



The Upper Oconee Watershed Network is dedicated to protecting water resources and improving stream health in our watershed through community-based advocacy, monitoring, education, and recreation.

From the President

Hello UOWN family members,

2016 has been yet another exciting and action-packed year for UOWN. Let me start by thanking everyone for their support throughout the year. We exist for and because of our community. For nearly twenty years, we have been keeping an eye on water quality and the issues associated with it.

For me, the highlight of the year was our inaugural **Upper Oconee Science and Policy Summit**. Attendees saw 16 excellent presentations on the health of our watershed from local researchers. The event highlighted our progress to protect local water resources. Additionally, it helped us focus our future consideration for additional conferences and activities.

We said goodbye to four board members this year. Our advocacy chair, Kyle McKay departed to move to NYC with his wife. He continues to work for the US Army Corps of Engineers. Our education committee chair, Kate Mowbray, leaves after four years of service. Kate is a long-time friend of UOWN. She will continue to help with our Adopt-A-Stream trainings at Sandy Creek Nature Center. Mike Lord, who also served on the UOWN board for four years, has left to focus on his two businesses, Barrelman Productions and Eastern River Expeditions. The final board member who says “adieu” after two years service is Dr. Kelli Hiatt. She has accepted a senior position with the US FDA in Maryland.

In collaboration with UGA’s Dr. Anne Marie Zimeri, Kelli has been working overtime to establish the **HARVEST Initiative**. The project will examine micro-organisms in organic farm runoff. Kelli will continue to work with the HARVEST Initiative and UOWN to grow the project. All four will be greatly missed and we thank them for their service.

We also welcomed one new board member, Dr. Jason Westrich. He is a member of the Lipp Lab in the Department of Environmental Health Sciences. He has long been engaged with UOWN to organize our bacterial monitoring efforts.

I’m sure that 2017 will hold opportunities and challenges and we are ready for both. If you’d like to join us, we are always looking for volunteers at all levels. Check out our website (www.uown.org) or find us on Facebook.

You can reach Bruno via info@uown.org

Education Committee Report

This year the education committee’s goal was to increase our outreach activities. We began by participating in the **Stroud Elementary Science Night** for the first time. We also set up an educational booth at the West Broad Farmer’s Market on two different Saturdays. We continued to have a presence at the Athens Water Festival at Sandy Creek Park and Insectival at the State Botanical Gardens of Georgia. We met over 500 participants at each event!

We enjoy reaching out to the community and sharing our desire to improve our water

quality. If we want to see change, we have to make people aware of the problems we are facing.



In order to address issues that we face in our watershed, the committee created two outreach activities to help demonstrate what a watershed is and how having buffers and more greenspace can prevent water pollution. During River Rendezvous, we debuted new activities to help participants have fun while learning about water. The most popular was the water quality obstacle course where children had to pick up dog poop (fake of course), crawl through a storm drain, and build a wall to keep out the cows.

Taking our message and turning it into action requires further educational opportunities. At Sandy Creek Nature Center and in Watkinsville in conjunction with the Oconee Waters group, we were able to offer three days of workshops covering chemical and macro-invertebrate monitoring. We awarded 30 certifications and re-certifications during the workshops.

We appreciate all of the support from our volunteers to help make these opportunities possible.

If you would like to be part of the education committee or volunteer for an event, please contact education@uown.org.

Oconee County Committee

UOWN OconeeWaters volunteers have been hard at work this past year collecting data from Barber Creek, Calls Creek, Rose Creek and Little Rose Creek. Using Adopt-A-Stream protocols we regularly sampled 16 sites. The data we collected and analyzed will help inform citizens concerning the water quality in these streams. Additionally it was made publicly available at the state's Adopt-A-Stream website (www.georgiaadoptastream.com, GroupID=2206). The Environmental Protection Division (EPD) has designated Barber Creek and Calls creek impaired due to excessive fecal coliform levels.

UOWN OconeeWaters held several Adopt-A-Stream workshops this past year for both chemical and biological analysis to equip citizens with the knowledge to assess stream water quality. Thirteen volunteers earned chemical sampling certification and 11 received biological monitoring certification. We need more volunteers to assist in collecting this valuable data because it allows us to observe changes in the health of our streams and to advocate for improving the water quality of our streams based upon data collected.

With a grant from the Newland Family Foundation, we obtained sophisticated equipment to test for nitrates, phosphates, turbidity, pH and dissolved oxygen.

UOWN volunteers met with Chris Manganiello, former Policy Director for Georgia River Network (GRN), to discuss our concerns regarding the Oconee County request to raise Calls Creek Wastewater treatment capacity from 1.5 million gallons daily to 3.0 MGD. As a result of the meeting GRN sent a letter to EPD expressing our concerns. Consequently, the EPD denied the increased discharge permit request.

