

# Tompkins County Water Resources Council

## 2012 ANNUAL REPORT



Frank P. Proto, Chairman  
Marjory Rinaldo-Lee, First Vice Chair  
R. Barry Goodrich, Second Vice Chair

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### INTRODUCTION TO THE WATER RESOURCES COUNCIL

The Tompkins County Water Resources Council (WRC) advises the Tompkins County Legislature on matters related to water resources management and planning, and is charged with identifying problems, proposing priorities, and promoting the coordination of activities in the management and protection of the County's water resources. The WRC provides a public forum for local communities and stakeholder groups to address and discuss their water resources concerns, and it is the intent of the group to coordinate the water resources-related efforts of local governments, public and private institutions, and agencies and organizations throughout the County.

The WRC also serves as the County's water quality coordinating committee, responsible for the development of the Tompkins County Water Quality Strategy (WQS), which is intended to help prioritize local water resources issues and concerns and identify strategies to address these concerns. The strategies are incorporated into the WRC's bi-annual workplan, which is developed in conformity with the WQS, to help guide the activities of the WRC that are achieved through a number of standing and special committees. WRC membership consists of 21 voting members, who are appointed by the County Legislature, representing various water-related interests and six non-voting members from relevant Federal and State agencies. We also welcome Associate Members, who have committee-level voting rights.

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## 2012 Membership Roster

### Appointed WRC Members

*Terms that expired at end of 2012:*

#### **At-Large**

Mary Shelley

#### **Municipal Government**

Ed Bugliosi (Town of Dryden)

#### **Tompkins County Planning Dept.**

Joan Jurkowich

#### **Watershed Organizations**

Barry Goodrich

#### **Business & Industry**

Rick Manning

#### **Environment**

Marjory Rinaldo-Lee

#### **At-Large**

Frank Proto

*Terms that will expire at end of 2013:*

#### **County Legislature**

vacant

#### **Municipal Government**

Lynn Leopold (Village of Lansing)

#### **Recreation**

Dan Karig

#### **At-Large**

Darby Kiley

#### **Water Purveyor**

Roxy Johnston

#### **Soil & Water Conservation District**

Craig Schutt

*Terms that will expire at end of 2014:*

#### **County Health**

Liz Cameron

#### **Agriculture**

A. Fay Benson

#### **At-Large**

Elaine Quaroni

#### **At-Large**

Gregg McConnell

#### **Municipal Government**

Bill George (Town of Ulysses)

#### **Environmental Management Council**

Jim McGarry

#### **Cornell Cooperative Extension**

Sharon Anderson

### Ex-Officio Members

**USDA Natural Resources Conservation Service** Patrick Barry

**US Geological Survey** Todd Miller

### Associate Members

John Andersson

John Mawdsley

Scott Carpenter

Steve Penningroth

Dooley Kiefer

Tom Vawter

Jose Lozano

Linda Wagenet

## COUNCIL MEETINGS AND COLLABORATION

Water Resources Council meetings frequently include presentations by guests. The following presentations occurred in 2012.

February — USGS's New Applications for Mapping Bathymetry and Velocity with Applications for Flood Inundation, Habitat, and Reservoir Capacity

April — Geohydrology, Water Quality, and Simulation of Groundwater Flow in the Stratified-drift Aquifer System in Virgil Creek and Dryden Lake Valleys, Town of Dryden

June — 2011 Storm Damage Report

July — Finger Lakes Museum

November — DEC Wetlands Delineation

Many meetings included updates from the Hydrilla Task Force.

Minutes from the monthly meetings of the WRC are posted on the Tompkins County Planning Department website at: <http://www.tompkins-co.org/planning/committees.html>.

To foster coordination and collaboration in the management of local water resources, WRC members serve as liaisons between the WRC and other groups, including the Finger Lakes-Lake Ontario Watershed Protection Alliance, Cayuga Lake Watershed Intermunicipal Organization and its Technical Advisory Committee, the Upper Susquehanna Coalition, Stormwater Coalition of Tompkins County, Tompkins County Agriculture and Farmland Protection Board, and Tompkins County Environmental Management Council. Informal relationships also exist between the WRC and other organizations and agencies such as the Fall Creek and Six Mile Creek volunteer monitoring groups, the Cayuga Lake Watershed Network, and the Town of Caroline Watersheds Committee.

## COMMITTEE ACTIVITIES

### Aquifer Committee

*Members: John Andersson, Fay Benson, Liz Cameron, Dan Karig, Todd Miller (Chair), Marjory Rinaldo-Lee*

In 2012, the Aquifer Committee investigated arsenic (As) in groundwater in Tompkins County. The county's largest groundwater user, the Village of Dryden, has one well that has been exceeding the NYS drinking-water limit over the last couple years. The maximum contaminant level (MCL) is 10 parts per billion, ppb (ug/L) for public-water systems. In addition, several wells that were sampled for the USGS/Tompkins County aquifer studies also had arsenic that exceeded the state drinking-water limit. The health risks of drinking water that has As in excess of the MCL could be skin damage or problems with circulatory systems, and may have an increased risk of getting cancer.

