the Weeds Watch Out! education and monitoring program for invasive aquatic plants. Volunteer weed watchers will be trained to identify aquatic plants and will conduct monitoring on waterbodies in Cayuga Co.	CCE, Planning, Network	All
Provide educational materials to landowners about how to put in intake pipes and treatment methods for dealing with zebra mussels in intake pipes.	Health	All
Search for funding to initiate a regular inventory and monitoring program for exotic, introduced and invasive species in Owasco lake and watershed.	CCE, Planning	Owasco Lake

**Fish and Wildlife Management**

Action	Responsible Organizations	Watershed (s)
Search for funding to determine water quality, including phosphorus level, dissolved oxygen and chlorophyll, in Owasco Lake and the tributaries and the effect it has on fish and wildlife.	Planning, OWLA	Owasco Lake

**Forestry**

Action	Responsible Organizations	Watershed (s)
Coordinate information and technical services with landowners.	CCE	All
Provide forest landowners with information on what resources & services are available for forest management; information & training on proper forest management practices; and information on such topics such as carbon sequestration & highgrading to encourage landowners to retain existing well managed woodlots.	CCE	All
Encourage development of forest plans.	CCE	All
Encourage owners to apply for cost-sharing forest management programs.	CCE	All

**Fuel and Chemical Storage**

Action	Responsible Organizations	Watershed (s)
Update the County's watershed database with the updated NYSDEC database on bulk petroleum storage facilities.	Planning	All

**Funding Options**

Action	Responsible Organizations	Watershed (s)
Explore full range of funding alternatives; examples include surcharge to users, franchise fees, grants, loans, etc.	Everyone	All

**Hazardous Material Spills and Spill Response**

Action	Responsible Organizations	Watershed (s)
Update the water quality contact list yearly.	Planning, CCE	All
Work with CEMO to improve capabilities to respond to spills.	Planning	All

**Highway Deicing**

Action	Responsible Organizations	Watershed (s)
Conduct a survey of highway departments on salt storage structures and contained mixing areas and where they are needed. Also survey their deicing policies and procedures.	Planning	All
Explore funding options for those that need salt storage structures and contained mixing areas.	Planning, IO	All

**Highway Maintenance**

Action	Responsible Organizations	Watershed (s)
Encourage use of and provide information on best management practices (BMPs) to reduce roadbank erosion.	SWCD, IO	All
Encourage and provide information on timely revegetation of road ditches and banks.	SWCD, IO	All
Encourage use of structural controls of sediments on steep roads, roadbanks and in high flow ditches.	SWCD	All
Increase the use of the Cornell Local Roads Program, Highway School, and LEAPE by highway officials.	SWCD, CCE	All
Provide an annual informational report for highway superintendents and workers.	SWCD	All
Organize local training programs through SWCD and Highway Superintendents Association.	SWCD	All
Examine ways to prevent sediment eroded from plowed fields by wind and water from ending up in the ditches to the lake; especially during heavy rainfalls.	SWCD	All
Examine ways to prevent roadside ditches from deepening and eroding.	SWCD, IO	All
Present the information from the roadside erosion survey to the WQMA.	Planning	Owasco Lake

**Lakeshore Erosion**

Action	Responsible Organizations	Watershed (s)
Promote and distribute existing shoreline erosion control guidebooks and information sheets with specific information on plantings that will help reduce shoreline erosion.	CCE, OWLA	All

**Lake Level**

Action	Responsible Organizations	Watershed (s)
Continue to work with the Army Corps of Engineers at revisiting the Owasco Lake “rule curve.”	WQMA	Owasco Lake
Continue to educate Owasco Lake watershed residents on what to expect in regards to lake level, the hydrologic system, the “rule curve,” about downstream uses of water, and why different people want different lake levels.	City, Planning	Owasco Lake
Encourage local officials who are responsible for Owasco Lake level management to continue working with others in their region to coordinate flood period discharges (i.e. Balance lake impacts, downstream impacts, etc).	City	Owasco Lake
Continue work needed to dredge the South end of Owasco Lake.	SWCD	Owasco Lake
Identify lake level problems at Duck Lake.	Duck	Duck Lake

