

# Community Science Institute

## 2015 Annual Report

*Partnering with communities to protect water since 2002*

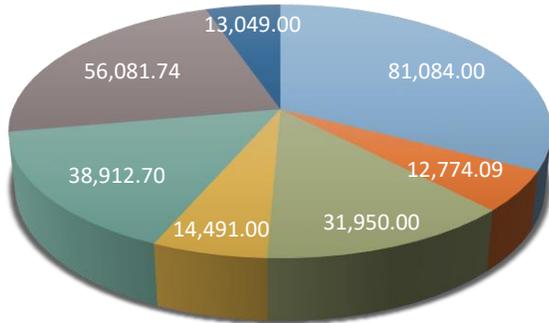
### 2015 Highlights

- ◆ Continued our monitoring partnerships with volunteer groups, collecting and publishing 5,952 certified test results on 91 locations on Cayuga Lake tributary streams and 19 locations on Seneca Lake tributary streams as well as 2,913 field measurements on 71 locations on small streams in the Upper Susquehanna River/Chesapeake Bay watershed
- ◆ Collaborated with the Cayuga Lake Watershed Network to initiate a partnership with a new volunteer group to monitor Canoga, Buroughs and Williams Creeks at the northwest corner of the lake
- ◆ Partnered with the Seneca Lake Pure Waters Association (SLPWA) for a second year to characterize water quality in Seneca Lake tributary streams
- ◆ Tested 1,587 non-potable water samples and 1,657 drinking water samples on a fee-for-service basis for homeowners, businesses, the Tompkins County Health Department and Cornell University
- ◆ Provided technical support for recreation and tourism in the Finger Lakes region by a) Testing E. coli levels in swimming areas at eleven New York State parks from May to September on a weekly basis; and b) Monitoring levels of herbicides applied to Fall Creek and the Cayuga Inlet from July to October to eradicate the invasive weed Hydrilla
- ◆ Presented six public forums, three on the relationship of climate change, invasive species and "fracking" infrastructure to water quality in New York streams and three on water quality in Seneca Lake tributary streams
- ◆ Supported biological monitoring activities based on benthic macroinvertebrates (BMI):
  - 18 sampling events at 16 different locations involving collection of BMI samples, sorting and identification of organisms and calculation of metrics resulting in water quality ratings
  - 30 bio-monitoring volunteers and more than 300 volunteer hours spent sampling, collecting and analyzing BMI samples both in the lab and in the field (separate from educational groups).
  - CSI provided an introduction to BMI monitoring and guidance in sample collection and analysis to five educational groups: Ithaca ScienCenter, Groton and Dryden High School classes, the Floating Classroom Goby Project and 4-H20 Monitors.
  - Submitted seven (7) WAVE samples to the NYSDEC
- ◆ Hired Maribeth Rubenstein as full-time Outreach Coordinator/Public Science Educator to replace Becky Sims, who left in May to become the Teaching Laboratory Coordinator at the Boyce Thompson Institute

### Our Mission

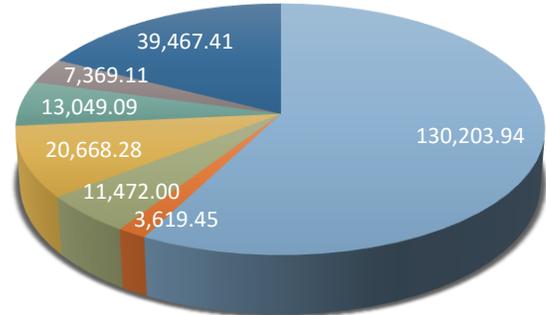
The mission of the Community Science Institute is to foster and support local environmental monitoring in partnership with volunteers in order to gain a better understanding of natural resources and how to manage them for long-term sustainability.

