

Cayuga County Water Quality Management Agency

2009 Year End Report

Approved
1/7/10

2009 WQMA Membership

Chair: Bruce Natale

Vice-Chair: Gary Duckett

Cayuga County Legislature's Environmental Advisors:

Director of Cayuga County Planning and Economic Development
Director of Cayuga County Environmental Health
Director of Cayuga County Parks and Trails
Director of Cayuga County Soil and Water Conservation District
Cayuga County Solid Waste Management Program Administrator
Cayuga County Cooperative Extension Executive Director

Stephen Lynch
Eileen O'Connor
Gary Duckett
Ron Podolak
Bruce Natale
Doug Ververs

Non-County, Local Officials

Town of Owasco
City of Auburn
Cayuga County Association of Town Supervisors
Cayuga County Association of Villages

Edward Wagner
Bruce Ross
Keith Batman
Harry Hinman

Representatives from Waterbody Associations in Cayuga County

Cayuga Lake Watershed Network
Duck Lake Association
Lake Como Association
Owasco Watershed Lake Association
Tri-County Skaneateles Lake Pure Waters Association

Jim Young
Dale Powell
Barb Harvey
John Corcoran
Bill Hecht

Acronyms and Abbreviations on page 18.

WQMA Major Projects for 2009

1. Revise and follow the process to officially adopt the WQMA By-Laws

- WQMA Ad-Hoc Committee was formed to update the WQMA bylaws. By-Laws were updated and approved by the WQMA on July 9th and approved by the Cayuga County Legislature on August 25, 2009.

2. Update the WQMA Strategy.

- WQMA Ad-Hoc Committee formed in December to update the WQMA Strategy in 2010.

3. Participate in the Owasco Lake Watershed Inspector re-negotiation process.

- On-going. Owasco Watershed Lake Inspection Committee is working on renegotiating the Owasco Lake Watershed Inspector Agreement for 2010 and beyond.

4. Develop templates for stormwater ordinances for Cayuga County municipalities.

- WQMA Stormwater Ad Hoc Group formed in January to examine stormwater issues and develop templates for stormwater ordinances.

5. Develop templates for steep slope ordinances for Cayuga County municipalities.

- Moved to 2010.

WQMA Administration

1. Maintain the WQMA website.

- WQMA website maintained and updated monthly.

2. Correspondence

- Letters to Governor Patterson, Congressman Arcuri, Congressman Maffei, Senator Clinton, and Senator Schumer sent in January regarding WQMA's support of increased funding for water, sewer, and other green infrastructure projects with Federal Stimulus funds.
- Letter to State representatives requesting that they restore FLOWPA funding for SFY2009-2010 to SFY 2008-2009 funding levels.
- Letter of support for the SWCD's request for funds to Congressman Arcuri for FY2010 Federal Appropriation money to purchase equipment to improve and upgrade the aquatic vegetation control harvesting program.
- Letter of support for the City of Auburn's application for an EPA Brownfield Site Assessment Grant which would provide 100% funding for the City to develop an inventory of brownfield sites, prioritize the sites, conduct community involvement activities and perform Phase I and II Environmental Site Assessments on the identified properties.
- Letter to Village of Cayuga Waste Water Treatment Plant offering advice on the upgrade of their plant.
- Letter of support for Seneca County's application, in partnership with Cayuga and Tompkins Counties, for a State Environmental Protection Fund grant to plan for and develop a Cayuga Lake Blueway Trail that will encompass all of the shoreline and lakeside areas of Cayuga Lake in the three Counties and accommodate the needs and interests of canoeists and kayakers. Sept
- Letter of thanks to Senator Nozzolio for funding the Owasco Watershed Network Project.
- Letter of support to site the Finger Lakes Museum Project in Cayuga County.

Finger Lakes Lake Ontario Watershed Protection Alliance (FOLLOWPA) Funded Projects (FY08-09)
As of December 2009, no FOLLOWPA funds have been received by Cayuga County. Only \$18,750 of the \$85,000 is expected anytime soon.

1. Upgrade the Owasco Inlet Monitoring Station to USGS standards.

- USGS upgraded the monitoring station on the Owasco Inlet to USGS standards using FOLLOWPA money from FY2007-2008. This gage station is solar powered and transmits data via satellite. Data is near real time on the USGS website. The funds for operation and maintenance until September 2009 were expected from FOLLOWPA and is still pending.

2. Continue monitoring of Dutch Hollow Brook and Owasco Inlet.

- The monitoring stations on these tributaries monitor level and rainfall. The one on the Owasco Inlet maintained by Cayuga County was decommissioned because of the new USGS monitoring station.
- Samples were collected during rainfall and baseflow events to analyze for total phosphorus, nitrates and total suspended solids. Only five sets of samples were taken from Dutch Hollow Brook and the Owasco Inlet due to lack of funds.

3. Continue water sampling of County Lakes with the Citizens Statewide Lake Assessment Program (CSLAP).

- CSLAP completed in 2009 for one site on Duck Lake and one site on Lake Como. FOLLOWPA funds have not provided to the lake associations at this time.