The Aquifer Committee looked at the results of chemical analyses from wells that tap the glacial-aquifers and the Devonian-fractured-bedrock aquifers. Available data included samples that were collected at 100 sites by the Tompkins County Dept. of Health and USGS during 2000–2012. Elevated arsenic concentrations (greater than or equal to 10 ug/L) were detected in 8 percent of sample sites.

Elevated As concentrations (> 10 ug/L) were associated with strongly reducing conditions, such as that commonly found in confined sand and gravel aquifers (commonly found in Virgil Creek, lower Sixmile, and Fall Creek valleys). Moderate As concentrations (5 – 10 ug/L) were found in some confined sand and gravel aquifer and in some shale aquifer samples.

Arsenic concentrations were not associated with oxic conditions, such as that commonly associated with unconfined aquifers (such as Pony Hollow). Arsenic concentrations were <1 ug/L in all 12 sample sites from unconfined aquifers. Of the samples classified as reducing, concentrations of arsenic greater than 1 ug/L were detected in 48%, in contrast to 0% in oxic samples.

Observations of the occurrence of As in Tompkins County are consistent with other studies in the U.S. and in international studies in that the predominant source of arsenic is iron oxides and the predominant mechanism for releasing arsenic to the ground water is reductive desorption or reductive dissolution. Identifying whether groundwater is under either reducing or oxic conditions can be determined from chemical analyses if dissolved oxygen, nitrate, iron, manganese, and sulfate were analyzed or reducing or oxic conditions can be inferred using aquifer type as a proxy where confined aquifers have reducing conditions and unconfined aquifers have oxic conditions.

The following were identified as needs for further study:

1. Determine why arsenic is found in some parts of confined aquifers but not in other parts
2. Determine why arsenic is found in some places in shale aquifers but not in other areas
3. Determine how many people in Tompkins County may be at risk in drinking groundwater that has arsenic concentrations that exceed 10 ug/L.



*South end of Cayuga Lake*

## Recreation Task Force

*Members: Dan Karig, Lynn Leopold, Rick Manning (Chair)*

Because of two recreation-related projects now underway in Tompkins and adjacent counties, a recreation task force was formed in the summer of 2012 to provide input into these projects and to report on project progress to the full Water Resources Council.

### Cayuga Lake Blueway Trail

In 2012 Tompkins, Seneca and Cayuga County Planning Departments were awarded a NYS Department of State Local Waterfront Revitalization Program to develop a master plan for the Cayuga Lake Blueway Trail (CLBT). Cayuga Lake has great opportunities to create a safe environment for nonmotorized paddlecraft traveling to access local businesses, recreation, and the beauty of the Finger Lakes region. The project will create a data-base of existing conditions for boaters; assess regional assets and identify gaps; propose locations and develop preliminary concepts for access points and launch sites; assess the trail's overall tourism potential; and develop marketing and outreach strategy.

A series of public workshops will be conducted on April 24 and 25 throughout the region to report on planning progress and gather public input on the development of the water trail. The master plan will be completed in the summer of 2013.

### Waterfront Trail Interpretive Panel Development

In 2012 the Strategic Tourism Planning Board awarded the Cayuga Waterfront Trail Initiative a Tourism Capital Grant to develop a series of interpretive panels along the Cayuga Waterfront Trail. Themes to be explored include: Develop a Birding Kiosk along the edge of Cayuga Lake with 2 panels of illustrations of waterfowl and migrants, a panel on the migratory patterns that involve Cayuga Lake, Stewart Park and Montezuma National Wildlife Refuge, and a panel on the 'Swan Pond' – its history and habitat.

Develop an interpretive panel on the Renwick Wildwood (Fuentes Bird Sanctuary) describing the role of the Cayuga Bird Club in preserving



*Fall Creek above Beebe Lake, Town of Ithaca*

the floodplain woodland and the current habitat of the forest.

Develop an interpretive panel on the Wastewater Treatment Plant along the trail between Dey Street and the Farmers Market.

Develop an interpretive panel on the history of competitive rowing along the Inlet, Flood Control and Cayuga Lake

Develop an interpretive panel on the history of Stewart Park.

