

DID YOU KNOW?

- CSI volunteers monitor over 1700 square miles of drainage area. That's bigger than Rhode Island!
- CSI is certified for many drinking water tests and can test your well water. Members get special discounts!
- Tompkins County spans two major watersheds—the Chesapeake Bay and the Great Lakes Basin. Do you know what watershed you live in?

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CSI Assesses Risks From Fracking

CSI collects comprehensive baseline data for Cayuga Lake streams

Very little is known about the risks to water from hydrofracking. It's not hard to find stories of fishkills, flammable faucets, strange rashes, dead livestock, or explosions near hydrofracking operations. It's also not hard to find a strong narrative from the shale gas industry about safety precautions, multiple well casings, best management practices, and a commitment to responsible gas extraction. The reality is that we're living through a massive scientific experiment where only time will tell what, if any, impact hydrofracking will have on water. ("Hydrofracking" refers to high volume horizontal hydraulic fracturing along lateral bores up to a mile long and is sometimes known as "unconventional" gas development.) The Finger Lakes region is well known for its clean water. In

Tompkins County, where nearly every town has a ban or moratorium on hydrofracking, water resources - both streams and lakes - are invaluable assets. CSI began monitoring Cayuga Lake streams in 2002 to measure the impact of agriculture and urban development. This "Synoptic Sampling" monitoring program has been at the core of CSI's work, until hydrofracking came along. Late in 2009, when drilling seemed imminent, it became clear that our monitoring program needed to include



Chemical Analyst Casey Halton tests samples for chloride, an indicator for brine waste

more parameters specifically related to hydrofracking. Our Synoptic Sampling program already included tests that are pertinent to both urban development and hydrofracking, including: total hardness, chloride, and conductivity, to name a few.

In 2012, thanks to support from the Tompkins County Legislature, CSI collected and analyzed samples from 35 stream locations in each of the major watersheds flowing to the Southern end of Cayuga Lake: Trumansburg Creek, Taughanock Creek, the Cayuga Inlet, Six Mile Creek, Fall Creek and Virgil Creek. In addition to the parameters normally included as part of Synoptic Sampling, tests were added for gross alpha & beta radioactivity, barium, strontium, sulfate, chemical oxygen demand, surfactants, and total dissolved solids.

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A Message from CSI's President

The Community Science Institute was founded over a decade ago to empower our local citizens to un-

derstand the risks to our water and participation of as many community members as possible. The citizens of our region benefit enormously

from our work. As the population of our water and where future dangers might lie. CSI's database continues to grow rapidly; our mission keeps