4. Continue the nutrient monitoring and education program which includes Owasco Lake tributary nitrate and phosphorus monitoring and Duck Lake phosphorus monitoring. Also includes the P-Project phosphorus education program.

- The P-Project education program has continued even with the lack of funds.
 - P-Project website maintained by Planning and CCE.
 - Renee Jensen presented on the 2006-2008 results of the P-Project program to the WQMA in March.
 - GIS Planning staff implemented a computer model that accurately predicted phosphorus runoff from a subbasin of the Owasco Lake Watershed within 16% of field sampled results from the P-Project. Nick Colas and Steve Neratko presented "A GIS Based Approach to Identifying Non-Point Source Areas and Modeling Nutrient Loading in the Owasco Lake Watershed" to the WQMA in March. They will continue to refine the model and apply it to other subbasins and eventually the entire watershed.
 - SWCD has zero phosphorus fertilizer available for purchase. SWCD cost shares this program.
 - Planning and CCE created information sheets and a display on phosphorus free products for Owasco Lake Day.
 - P-Project Environmental Friendly Lawn Care Sessions held at CCE. Free one on one 15 minute sessions to Cayuga and Owasco Lake watershed residents that have questions on lawn care in October.
- No monitoring due to lack of funding.

5. Develop a model citizen stream sampling program.

- Not developed due to lack of funding.

6. Continue to have Cayuga County certified inspectors conduct septic system inspections as required in the Cayuga County Sanitary Code.

- Septic systems required to be inspected in 2009 under the Sanitary Code were those in the Towns of Sempronius, Summerhill, and Throop as well as systems in the Town of Owasco that are outside the Owasco Lake Watershed.
- Work was conducted even though FLOWPA funds have not been released.

7. Continue to remove nuisance and invasive aquatic vegetation by mechanical harvesting.

- SWCD mechanically harvested aquatic vegetation from Cayuga Lake (288 cubic yards), Fair Haven (at least 180 cubic yards), Hoopes Park (6 cubic yards), Lake Como (72 cubic yards), Otter Lake (72 cubic yards) and Owasco Lake (318 cubic yards).
- Work was conducted even though FLOWPA funds have not been released.

8. Conduct education on invasive species county-wide. Conduct hand pulling of water chestnut on Sterling Creek, Cross Lake and other waterbodies in Cayuga County as needed.

- Planning and CCE maintain the “Weeds Watch Out!” website.
- CCE conducted an aquatic invasive species presentation at Sterling Nature Center on June 6th.
- CCE, SWCD, Planning and Parks participated in a water chestnut hand pull on Sterling Creek on August 7th.
- CCE organized a water chestnut hand pull at Cross Lake on August 25th that resulted in sixteen garbage bags full of plants removed from the south end.
- CCE presented on invasive species to the Lake Como Association.
- Work was conducted even though FLOWPA funds have not been released.

9. Educate municipalities on Phase II Stormwater Rules and Regulations and stormwater management.

- Stormwater Training was coordinated by Planning and provided by Ellen Hahn, Stormwater Control Specialist, NYSDEC, to Cayuga County Planning Board members, Town/Village Planning Board members and other interested persons on November 17, 2009.
- Work was conducted even though FLOWPA funds have not been released.

10. Continue work on the Owasco Flats Special Project Fund project “Feasibility Study and Preliminary Cost Benefit Analysis for the Owasco Inlet Channel and Owasco Flats Wetlands Restoration.”

- Final report entitled “Restoration Feasibility Report for the Owasco Inlet and Owasco Flats Restoration Project” released in December. Grant closed out.

11. Miscellaneous

- Letter from WQMA requesting that State representatives restore FLOWPA funding for SFY2009-2010 to SFY 2008-2009 funding levels.
- Michele Wunderlich attended the 2009 Lake Ontario Basin Forum presented by FLOWPA.
- Bruce Natale attended “Techniques for Evaluating Water Resources in the Finger Lakes” cosponsored by the FLI, USGS, and FLOWPA.

Agriculture

1. Assist in the development and review of Comprehensive Nutrient Management Plans (CNMP) and Agricultural Environmental Management (AEM) Plans for farms.
 - SWCD recently completed total station surveys at the farmsteads of one dairy farm and one beef farm. These surveys will be used for planning best management practices to address issues such as barnyard runoff, silos, milkhouse waste water, manure storage, and mortality composting. These farmstead plans are part of larger CNMPs being developed for these farms. Other components of these CNMP's were completed over the summer, including the evaluation of cropland, soil samples, manure samples, and manure spreader calibrations.
 - SWCD developed a CNMP for a farm in the Owasco Lake Watershed, and is updating CNMPs for a farm in the Seneca River watershed, a farm in the Sterling Creek watershed and farm in the Cayuga Lake watershed.
 - SWCD held their Annual AEM Awards Luncheon in October. SWCD recognized four local farms that have displayed exemplary environmental stewardship and these award recipients will have AEM signs placed in front of their farm headquarters. These farms are Gulliver Farms, Birdsong Farm, Oakwood Dairy and Aurora Ridge Dairy. Three of the farms are in the Cayuga Lake Watershed and one farm is in the Owasco Lake Watershed. All have CNMPs.
 - SWCD hosted an AEM Farm Tour for the Weedsport High School Envirothon Team in October.
 - SWCD and the Owasco Lake Watershed Inspector completed 2 Tier I and II AEMs at farms in the Owasco Lake Watershed.