## Education

*Members: Sharon Anderson, Lynn Leopold, and Elaine Quaroni*

The Education Committee continues to add pertinent information to the WRC web site. Links to up-to-date information on the progress in the fight against hydrilla in the Cayuga Inlet can be found at the StopHydrilla.org website, which is maintained by Cornell Cooperative Extension. New links were added to the 2012 New York State law to prevent spread of invasive species and the 2012 Tompkins County law to prevent the spread of aquatic invasive species. The Education Committee participated in activities of the Outreach Group of the Hydrilla Task Force including participating in public information programs and the Ithaca Parade, staffing an outreach booth at the Farmers' Market and distributing information flyers to marinas at the north end of Cayuga Lake. Helping the Outreach Group of the Hydrilla Task Force reach public officials and the local community will continue for the next few years.

## Executive

*Members: Frank Proto (Chair), Marjory Rinaldo-Lee (First Vice Chair), Barry Goodrich (Second Vice Chair), Craig Schutt*

The Executive Committee spent time in 2012 supporting the efforts of the committee reviewing the Water Quality Strategy and the *ad hoc* Committee on Lake Source Cooling Permit and Total Maximum Daily Load. Also, much time was spent weighing in on the Drilling Permit issue regarding the Supplemental Draft Generic Environmental Impact Statement on gas drilling. Several letters were forwarded to DEC and Governor Cuomo further explaining the position of the Water Resources Council, and noting the lack of time for the public review processes. A County Legislature resolution was passed, using the WRC's outline, expressing their concerns. The actual comments were submitted in 2013 to meet the January deadline. Comments prepared by the *ad hoc* Gas Drilling Committee are available on the WRC website: <http://www.tompkins-co.org/planning/committees/WRC/index.htm>.

## Gas Drilling *ad hoc*

*Members: Liz Cameron, Darby Kiley, Elaine Quaroni, Marjory Rinaldo-Lee (Chair)*

The Gas Drilling Ad Hoc Committee was formed in the late fall of 2012 to review and comment on the revised NYSDEC gas drilling regulations. The committee reviewed the revised regulations and prepared and submitted comments on the regulations to the NYSDEC in January 2013. The committee also prepared and sent comments to Governor Cuomo in January 2013 on the regulations and the process used by the NYSDEC.

## Grants

*Members: Ed Bugliosi, Darby Kiley, Jose Lozano, Craig Schutt (Chair), Linda Wagenet*

The Grants Committee meets as necessary to consider water quality-related grant opportunities. One of the primary duties of the committee is to identify water quality funding opportunities for which the WRC and other entities within the county are eligible and then assist those entities with the application process. Such assistance varies from helping to write the grant applications to providing support for submission of the applications (via support letters or other appropriate means).



Robert Treman State Park, Town of Enfield

The major duty of the Grants Committee is to develop and propose to the WRC a plan and budget for the county's annual FL-LOWPA (Finger Lakes – Lake Ontario Watershed Protection Alliance) appropriation from the state.

## Cayuga Lake Monitoring Plan Committee

*WRC Members: Liz Cameron, Roxy Johnston (Chair), Joan Jurkowich, Dan Karig, Dooley Kiefer, Darby Kiley, Linda Wagenet  
Cornell Partners: Jim Adams, Bert Bland, Todd Cowen, Cheryl Horney, Cliff Kraft, Pat McNally, Seth Schweitzer, Gary Stewart, Ed Wilson*

A major impetus for the formation of the Partnership was to gain support from the DEC for a collaborative approach to monitoring in the southern end of Cayuga Lake instead of using LSC permit required monitoring as a surrogate for those needs.

Partnership activity has been on hold for most of the year due to the lack of response from the DEC on collaborative monitoring and because of a drain on committee member's time due to the discovery of Hydrilla in the Cayuga Inlet.

In the fall of 2012, DEC put out for public comment a proposed permit for the LSC facility that includes a more holistic approach to monitoring and the possible development of a TMDL for the south end of Cayuga Lake. The Monitoring Partnership met to discuss the proposed permit. As comments were being solicited on a document impacting Cornell University, and the University is represented on the Partnership, it was deemed more appropriate for an Ad Hoc

committee of WRC Partnership members to provide comments on the permit and related issues. Please see the annual report for the Ad Hoc committee.

It is anticipated that the Monitoring Partnership will become active again if the proposed LSC permit is implemented.

### **AdHoc Committee on Lake Source Cooling Permit and Total Maximum Daily Load**

In the fall of 2012, DEC put out for public comment a proposed permit for the LSC facility that includes a more holistic approach to monitoring and the possible development of a TMDL for the south end of Cayuga Lake. The Monitoring Partnership met to discuss the proposed permit. As comments were being solicited on a document impacting Cornell University, and the University is represented on the Partnership, it was deemed more appropriate for an Ad Hoc committee of WRC Partnership members to provide comments on the permit and related issues.

The Ad Hoc committee drafted a letter for the WRC to submit to DEC regarding the proposed LSC permit changes. In general the letter was supportive of a more holistic approach to monitoring in the southern end of the lake. However, a number of questions were generated by the proposed permit, those were addressed in the letter. The letter is available on the WRC website.