**CSI 2015 Income**  
**Total: \$248,415.38\***  
**\*Including \$72.85 interest and dividends**



- Local Government Grants
- Foundation & NFP Grants
- Grant Close Outs, 2011-2014
- Donations
- Fee-for-Service Contracts
- Fee-for-Service General Public
- Sub-contract Lab Tests

**CSI 2015 Expenses**  
**Total: \$226,463.57**



- Personnel
- Contract Labor
- Web Services
- Lab Supplies
- Sub-contract Lab Tests
- Miscellaneous
- Indirect Costs

## Our Donors

### Watershed (\$1000+)

Anonymous  
 Cornell University  
 Dylan Penningroth & Carolyn Chen  
 David Weinstein and Christina Stark

### Estuary (\$500+)

Patricia Nelson

### Lake (\$250+)

Steve Penningroth & Judy Roberts  
 John Reed & Janice Burton  
 Curtis & Amanda Ufford

### River (\$100)

Tom Butler  
 Eric Evans  
 Glenn & Cassandra Galbreath  
 Ellen & Rick Harrison  
 Hewlett Packard  
 Leah Horwitz  
 Nelson Hairston  
 Ed Przybylowicz  
 Christopher Riley  
 Jack Rueckheim  
 Linda Simkin and Jim Frisch

### Stream (\$50)

John Abel  
 Diane and Mason Addison  
 Tommie Blecher  
 Diane Chu  
 G. Walton & Jean Cottrell  
 Marnie and Johnathan Cryer  
 Barbara Dewall  
 William and Maryjane Ebert  
 Martha Fischer & Susan Robinson  
 Thomas & Katherine Halton  
 James Hewett  
 Lee Hersh  
 Dan Karig & Joanne Molenock  
 Robert Kibbee & Janet McCue  
 Hillary Lambert  
 Lynn Leopold  
 Lili MacCormick  
 Jonathan Miller  
 Lory Peck  
 Martha & Steven Robertson  
 Elizabeth Sanders  
 Regi Teasley & Judy Saul  
 Paula Terkon  
 Deborah Youngling

### Creek (\$25)

Jeffner Allen  
 Dave Astorina  
 Douglas & Olive Brown  
 Stephen & Carol Clendendin  
 Horton & Shirley Durfee  
 Jan Glover  
 Becca Harbor  
 Carol Hardy  
 Bill Heavside  
 Dave Heck  
 Dooley Keifer  
 Philip Koons  
 Mary Anne Kowalski  
 Louis Munch & Susanne Maloy  
 Jay Schissel  
 Mike Straight  
 Fred Stoss  
 Mitch Weiss & Martha Hamilton  
 Anthony Williams

### Local Government Support

Tompkins County - \$25,250  
 Town of Ithaca - \$19,497  
 Town of Dryden - \$12,779  
 City of Ithaca - \$10,175  
 Town of Ulysses - \$5,718  
 Town of Danby - \$3,735  
 Town of Caroline - \$2,930  
 Town of Hector - \$1,000

### Grants & Contracts

Seneca Lake Pure Waters Association - \$11,324  
 Sciencenter - \$500  
 The Community Foundation of Tompkins County - Taylor Peck Fund - \$500  
 Center for Transformative Action (CTA) - \$450

# *Thank you!*

## Executive Director's Message

The "Highlights" section of this report illustrates the scope of CSI's stream and lake monitoring partnerships with local volunteer groups in terms of geography – roughly 3,000 square miles; number of monitoring locations – close to 200; and amount of data generated – just under 9,000 items, including almost 6,000 certified analyses on samples collected by 12 synoptic monitoring groups and 3,000 field measurements by 19 Red Flag teams. These chemical and microbiological data help fill the enormous gaps left by broad-brush monitoring programs at the state and federal levels and by academic studies that generally have limited utility for regulatory and management purposes.