**Land Use**

Action	Responsible Organizations	Watershed (s)
Educate planning boards about land use issues such as drainage, buffer zones, stormwater runoff, etc.	Planning, IO	All
Provide assistance to towns and villages to design, adopt and/or implement standards and guidelines; provide model ordinances, regulations, standards, and guidelines.	Planning, IO	All
Explore opportunities to protect streambank areas. Use data from streambank assessments and management plans to search for funding.	Planning, IO	All
Conduct a survey of open space areas.	Planning	All
Review and update the webpage directory of zoning provisions and other development regulations of towns and villages.	Planning	All
CNYRPDB & Planning, in conjunction with the Institute for the Application of Geospatial Technology and the Genesee Finger Lakes Regional Planning Council, will evaluate the impacts of future development, urban sprawl and changing land uses on municipalities within the Owasco Lake Watershed and throughout the Finger Lakes region. Technical assistance, staff support and guidance will be provided to municipalities seeking tools and techniques to effectively control the impacts of development, sprawl & changing land uses.	CNY RPDB, Planning	Owasco Lake
Inventory wetlands and open space resources in the Owasco Lake watershed.	Planning	Owasco Lake

**Monitoring**

Action	Responsible Organizations	Watershed (s)
Continue water sampling of Cayuga Lake under Citizens Lake Assessment Program (CSLAP) through FLOWPA funding.	Network, WQMA	Cayuga Lake
Continue work on the monitoring buoy for Owasco Lake with IAGT.	OWLA	Owasco Lake
Continue coliform monitoring of Owasco Lake.	OWLA, Health	Owasco Lake
Continue monitoring of Dutch Hollow Brook and Owasco Inlet utilizing FLOWPA funds.	Planning, SWCD	Owasco Lake
Continue to examine conducting hydrocarbon monitoring in Owasco Lake.	OWLA	Owasco Lake
Continue water sampling including Citizens Lake Assessment Program (CSLAP) through FLOWPA funding.	Duck, Planning	Duck Lake
Monitor phosphorus levels in Duck Lake.	Duck	Duck Lake
Monitor coliform levels in Duck Lake.	Duck	Duck Lake

**Nutrient Management**

Action	Responsible Organizations	Watershed (s)
Encourage the use of nutrient management plans for golf courses, developments, parks, etc.	SWCD	All
Educate the public and developers on how to reduce nutrient introduction to waterbodies.	OWLA, CCE, City, SWCD, CNY RPDB	All
Continue the phosphorus monitoring of tributaries to Owasco and Cayuga Lakes through the P-Project. Identify areas that contribute high external loadings of phosphorus and target areas for education and protection efforts.	CCE	Owasco and Cayuga Lakes
Continue work needed to dredge the South end of Owasco Lake.	SWCD	Owasco Lake

**Private and Municipal Wastewater Treatment**

Action	Responsible Organizations	Watershed (s)
Continue to implement the Cayuga County Sanitary Code and provide information to others as needed.	Health	All
Explore federal or state assistance to replace or upgrade septic systems of people with limited incomes.	Health	All
Encourage the adoption of comprehensive plans that describe the capacity of public facilities and services required to serve new development and discourage growth where adequate facilities and services are not available.	Planning	All
Explore what grants & loans are available for water & waste disposal systems for rural communities.	Planning	All
Explore the possibility of upgrading the Groton Wastewater Treatment Facility. Permit is due for renewal in 2006.	Health, Planning	Owasco Lake
Fair Haven Sewer Project, Village of Fair Haven. Provide requested technical assistance.	Planning	Little Sodus Bay

**Public Access**

Action	Responsible Organizations	Watershed (s)
Encourage low impact activities like hiking, canoeing and fishing instead of motorized use.	Parks, Planning, OWLA	All

**Stormwater and Sediment Control**

Action	Responsible Organizations	Watershed (s)
Continue to work closely with the DEC on the Phase II Stormwater Rules & Regulations. Provide assistance for towns and villages to comply with the Phase II Stormwater Rules and Regulations.	SWCD, Planning, CNY RPDB	All
Continue to conduct education to local decision makers, planning and zoning boards, Code Enforcement Officers, Highway Superintendents, residents, WQMA, and others about the Phase II Stormwater Rules & Regulations & the use of recognized development BMPs to protect water quality.	SWCD, Planning, CNY RPDB	All
As further guidance is provided by the regulatory agencies, examine and/or encourage local governments to create & enforce their own stormwater management and erosion control ordinances.	SWCD, Planning, CNY RPDB	All
Conduct general Phase II construction permit education and outreach for local governments and the general public by providing sample and guidance materials as they become available.	CNY RPDB	All
Continue to conduct stormwater control projects.	SWCD	All
Continue hydroseeding assistance programs for local governments in critical areas, such as road ditches, and promote the program to increase use throughout the watershed.	SWCD	All
Provide model site design guidelines for contractors.	SWCD	All
Encourage use and provide information on structural measures to control sediments and other pollutants from stormwater runoff.	SWCD	All
Examine the use of infiltration trenches, detention ponds, siltation ponds, basins, vegetated swales and filter strips in critical areas and in demonstration projects.	SWCD	All