The Ad Hoc committee decided to separate the permit and TMDL issues to the extent possible and began preparing a separate letter regarding the possible development of a TMDL for the south end of Cayuga Lake. The letter is anticipated to be available for WRC consideration early in 2013.

### **Nominating/Membership**

*Members: Barry Goodrich (Chair), Dooley Kiefer, Elaine Quaroni, Marjory Rinaldo-Lee, Craig Schutt*

The job of this committee is to recommend to the Tompkins County Legislature prospective members to fill vacancies of a 21-person voting council, six non-voting members of relevant Federal or State agencies, and associate members with committee-level voting rights. Members are chosen with these criteria in mind: Credentials, skills, experience, background; Diversity; Residence time and location in Tompkins County; and Other watershed-related activities.

Wow, what a job to select our membership from such a talented pool of applicants. Here is a review of the new appointments, which were approved by vote of the full council to move on for Legislature approval:

At-Large: John Andersson, Scott Carpenter, Frank Proto, Rick Manning

Business and Industry: Sarah Dwyer

Watershed Organization: Barry Goodrich

Tompkins County Planning Department: Joan Jurkowich

Environment: Marjory Rinaldo-Lee

USGS Ex-Officio: Ed Bugliosi

Municipal: Darby Kiley

This committee also recommended, with a unanimous vote of approval by the WRC, a slate of officers for 2013:

Frank Proto as Chair;

Marjory Rinaldo-Lee as First Vice-Chair;

Barry Goodrich as Second Vice-Chair.

### **Streams**

*Members: John Andersson, Liz Cameron, Bill George, Barry Goodrich, Roxy Johnston, Dan Karig (Chair), Gregg McConnell, Todd Miller, Marjory Rinaldo-Lee, Craig Schutt*

The Streams Committee concentrated its efforts during 2012 on the re-establishment of two USGS gaging stations. Re-establishment of the Inlet Creek gaging station was urged and was accomplished at a new site at the fish ladder at the south end of the



Jennings Pond at Buttermilk Falls State Park,  
Town of Danby

Inlet. Funding was in association with the Hydrilla eradication program. The Committee also drafted a letter to the Town of Lansing urging funding for the re-establishment of the Salmon Creek gaging station. This effort became moot when these funds became available through the Cornell-DEC Cayuga Lake Watershed Modeling Project, part of the Lake Source Cooling permit renewal process.

Other projects begun by the Streams Committee included support for the posting of stream water quality data on the Cornell e-Commons and an investigation of the salt concentration in County streams over time.

### You're Invited . . .

**We welcome visitors!** Residents of Tompkins County are invited to attend meetings of the WRC and apply for WRC membership. The Water Resources Council meets the third Monday of each month from 4:15 to 6:00 PM at the Transit Center (737 Willow Avenue, Ithaca). Feel free to phone the Secretary at 274-5560 about dates, or check our website.

**2013 meeting dates:** January 28, February 25, March 18, April 22, May 10, June 17, July 15, September 16, October 21, November 18, December 16.

For more information about the WRC or how to apply for WRC membership, please contact the Tompkins County Planning Department at 274-5560 or [planning@tompkins-co.org](mailto:planning@tompkins-co.org).

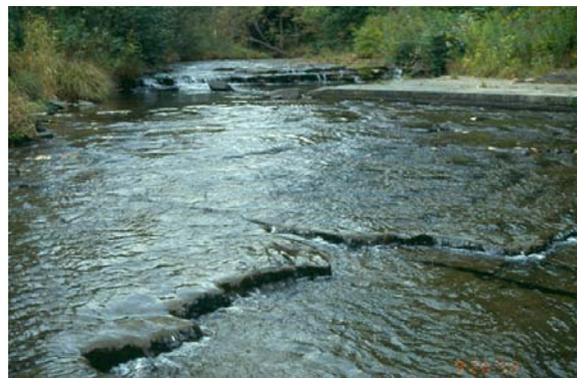
### Wetlands Committee

*Members: Dooley Kiefer, Darby Kiley (Chair), John Mawdsley, Craig Schutt, tom Vawter*

The full WRC approved the sample wetlands protection local law that was drafted by the Wetlands Committee. In order to inform municipalities that the sample law is available, a presentation was made to the Tompkins County Council of Governments.

In addition to the sample law, other wetland resources are now available on the committee webpage. These resources include information on the State and federal mapping and regulatory programs, wetland organizations, and local wetlands of regional/national significance.

The committee began discussions on how to use relatively new data to map wetlands that are not currently mapped by the State or federal governments. In 2013, the committee hopes to access funding and work with a local GIS consultant to perform a pilot study in Tompkins County.



Sixmile Creek from Old 600 Road, Town of Caroline