Local Student Using UOWN Data

Using UOWN data, OconeeWaters volunteer Luke Morneault created a Science Fair project. He compared averages for conductivity, nitrate, turbidity and E.coli data at Calls, McNutt and Barber creeks against findings in the Little et. al. Georgia Water Resources paper from 2006.

Additionally he evaluated conductivity and nitrate averages for two sites on Calls Creek upstream and downstream of the Calls Creek Wastewater Treatment Facility. The results showed significant differences between these two sites. Effluent entering the creek from the treatment plant outflow within the Calls Creek Hickory Hills subdivision has significantly higher conductivity and nitrates. The increase may signal the presence of stormwater runoff (possibly from old septic systems, livestock waste, pet waste, and fertilizers), discharge from industrial plants, wastewater treatment plants and/or leaking sewer pipes. An increase in nitrate and phosphate levels can lead to excessive algae in the stream and may cause lower oxygen levels, adversely affecting aquatic life in the stream.

New Citizen Committee for Water Resources

UOWN OconeeWaters has been encouraging citizens to learn more and stay informed about water quality issues. Volunteers Diane Windham and Dean Krugman now serve as our representatives on the newly formed Citizens Committee for Water Resources. Out of concern for the future widening of Highway 441S and the proposed Bishop bypass, we have received requests to expand our effort to monitor streams that could be impacted by these road projects.

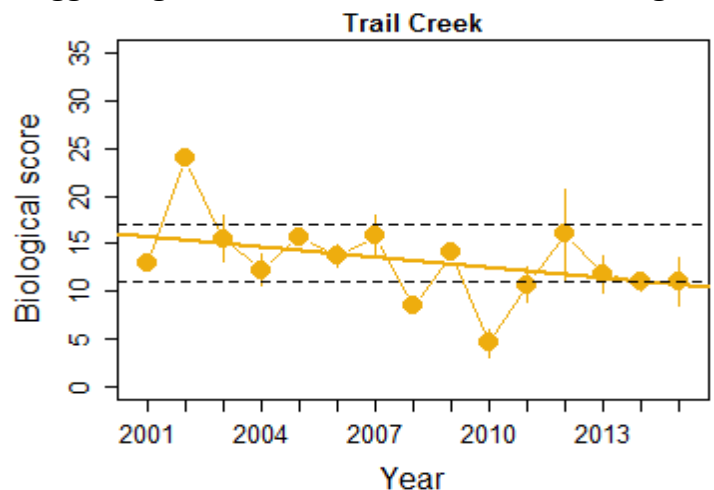
Contact Vicki via oconeewaters@gmail.com

Science & Monitoring Committee

2016 was a fantastic year for UOWN and that was definitely true for the science and

monitoring committee. Let me begin by thanking the many volunteers that make what we do possible. We had well over 140 volunteers at quarterly sampling events this year! At River Rendezvous in April we sampled 92 sites. Throughout the year we averaged 64 sites sampled during our quarterlies and ended the year on a high note by sampling over 80 sites in November. This was the second consecutive year that the fall quarterly had such fantastic turnout, exceeded only by the Spring River Rendezvous! This year truly built on the momentum we had from large quarterlies last year and we hope to continue that into next year.

In September, UOWN collaborated with other organizations to stage the first Upper Oconee Science and Policy Summit. Speakers presented long-term trends in biological data that UOWN has collected for 15 years. The Banner-Herald covered the summit. Our data show that the macro-invertebrate (insect) communities in several streams are declining, suggesting that stream health is also declining.



The figure above shows the biological score that we calculated based on our samples. The sensitivity of many insects to pollution is well established, thus we can calculate these scores based on the presence of sensitive and tolerant groups. Our data suggest that health of Trail Creek has declined, even after returning to pre-chemical spill levels in 2012.

In addition to our presentation of UOWN data, we had several other experts present at the conference who are now collaborating with UOWN to conduct research at UGA. We are currently partnering with two labs at UGA that are interested in bacterial communities in our streams (including human pathogens like *E. coli*). This year we also began collaborating with scientists at the EPA. All of these collaborations are a win-win for us, the researchers, and the community. As a result, we've been able to increase the frequency of *E. coli* sampling in our watershed.

We are excited for what 2017 may bring for the science and monitoring committee. We are always trying to improve our sampling to help better protect our water resources. We could really use volunteers to sample macro-invertebrates that live in our streams. These insects are great indicators of the health of our creeks and rivers, and are also interesting in their own right! If you feel like learning how to collect bugs from our streams and to identify mayflies, stoneflies, caddisflies, etc., we would love to have you. We are always in need of novice and experienced bug samplers.

Contact Phillip Bumpers (science@uown.org) if you are interested in being a part of science and monitoring with UOWN.

Report from Water Trails

In 2016, the Water Trails committee made tangible progress towards creating a recreation pathway along the North Oconee River.

In June the county constructed, with financial assistance from UOWN, a boat launch in Ben Burton Park along the Middle Oconee River. The structure is scheduled to be upgraded during the winter low flow to extend the ramp further into the river.