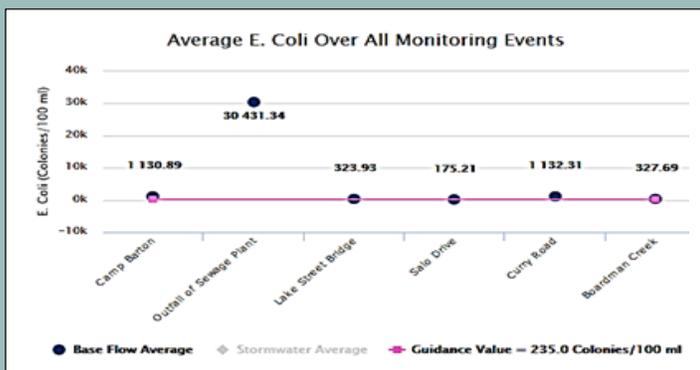
We hope that government agencies and academic institutions are using the results that we generate with our 30-plus monitoring partnerships and some 200 volunteers, and that we post online in our public database – but are they? It seems that, increasingly, they are. Here are some examples from 2015: A commitment by NYSDEC to investigate what might best be described as [astronomical levels of phosphorus in Reeder Creek](#), a tributary of Seneca Lake, based on data gathered by CSI's monitoring partnership with volunteers from the Seneca Lake Pure Waters Association (SLPWA); validation of a mathematical model being developed [Cornell University's Cayuga Lake Modeling Project](#) for estimating phosphorus loading to Cayuga Lake tributary streams that will be used by NYSDEC and EPA to establish Total Maximum Daily Load (TMDL) for the South end of Cayuga Lake; and breaking ground for a [\\$6.2 million upgrade of the Village of Trumansburg sewage treatment plant](#) that resulted in large part from years of [volunteer-CSI monitoring data](#) showing greatly elevated levels of fecal coliform and E. coli bacteria.

While CSI's online database is gradually becoming a go-to place for government agencies and academic scientists searching for reliable data on water quality in our region, our staff and board are committed to making it useful to citizens with a broad range of IT skills and environmental science literacy. We would like our database to be a tool that helps the public learn useful questions to ask regarding water quality and for citizens to make use of the database to look for possible answers. Stay tuned!

CSI is first and foremost a not-for-profit, 501(c)3 tax-exempt organization with a mission to increase understanding and stewardship of local natural resources, particularly streams, through monitoring partnerships with groups of volunteers. However, our lab also provided drinking water testing services in 2015 by performing 988 certified drinking water tests, most of them for coliform bacteria and nitrate, for 823 private homeowners, realtors and businesses, and another 669 drinking water tests for local institutions including the Tompkins County Health Department, Cornell University and New York State parks in the Ithaca area. The next closest full-service water testing lab is located in Cortland. We embrace our role in maintaining and protecting local drinking water supplies.

Finally, I want to thank our volunteers and our members -- our volunteers because they literally make CSI's work possible by sampling streams in every kind of weather, and our members for their extraordinary generosity and faith in the importance of data as a key to clean water.

*Stepha L. Penningroth*



Far left:  
Base flow averages of E. coli levels along Trumansburg Creek, 2006-2015. Stream mouth at left. Scale includes high sewage plant value. Swimming standard is 235 colonies/100 ml.

Left:  
Taughannock Falls, 2015. Photo by Laura Dwyer.

## CSI Board of Directors

Robert Barton, *President*    Angel Hinickle, *Vice President*    Patricia Nelson, *Treasurer*    William Coon, *Secretary*  
Gerald Van Orden    Deborah Jones    Sharon Kaplan    Steve Penningroth    David Weinstein



# Community Science Institute

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Fax: 607-257-6606

Certified Water Quality Testing Lab  
NYSDOH-ELAP #11790  
EPA Lab Code NY01518

Send To:

Partnering with communities to protect water



*Identifying benthic macro-invertebrates (BMI)*



*Chemical monitoring Six-mile creek*



*Nitrate Assay*



*CSI Staff*



*BMI Sampling - Six-mile creek*



*Stonefly nymph - Enfield Creek*