2. **Promote and assist in the implementation of best management practices (BMPs).**
 - SWCD installed a roof water management structure to prevent water from entering a barnyard, and a barn footer drain to collect subsurface water from entering barn on a farm in the Owasco Lake Watershed.
 - SWCD and Owasco Lake Inspector worked with a farmer to improve pastures and barnyard and keep animals out of a tributary to Owasco Lake.
 - SWCD installed BMPs on farms using Environmental Quality Improvement Program (WQIP) funds.
 - SWCD installed an animal composting facility.

3. **Encourage and assist farmers in participating in state and federal programs that relate to water quality and issues. Programs include PDR (purchase of development rights), Conservation Reserve Program (CRP), Conservation Reserve Enhancement Program (CREP), and GrazeNY.**
 - SWCD received New York State Agricultural Non-Point Source Abatement and Control Program Round 15 grants:
 - \$294,170 approved for seven farms in the Owasco Lake Watershed for barnyard runoff, barnyard and milkhouse waste system, grassed waterway, solid manure stacking pad, temporary manure storage, and heavy use area for ag silage bag storage.
 - Planning worked with American Farmland Trust and the Town of Brutus to develop the Town of Brutus Agriculture & Farmland Protection Plan.
 - Planning worked with the New York Agricultural Land Trust (NYALT) on the County's Farmland Protection Program which added two farms and 1287 acres to its portfolio of permanently protected agricultural lands.
 - Geoff Milz from Planning is working as the project consultant to the Town of Cato as they develop an Agriculture & Farmland Protection Plan. Brian Aldrich of CCE is providing technical assistance to serve as match on the Cato Ag & FPP project.

- SWCD performs conservation mowing for several State and Federal Program participating land-owners.
- 4. Assist with hazardous waste and pesticide collection days for farms as funding is available.**
 - Solid Waste and CCE assisted NYS DEC in promoting their second regional agricultural chemical Clean Sweep Program.
 - 5. Continue with the development and use of technologies to deal with agricultural waste.**
 - SWCD received \$3.2 million dollars from the American Recovery and Reinvestment Act of 2009. The funds will be used to assist the SWCD in building the regional digester/bioenergy facility.
 - 6. Continue the Lake Friendly Farms program.**
 - The 2009 winner of the Lake Friendly Farms award was Sheldrake Point Vineyard in Seneca County. It was recognized for their state approved sustainable farming practices that minimize pollutant impacts to the lake.

Education

- 1. Provide education on water, water quality, watersheds, agriculture and related issues to schools, children and adults; including use of Project WET.**
 - Eco-Talk article in *The Citizen* by Jessica Miles, Owasco Lake Watershed Inspector, on October 11th entitled “Slowing Owasco Lake’s aging process.”
 - Eco-Talk article in *The Citizen* by Irene Holak of CCE, on March 29th entitled “Events blossom in spring season.”
 - Eco-Talk article in *The Citizen* by Irene Holak of CCE, on July 12th entitled “Less water, more savings.”
 - Eco-Talk article in *The Citizen* by Jessica Miles, Owasco Lake Watershed Inspector, on November 16th entitled “Distinct features mark lakes.”
 - Renee Jensen, CCE, taught a two day mini-course on water quality to fifth to eighth graders in January.
 - Owasco Lake Watershed Inspector sent the video “The Beauty and the Beast: The Tale of Two Lakes” along with a letter to elected officials of Towns and Villages within the Owasco Lake watershed. Michele Wunderlich sent it to the elected officials of Towns and Villages in Cayuga County outside of the Owasco Lake watershed.
 - WQMA and OWLA co-sponsored the Owasco Lake Day at Emerson Park in July. WQMA’s display at Owasco Lake Day included information on the Phase II Stormwater Rules and Regulations and aquatic weeds, as well as the flyers “Top 10 things to do to protect Owasco Lake”, “What can I do in my yard to protect Owasco Lake?” and “What can I do to protect Owasco Lake?”
 - Bruce Natale, Chairman of the WQMA, presented “Some perspectives on 2009 Owasco Lake Water Quality Concerns” at the August meeting.
 - CCE and SWCD participated in Conservation Field Days which was held September 22nd and 23rd at Emerson Park. Over 500 sixth grade students from Union Springs, Red Creek, Southern Cayuga, SS Peter and Paul, Cato-Meridian, St. Joseph, Port Byron and Moravia schools attended. Stations covered a wide variety of topics, from water conservation to forestry to conservation laws.
 - CCE held two workshops on rain barrels and one workshop on rain gardens to the public.
 - Planning and CCE provided the Lake Como Association with flyers “What can I do in my yard to protect Lake Como?” and “What can I do to protect Lake Como?”