The committee is hard at work identifying properties that would support another launch along the Middle Oconee.

To avoid confusion with a similar effort being undertaken in Milledgeville, the

committee renamed the proposed trails to Upper Oconee Water Trail. They are in the process of obtaining a website detailing their plans and accomplishments.



If you are interested in helping out with water trails please contact Diane via upperoconeeWatertrail@uown.org

Advocacy Report

In 2016 we continued to monitor local government actions (in both Athens-Clarke and Oconee counties) that affect our watershed and, ultimately, our water supply.

Early in the year ACC Commission discussed and voted on the financial aspect of the Service Delivery Plan. The plan formalizes ten year goals for the Public Utilities Department.

We lobbied the ACC Commission and were successful in changing the language calling for a \$20M study for new reservoirs. These long term infrastructure projects have been proven to be cost ineffective. For instance, the Hard Labor Creek Reservoir in Oconee County was originally expected to cost \$41M; its final cost is closer to \$350M! Additionally, the Water Conservation Program at ACC has enticed residents to reduce their water consumption by approximately 25% since 2006, thereby alleviating the need for a reservoir.

We also are closely monitoring the situation in Oconee County. The county's Calls Creek

Waste Water Treatment Facility is reaching its design capacity and will need to be expanded or replaced. The EPD granted the county permission to increase effluent discharge from 1MGD to 1.5MGD but rejected a request to discharge 3MGD into Calls Creek. One proposed solution is to extend an effluent pipe along Calls Creek to the Middle Oconee River. There is concern among residents an effluent pipe will damage the environment and lower property values. Alternate plans involving pumping stations to re-direct untreated sewage to Rocky Branch Land Application facility or construction of a new facility on the Middle Oconee are not without concerns.

If you are interested in helping out by attending meetings or generating letters, please contact us via advocacy@uown.org

River's Alive

As in past years, UOWN partnered with ACC Solid Waste, Keep Athens-Clarke Clean and Beautiful, and the state of Georgia Environmental Protection Division to clean up our rivers.

While the heavy rain significantly dampened efforts, we were able to remove dozens of discarded tires from the river. We also worked with UGA Greek Life to clean up trash along the North Oconee.

Please join us next year. We can always use a few willing hands to help us keep our local waterways clean. October is Rivers Alive month, so stay tuned to UOWN's Facebook page and website in 2017 for more details. Hope to see you there!

Outreach Committee

2016 was another great year for the Outreach Committee as we continued hosting UOWN & Friends events for our members and friends.

In May, we held a percentage night at Ben & Jerry's downtown, where we ate delicious ice

cream to support UOWN's efforts in protecting our watershed! In June, we joined our friends at the Yellow River Water Trail for a guided paddle along their newly established water trail. We had beautiful weather and came up with some great ideas for developing a water trail in our own watershed!

In fact, our June paddle along the Yellow River inspired us to host a paddle in August on the Middle Oconee River to introduce our members to the newest access point of the Upper Oconee Water Trail. Unfortunately, low water levels prevented us from paddling downstream as planned, but it didn't stop us from grilling out at Ben Burton Park and paddle-boarding upstream!



We wrapped up our series of UOWN & Friends events in October with an outdoor movie screening of "Who Owns Water" where our members learned about the tri-state water wars and discussed possible solutions.

In 2017, the Outreach Committee will continue to host events to get to know our members and to welcome new members to the UOWN family. Stay tuned for a paddling trip, a happy hour, and maybe even a snorkeling adventure!

Please contact Hunter at outreach@uown.org if you are interested in helping the Outreach Committee.

Internships

UOWN continues to provide students with experiential learning opportunities.

In the Fall, Jordan Francis, a senior in wildlife biology, helped us organize the Upper Oconee Science and Policy Summit. Because of her help, the event was a whopping success.

Kayleigh Hall is a senior from Nashville, GA pursuing a combined Bachelors/Masters degree in Environmental Health Science. Her main areas of interest are water quality and aquatic microbiology. She will be collecting water samples from streams near organic farms to support the HARVEST Initiative.

If you are interested in interning for UOWN, please contact us via info@uown.org.


Upcoming Events

- Feb 2: 4:30P OconeeWaters Planning Meeting
Feb 5: 9A Quarterly Water Monitoring,
Sandy Creek Nature Center
Feb 14: 1:30P ACC Romantic Tour of Water
Reclamation Facility
Apr 9: 9A River Rendezvous, SCNC

See the UOWN calendar at www.uown.org/events for details.



UOWN Membership

	Name				
	Street				
	Address				
	City		State	Zip	
	email				
Level	<input type="checkbox"/> Student	\$20	<input type="checkbox"/> Family	\$50	
	<input type="checkbox"/> Individual	\$30	<input type="checkbox"/> Other	\$	

Mail completed form to: UOWN, P.O. Box 531, Athens, GA. 30603

One may also become a member online. Go to www.uown.org; click the JOIN link.