**Streambanks and Stream Corridor Management**

Action	Responsible Organizations	Watershed (s)
Reevaluate streambank erosion assessments and search for funding for implementation.	SWCD, Planning, IO	All
Search for funding and implement streambank stabilization on severely eroding streams using fluvial geomorphology and other bioengineering methods where feasible.	SWCD	All
Identify funding sources for comprehensive streambank restoration & management programs.	SWCD	All

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Provide incentives and programs for farmers and landowners to install, maintain and manage buffers adjacent to streambanks, lakeshore and other sensitive areas. Find funding opportunities for buffer installation, management and maintenance.	SWCD, NRCS, Planning	All
Promote the use of Best Management Practices (BMPs) such as livestock exclusion from streams and vegetative filter strips.	NRCS, SWCD	All
Continue having staff members of the SWCD and NRCS assist in the preparation of grant and cost share applications to reduce streambank erosion and implement buffering.	SWCD, NRCS	All
Provide model buffer and stream corridor protection ordinances to the municipalities.	Planning	All
Examine debris accumulation in streams and determine whose jurisdiction it is to remove it and have it removed.	Planning	All
Educate landowners on what debris can be removed from streams and how to remove it properly.	Planning, OWLA	All
Conduct tours, put up signs and provide information on demonstration projects for streambank erosion and stream buffering.	SWCD, OWLA	All
Conduct streambank stabilization projects on tributaries to Owasco Lake.	SWCD, Planning	Owasco Lake
Train staff in remedial fluvial geomorphology and conduct pilot projects on tributaries to Owasco Lake, particularly Dutch Hollow Brook and the Inlet.	SWCD	Owasco Lake

**Urban/Community Forestry**

Action	Responsible Organizations	Watershed (s)
Work with New Visions Class to plant trees in Owasco Lake Watershed.	CCE	All
Encourage towns and villages to apply to grant programs for tree planting.	Planning	All
Provide a model town or village tree ordinance.	Planning	All

**Waste Sites**

**Landfills, Inactive Hazardous Waste Sites, Solid Waste Management and Other Waste Sites**

Action	Responsible Organizations	Watershed (s)
The conditions of the seven closed solid waste landfills and the inactive hazardous waste site should be inspected for changing site conditions. Any significant changes should be reported to the DEC.	Planning, Health	All
Discourage open burning and encourage alternatives such as pay by the bag programs for residential solid waste disposal.	Planning, Health	All
Inventory junkyards.	OWLA, City, Planning	All

**Waste Sites**

**Roadside and Illegal Dumping**

Action	Responsible Organizations	Watershed (s)
List all municipal codes and ordinances for roadside and/or illegal dumping.	Planning	All
Provide sample codes or ordinances on roadside and/or illegal dumping to municipalities without them. For those that do, encourage raising fines & increasing prosecution.	Planning	All
Conduct cleanup of Fall Creek.	Network	Cayuga Lake

**Waterborne Illness**

Action	Responsible Organizations	Watershed (s)
Continue to monitor bathing beaches.	Health	All
Continue to provide information to residents using untreated lake water as a drinking water source and encourage them to install some type of treatment system to disinfect their drinking water.	Health	All
Provide educational materials on waterborne illnesses.	Health	All
Use Best Management Practices (BMPs) and Environmental Protection Agency Regulations to reduce contamination from pastures.	SWCD	All
Continue to work on the Emerson Park swale and pond coliform issue.	Health, SWCD, Planning, Park	Owasco Lake
Continue to address the bird problem in Emerson Park and Owasco Lake by trying realistic methods.	Parks	Owasco Lake
Implement a continuous coliform monitoring program in Owasco Lake and the major tributaries.	OWLA, Health, City	Owasco Lake
Continue to create awareness of dangers of spreading unwanted weeds and zebra mussels as well as feeding ducks and geese.	Duck	Duck Lake