Exotic, Invasive, Introduced and Nuisance Species Management

- 1. Continue existing County aquatic vegetation control program utilizing FLOWPA and County funds.**
 - The County continued its existing aquatic vegetation control program even though FLOWPA funds were not released in 2009.
 - SWCD mechanically harvested aquatic vegetation from Cayuga Lake (288 cubic yards), Fair Haven (at least 180 cubic yards), Hoopes Park (6 cubic yards), Lake Como (72 cubic yards), Otter Lake (72 cubic yards) and Owasco Lake (318 cubic yards).
 - SWCD met with Bob Johnson from Cornell University to discuss their aquatic weed harvesting program.
 - CCE, SWCD, Planning and Parks participated in a water chestnut hand pull on Sterling Creek on August 7th.
 - CCE organized a volunteer water chestnut pull at Cross Lake on August 25th that resulted in the removal of sixteen garbage bags full of plants from the south end.

- 2. Continue aquatic weed control program in Duck Lake including herbicide applications and use of harvester.**
 - Duck Lake Association applied herbicide to 49 acres to control milfoil.

- 3. Monitor, educate and attempt control of exotic, introduced and invasive species before they become established. Includes maintaining the Weeds Watch Out! Program website.**
 - Eco-Talk article in *The Citizen* by Jessica Miles, Owasco Lake Watershed Inspector, on January 18th entitled “Zebra mussels: the good, the bad.”
 - “Weeds and Other Aquatic Plants: The Good, the Bad and the Ugly” workshop co-sponsored by CLWN and IO on March 28th.
 - The FLOWPA Special Projects Fund project “Weed Management Education for Lakeshore Property Owners in the Central Finger Lakes” was completed by CLWN and WQMA in July. The booklet “Aquatic Weeds: Necessity and Nuisance,” was sent to the Schuyler, Seneca and Tompkins County Water Quality Coordinating Committees, the Cayuga County WQMA and Onondaga County Council on Environmental Health. An electronic version of the publication was posted on www.cayugalake.org and co.cayuga.ny.us/wqma.
 - Marion Balyszak, FLI, presented "Aquatic Plants in the Finger Lakes" to the WQMA in July. She discussed the FLI's "Managing Invasive European Frogbit through Research and Education in New York's Great Lakes Basin" program. She also discussed the macrophyte surveys conducted by Bin Zhu and others in the Finger Lakes.
 - SWCD and the Owasco Lake Watershed Inspector scouted Owasco Lake for native and aquatic plant dispersal through the lake.

- 4. Participate in the CNY Water Chestnut Task Force and Finger Lakes Partnership for Regional Invasive Species Management (PRISM).**
 - Not completed.

- 5. Miscellaneous**
 - WQMA wrote a letter of support for the SWCD's request for funds to Congressman Arcuri for FY2010 Federal Appropriation money to purchase equipment to improve and upgrade the aquatic vegetation control harvesting program.
 - SWCD is mapping and eradicating giant hogweed to contain the spread of this nuisance and dangerous plant.

- WQMA discussed zebra mussels and the effects they may have on phosphorus levels in April.
- Lake Como Association purchased a weed harvester.

Forestry

1. Provide forestry information and technical services for landowners.

- CCE educator assisted in the coordination of the Cayuga County Master Forester Owner Volunteer landowner visits and kept volunteers current with on-going forestry information.
- SWCD held its annual tree and shrub sale in April.

2. Provide the Trade-A-Tree Program.

- The Trade-A-Tree Program allows residents to bring their Christmas trees to the Natural Resource Center where SWCD chips them into mulch which is used for public works projects and is available to the public. In return, residents receive a voucher for a free tree. Event is funded by the SWMO and promoted by CCE.
- Eco-Talk article in *The Citizen* by Irene Holak of CCE on December 6th entitled "Recycle tree after holiday."

Funding

1. Search for funding for the actions listed in this work plan.

- Cayuga County WQMA wrote a letter of support for the SWCD's request for funds to Congressman Arcuri for FY2010 Federal Appropriation money to purchase equipment to improve and upgrade the aquatic vegetation control (AVC) harvesting program.
- SWCD will receive \$3.2 million in funding under the American Recovery and Reinvestment Act of 2009 to assist the SWCD in building a regional digester/bioenergy facility.
- WQMA approved allowing the Chairman of the WQMA to submit a 2009 Water Quality Improvement Projects (WQIP) Round 10 Application to the NYSDEC for the WQMA to develop two annual reports detailing critical water quality issues, priority projects and programs in need of support, and a summary of the WQMA activities and its individual members. These reports would be presented to the Cayuga County Legislature.
- Owasco Lake Watershed Inspector and SWCD submitted WQIP grant applications for two sites on firelanes and one on the Owasco Inlet. The Owasco Inlet application was for \$50,000 for fluvial geomorphology.
- Planning, SWCD and Owasco Lake Watershed Inspector applied for a grant from the Emerson Foundation which was funded. Work funded included metal "Welcome to the Owasco Lake Watershed" road signs, educational yard signs and funding for two seasonal positions.

Hazardous Materials

1. Provide opportunities to reduce hazardous material in the County including household hazardous waste, tires, electronics and propane tank collections.

- SWMO, Planning, CCE and SWCD provided opportunities to reduce hazardous materials in the County:
 - Earth Week Event held on May 30th. Event recycled approximately 50,000 pounds of electronics including 366 televisions and 213 CRTs as well as 88 freon appliances and 470 propane grill tanks.
 - Tire Event held on June 13th. Recycled approximately 3,400 tires and 56 pounds of lead.
 - Household Hazardous Waste Event held on October 3rd. Collected over 38,000 pounds of chemicals, 292 televisions, 148 CRTs, and 109 propane grill tanks.

- America Recycles Day hosted by the City of Auburn was held on November 14th. This event had 268 cars and recycled over 24,700 pounds of electronics and 178 televisions.
- SWMO coordinated two recycling events for obsolete electronics from downtown County agencies.
- SWMO coordinated a HHW collection event for County buildings.
- CCE and Planning participate in the RecycleFirst cellular phone recycling program and printer cartridge recycling program. RecycleFirst provides free recycling plus CCE receives a small deposit for solid waste and watershed protection projects. The cartridge recycling collection boxes are located in the County.
- Seneca County SWCD was awarded \$12,500 through a FLOWPA special project fund grant to conduct the “Secondary Fuel Containment for Agricultural Producers in Seneca and Cayuga Counties Project.”
- Cayuga County and the City of Auburn are looking at recycling especially in County and City buildings.

2. Provide information and education on reducing the use of hazardous materials, and the proper use and disposal of household chemicals and other hazardous material.

- SWMO, CCE and Planning maintain and update the SWMO website which includes information on the proper use and disposal of household chemicals and other hazardous materials.
- SWMO, CCE and Planning provide information in litter bags distributed during collection events.
- Eco-Talk article in *The Citizen* by Renee Jensen of CCE on January 4th entitled “Cleaning Up After Busy Holidays.”
- Eco-Talk article in *The Citizen* by Renee Jensen of CCE on March 22nd entitled “County’s Upcoming Recycling Events.”
- Eco-Talk article in *The Citizen* by Irene Holak of CCE on April 13th entitled “Spring Cleaning Leads to Recycling.”
- Eco-Talk article in *The Citizen* by Irene Holak of CCE on August 9th entitled “Hazardous Products Collection Signup Due.”
- Eco-Talk article in *The Citizen* by Renee Jensen of CCE on September 27th entitled “Hazardous Waste Cleanup Day Set.”
- Eco-Talk article in *The Citizen* by Irene Holak of CCE on October 26th entitled “America Recycles Day Nov. 14.”
- After discussing at WQMA and a Finger Lakes Institute’s report on the environmental effects of flares, OWLA decided to sell LED lights for their “ring of fire.”
- Education to WQMA members about what to do with expired drugs.

3. Provide education on petroleum spill prevention and what to do in the event of a spill or a leak, especially in regards to boats.

- CCE has information on this subject.
- Eco-Talk article in *The Citizen* by Jessica Miles, Owasco Lake Watershed Inspector entitled “Eco-Friendly Tips for Boaters.”

4. Miscellaneous

- **Wood Recycling:** SWCD promotes a wood waste recycling program to minimize the amount of wood material entering landfills or being illegally burned. SWCD works with numerous municipalities through the use of intergovernmental agreements, to provide the needed tub

grinding services. As a result of having diverse pieces of equipment available, the SWCD program can meet a variety of needs for the municipality.

- Planning and the Owasco Lake Watershed Inspector worked with the Town of Locke and NYSDEC to determine who is dumping waste on an abandoned lot.

Highway Deicing

- 1. Provide assistance to those municipalities that need salt storage structures and contained mixing areas.**
 - Not completed.
- 2. Educate highway departments on deicers.**
 - Not completed.

Highway Maintenance

- 1. Continue hydroseeding assistance programs, use of structural controls, and other methods to reduce roadbank erosion and other issues caused by highways.**
 - SWCD has hydroseeding equipment that can be utilized by local municipalities and highway departments. Some projects include:
 - Hydroseeding at Camp Columbus.
 - Hydroseeding Route 38 as ditch work was completed by NYSDOT.
 - Hydroseeding Rockefeller Road for the Cayuga County Highway Department.
 - Hydroseeding tributary work on Sucker Brook.
 - SWCD finished a ditch stabilization project in the Town of Niles in May.
 - SWCD and Owasco Lake Watershed Inspector used a gps to map sites in the Cayuga County portion of the Owasco Lake Watershed that needed hydroseeding. The Town of Owasco used this information to hydroseed those ditches.
- 2. Provide bi-annual verbal report to the Cayuga County Highway Superintendents Association.**
 - SWCD staff attended Cayuga County Highway meetings and gave verbal reports to the Highway Superintendents.
- 3. Provide education to Highway Departments on stormwater issues and who to call if they find a problem.**
 - Not completed.

Land Use

- 1. Educate planning boards about land use issues that affect water quality such as drainage, buffer zones, stormwater runoff, PDR, etc.**
 - Planning organized a stormwater training program. Ellen Hahn, Stormwater Control Specialist, NYSDEC, provided training on stormwater to Cayuga County Planning Board members, Town/Village Planning Board members and other interested persons on November 17th.
- 2. Provide assistance to towns and villages to design, adopt and/or implement standards and guidelines; provide model ordinances, regulations, standards, and guidelines that protect water quality.**
 - Planning presented information on comprehensive planning to the Town of Summerhill.

3. Develop comprehensive plans for County municipalities.

- Planning is working with the Town of Sterling and Village of Fair Haven on the Fair Haven/Sterling Comprehensive Plan.
- Planning assisted in the development of the Village of Meridian Comprehensive Plan which was adopted in the summer.

4. Miscellaneous

- Planning assisted the American Farmland Trust and the Town of Brutus in the development of the Town of Brutus Agriculture & Farmland Protection Plan.
- Planning is working with the Town of Cato as they develop and adopt a Municipal Agriculture and Farmland Protection Plan.

Monitoring

1. Continue water sampling of County Lakes with the Citizens Statewide Lake Assessment Program (CSLAP).

- CSLAP completed in 2009 for one site on Duck Lake and one site on Lake Como. FLOWPA funds have not provided to the lake associations at this time.

2. Upgrade the Owasco Inlet Monitoring Station to USGS standards.

- USGS upgraded the monitoring station on the Owasco Inlet to USGS standards using FLOWPA money from FY2007-2008. This gage station is solar powered and transmits data via satellite. Data is near real time on the USGS website. The funds for operation and maintenance until September 2009 was expected from FLOWPA and is still pending.

3. Continue monitoring of Dutch Hollow Brook and Owasco Inlet.

- The monitoring stations on these tributaries monitor level and rainfall. The one on the Owasco Inlet maintained by Cayuga County was decommissioned because of the new USGS monitoring station.
- Samples were collected during rainfall and baseflow events to analyze for total phosphorus, nitrates and total suspended solids. Only five sets of samples were taken from Dutch Hollow Brook and the Owasco Inlet due to lack of funds.

4. Continue Owasco Lake tributary nitrate and phosphorus monitoring and Duck Lake phosphorus monitoring.

- No monitoring due to lack of FLOWPA funding.

5. Continue work on the monitoring buoy for Owasco Lake with IAGT.

- IAGT, OWLA and WQMA looked for funding for 2009 for the buoy and were unsuccessful.

6. Continue coliform monitoring of public bathing beaches.

- Health continued coliform monitoring of public bathing beaches located on Cayuga and Owasco Lakes.

7. Continue coliform monitoring of County lakes.

- The Duck Lake Association tested Duck Lake for coliform.
- The City of Auburn, OWLA, SWCD and the Owasco Lake Watershed Inspector participate in the monitoring of sites on Owasco Lake for coliform.

8. Miscellaneous

- John Halfman presented Tara Curtin's sediment record research and his results from sampling in Owasco Lake to the WQMA.
- Duck Lake Association is trying to determine areas in Duck Lake that have springs so they can be tested in the future.
- FLI received a two year grant for K-12 stream monitoring program and one of the sites will be in Cayuga County.
- OWLA contracted with Dr. Halfman to conduct stream sampling in the Fall of 2009 and Spring of 2010.

Nutrient Management

1. Provide education on nutrient management and reduction with the P-Project education program and website, as well as other educational materials.

- P-Project Education Program
 - P-Project website maintained by Planning and CCE.
 - SWCD has zero phosphorus fertilizer available for purchase. SWCD cost shares this program.
 - CCE has a travelling display and educational brochure on watershed friendly lawn care.
 - Renee Jensen presented P-Project results from sampling tributaries to Owasco Lake for phosphorus and nitrates during storm events from 2006-2008.
 - GIS Planning staff implemented a computer model that accurately predicted phosphorus runoff from a subbasin of the Owasco Lake Watershed within 16% of field sampled results from the P-Project. Nick Colas and Steve Neratko presented "A GIS Based Approach to Identifying Non-Point Source Areas and Modeling Nutrient Loading in the Owasco Lake Watershed" to the WQMA in March. They will continue to refine the model and apply it to other subbasins and eventually the entire watershed.
 - Planning and CCE created information sheets on phosphorus free products for Owasco Lake Day. Provided similar information sheets to the Lake Como Association.
 - P-Project Environmental Friendly Lawn Care Sessions held at CCE. Free one on one 15 minute sessions to Cayuga and Owasco Lake watershed residents that have questions on lawn care in October.
- Eco-Talk article in *The Citizen* by Jessica Miles, Owasco Lake Watershed Inspector, on May 17th entitled "Natural alternatives to perfect green lawns."
- Eco-Talk article in *The Citizen* by Renee Jensen of CCE, on August 24th entitled "Backyard compost operation is easy to do."
- Eco-Talk article in *The Citizen* by Renee Jensen of CCE, on August 24th entitled "Healthy lawn impacts grass."
- CCE held a nutrient management class in January.
- CCE held a rainbarrel and rain garden workshop on August 19th. Barrels to construct rainbarrels were available for purchase at CCE.
- The SWMO worked with Sterling Nature Center and CCE on a revolving fund to purchase compost bins for sale to homeowners. Black enclosed composting are available for purchase at CCE.
- Sterling Nature Center held a composting workshop on June 13th. CCE held composting workshops on August 13th, August 27th and October 24th. These workshops teach participants how to properly compost yard and food waste. It also provided the opportunity to for them to purchase a composting bin.
- CCE held composting workshops to high schoolers on Dec. 4th.

- CCE display at TomatoFest on lawn care and Master Gardeners.
2. **Encourage the use of and assist in the development of nutrient management plans for golf courses, developments, parks, etc.**
 - Not completed.

Private and Municipal Wastewater Treatment

1. **Continue to implement the Cayuga County Sanitary Code and provide information to others as needed.**
 - Septic systems required to be inspected in 2009 under the Sanitary Code were those in the Towns of Sempronius, Summerhill, and Throop as well as systems in the Town of Owasco that are outside the Owasco Lake Watershed.
 - The Owasco Lake Watershed Inspector and Health worked together on septic system investigations in the Owasco Lake watershed. There were nine investigations with three failures at residences and one failure at a business.
 - The Health Department reviews and approves all plans for new and repaired septic systems in Cayuga County.
 - The Health Department works with residents to have failing septic systems repaired or replaced throughout the County.
2. **Provide input to the NYSDEC regarding the pending upgrade of the Groton Wastewater Treatment Plant and the development of Groton's new SPDES permit.**
 - WQMA followed the progress to release the permit for the Groton Waste Water Treatment Plant. Permit was issued in March. No comments necessary as of yet.
 - Health and Planning track data from the Groton Waste Water Treatment Plant.
 - OWLA representatives attended Groton Town Board Meetings.
3. **Provide education on proper septic system and holding tank use and maintenance.**
 - Health provides septic system maintenance folders/information to homeowners that install new septic systems.
4. **Miscellaneous**
 - SWCD worked with the Town of Niles Highway Department to install a septic system at their new garage.
 - Health sent letters to Code Enforcement Officers regarding Cayuga County septic system installation procedures.

Solid Waste Issues

1. **Provide education on solid waste issues.**
 - Eco-Talk article in *The Citizen* by Irene Holak of CCE on May 10th entitled "New law governs plastic bag disposal."
2. **Conduct cleanup activities in the County.**
 - SWMO, CCE and Planning held an Earth Day cleanup event at Aqueduct Park in Weedsport on April 18th. Article in *The Citizen* on April 19th entitled "Canal Cleaners."
 - Parks held cleanup events at Sterling Nature Center in spring and fall.

Stormwater and Sediment Control

1. Provide education and assistance on the Phase II Stormwater Rules & Regulations.

- Planning provides information upon request and maintains a website on stormwater.
- WQMA Stormwater Ad Hoc Group formed in January to examine stormwater issues and develop a template for stormwater.
- The WQMA Stormwater Ad Hoc Group met with the Supervisor and Code Enforcement Officer of Owasco to discuss how the Town of Owasco handles stormwater.
- Stormwater Training was organized by Planning and provided by Ellen Hahn, Stormwater Control Specialist, NYSDEC, to Cayuga County Planning Board members, Town/Village Planning Board members and other interested persons on November 17th.
- WQMA display at Owasco Lake Day included information on the Phase II Stormwater Rules and Regulations.

2. Provide information and education on methods and ways to reduce the quantity and improve the quality of stormwater.

- Eco-Talk article in *The Citizen* by Jessica Miles, Owasco Lake Watershed Inspector, on April 27th entitled “Sediment common water pollutant.”
- Eco-Talk article in *The Citizen* by Jessica Miles, Owasco Lake Watershed Inspector, on July 19th entitled “Hard surfaces pollution culprits.”
- Eco-Talk article in *The Citizen* by Jessica Miles, Owasco Lake Watershed Inspector, on August 16th entitled “Keep track of vehicle pollution.”
- Basic stormwater materials were developed as part of CNY RPDB’s ongoing MS4 public education program. They were sent by CNY RPDB to the City of Auburn, towns and villages, public libraries and school districts in Cayuga County. Planning was a program supporter.

3. Continue the Cayuga County Stormwater Management Projects Inspection and Monitoring Program (use of hydrolab).

- Not completed.

4. Assist the NYSDEC with their inspection program.

- SWCD contracts with NYSDEC to help enforce the Phase II Stormwater Rules and Regulations. SWCD has a Certified Professional Erosion and Sediment Control (CPESC) to conduct site inspections upon request of the NYSDEC.

5. Miscellaneous

- The Cayuga County SWCD completed portions of the site preparation work that needed to be done as part of the Cayuga County Mental Health Facility Restoration and Addition Project.
- SWCD installed a retention basin downstream of Dickman Farms.
- SWCD held an Erosion and Sediment Control Workshop for construction site contractors and operators in May.
- SWCD conducted erosion and sediment control work at Market Street Park.

Streambank, Lakeshore and Stream Corridor Management

1. Conduct streambank stabilization work on tributary/tributaries to Owasco Lake and other waterbodies in Cayuga County.

- SWCD completed two streambank projects: one at Casowasco and one on Dutch Hollow Brook.
- Completed streambank restoration and armoring of Dutch Hollow Brook in the Town of Niles.

- SWCD applied for permits for stream work. Five sites in the Owasco Lake Watershed and three others elsewhere in the County.
2. **Continue to participate in the future work and management of the Owasco Flats and Owasco Inlet area.**
 - The FLOWPA Special Project Fund project “Feasibility Study and Preliminary Cost Benefit Analysis for the Owasco Inlet Channel and Owasco Flats Wetlands Restoration” completed with the final report entitled “Feasibility Study and Preliminary Benefit/Cost Analysis for the Owasco Inlet Channel and Owasco Flats Wetland Restoration” released in December.
 3. **Provide education and information for farmers and landowners about the importance of buffers adjacent to streambanks, lakeshore and other sensitive areas.**
 - Planning and CCE maintain the “Green Thumbs for Blue Water: Landscaping for Healthy Streams and Lakes” website.

Waterborne Illness

1. **Continue to enforce the Owasco Lake Watershed Rules and Regulations.**
 - Health and the Owasco Lake Watershed Inspector continue to enforce the Owasco Lake Watershed Rules and Regulations.
 - Owasco Lake Watershed Inspector and Health met with the Tompkins County Board of Health in January regarding implementation of the Owasco Lake Watershed Rules and Regulations in Tompkins County.
2. **Continue coliform monitoring of public bathing beaches.**
 - Health staff sampled all permitted bathing beaches during the summer.
3. **Provide information as requested to residents using untreated lake water as a drinking water source and encourage them to install some type of treatment system to disinfect and filter their drinking water. Provide educational materials on waterborne illnesses.**
 - Health continues to provide information at the request of residents using untreated lake water as a drinking water source and encourages them to install some type of treatment system to disinfect and filter their drinking water.
4. **The Owasco Lake Watershed Inspector will make a recommendation on whether to continue the geese harassment program at Emerson Park. Parks is exploring a nuisance permit from the NYSDEC.**
 - Not completed.

Miscellaneous Owasco Lake Work

- OWLA provided \$2,000 in funding for a kiosk for the Owasco Flats area.
- WQMA representative participated on the Owasco Lake Watershed Inspection Committee.
- WQMA and OWLA sponsored the 2nd annual Owasco Lake Day. Bruce Natale, Chairman of the WQMA discussed work conducted by the WQMA and member agencies (including Cayuga County agencies and the City of Auburn), as well as an update on the Groton Wastewater Treatment Plant, Owasco Flats and how people can reduce sources of phosphorus to the lake.
- Planning and Owasco Lake Watershed Inspector working on re-mapping fire lane roads around Owasco Lake.

- David Carr from IAGT presented the results of Barry Evans computer based simulation of loads and water quality responses within the Owasco Lake watershed. Received a federal grant to model the Owasco Lake Watershed.
- IAGT received funding from New York State for the Owasco Watershed Network Project. Members of the WQMA are participating as a steering committee for this project.

Miscellaneous Work

- **Cayuga County Environmental Audit:** In the second year of a three year environmental compliance project, Planning coordinated the cleaning and pulling of five out-of-service petroleum storage tanks and one abandoned underground piping system this year. Planning is working on a rifle range lead management plan and Emerson Park and County House Road Complex facility reports.
- WQMA members attended public meetings in Auburn regarding three coal gas manufacturing plant sites in Auburn that were to undergo remediation for contaminated soil.
- Health researched issue of the Ithaca Area Wastewater Treatment Plant possibly accepting wastewater from the alkaline hydrolysis of medical waste and animal remains from the Cornell College of Veterinary Medicine digester.
- Renewable energy forum held at CCE on April 25th.
- VaVa Bloom display CCE.
- Butterfly garden constructed in Hoopes Park on May 2 by CCE and schoolchildren.
- SWCD provides barley rolls for mosquito control in ponds.
- CCE Ag staff is providing technical assistance to serve as match on municipal Ag & FPP projects. CCE is seeking to have these efforts coordinated with County Planning.
- FLI presented information on their programs to the Cayuga County Association of Villages.
- CNYRPDB held a conference “2009 Lake Management Conference: Options for Central New York Lakes” in September.
- Stephen Lewandowski presented on the Lake Ontario Coastal Initiative.
- WQMA discussions on hydrofracking and Marcellus shale gas drilling.
- SWMO provided information on the NYSDEC burning ban.
- Eco-Talk article in *The Citizen* by Renee Jensen of CCE on December 14th entitled “Answers to some burning questions.”

Acronyms and Abbreviations

CCE: Cayuga County Cornell Cooperative Extension
CLWN: Cayuga Lake Watershed Network
CNY RPDB: Central New York Regional Planning and Development Board
City: City of Auburn
Duck: Duck Lake Association
FOLLOWPA: Finger Lakes Lake Ontario Watershed Protection Alliance
FLI: Finger Lakes Institute
Health: Cayuga County Department of Health and Human Services Environmental Health Division
Highway: Cayuga County Highway Department
IAGT: The Institute for the Application of Geospatial Technology
IO: Cayuga Lake Watershed Intermunicipal Organization
NYSDEC: New York State Department of Environmental Conservation
OWLA: Owasco Watershed Lake Association
OLWIP: Owasco Lake Watershed Inspection Program
Parks: Cayuga County Parks and Trails Commission
Planning: Cayuga County Department of Planning and Economic Development
SWCD: Cayuga County Soil and Water Conservation District
SWMO: Cayuga County Solid Waste Management Office
USGS: United States Geologic Survey
WQMA: Water Quality Management Agency