

Internship Report

The Catawba Riverkeeper Foundation is a nonprofit that operates in 24 counties to restore and preserve the Catawba River watershed. With fifteen years of dedication to improving water quality and public education, Catawba Riverkeeper Foundation is an extremely impressive nonprofit organization. Specifically, this organization focuses on an ongoing monitoring of water quality, fish tissue, and sediment for issues such as elevated levels of heavy metals, sewage overflows, and sediment runoff. They train volunteers through four different grassroots organizations to help maintain the integrity of the watershed. In particular, Catawba was successful in focusing on securing the protection and advocating due designation of the river as Americans Most Endangered river in 2008, listing as the 4th most stressed river in the United States, and unsafe levels of metals and PCB's in fisheries. This summer, the Catawba River was named America's second most threatened river due to the threat of the power plants in watershed that have dumped coal ash and scrubber residue into 551 acres of holding ponds. Catawba Riverkeeper Foundation is currently in litigation with Duke Energy Carolinas for pollution of Charlotte, North Carolina's drinking water.

This summer was a high-paced internship between the lawsuit with Duke, ongoing water quality sampling, a youth kayaking program, and the foundation's largest fund raiser: a rubber duck race. Specifically I worked on compiling a comprehensive record of wastewater spills occurring in the Catawba Riverbasin in the past year. This included filling out freedom of information acts, contacting multiple governmental agencies, and going through public databases. Documentation for spills in the Catawba Riverbasin allows residents to get an idea of how much sewage, gasoline, oil and other

materials are spilled into the Catawba Waterbasin and continue into the Catawba River each year. Overall, in the past year, 6,793,643 gallons of contaminants have spilled into the Catawba River. Due to my previous experience in Geographic Information System (GIS), I was able to get their GIS programs up and running. I requested and received GIS information from all the counties in the Catawba Waterbasin including tax, acreage, parcel and hydrology data. I calculated the tax revenue of waterfront properties for each county, quantifying the importance of water quality. This waterfront tax revenue opposed to the percent of acreage these parcels comprised reflected how important they are to maintain the tax flow of the county. I also worked on sampling water downstream from concentrated feeding operations (CAFOs). In North Carolina, swine and poultry are the two main livestock operations. We sent our samples to a state-certified lab to test for high levels of phosphorous nitrogen and bacteria.

One of my favorite parts of my internship was the Youth Kayaking program. On Tuesdays the interns would give presentations to inner-city kids involved with Salvation Army's Boys and Girls Club. The presentation would highlight the importance of our water and current threats. We took the kids out sampling for the E. coli bacteria in streams close to the club. The kids were then able to see the bacteria colonies grow and record the number of colonies. Hopefully this half-day program will inspire some kids to pursue science or at least have an interest in the water. On Thursdays the group went kayaking on the Catawba River. Most were scared of the water but once we got them out they never wanted to leave. They had the opportunity to see turtles including river cooter and yellowbelly slider, herons, egrets and ospreys.

I learned this summer that an internship is really what you make of it. Going into this internship I was expecting to do only science-based work, mainly testing and field work. I did some science work, but in doing a variety of projects I was able to have a stronger contribution to the nonprofit. I not only contributed in data gathering and analyzing, but capitalized on my writing, oral presenting, and even photography skills. When I was shooting pictures for our Bobby Kennedy press conference, I drove a boat full of press over to see the coal ash seeps they were writing about. I started explaining to them the scientific implications of the seepages and one looked at me and said, "I thought you were the photography intern!"

I thought I wanted to go into environmental consulting when I graduate in the spring, however this internship has opened my eyes to the possibility of nonprofits. I love the way I felt like I was making a real difference this summer while doing something I enjoyed. I have realized that I need to be passionate about the work and the mission of the company after I graduate. Riverkeeper is part of a parent organization, Waterkeeper Alliance. As a worldwide organization, I would love to work somewhere internationally where my skills could really be used to make a difference. When I asked a fellow Sewanee grad whom is currently working in environmental consulting if he felt like he was making a difference he responded without skipping a beat, "No." I know after working with Catawba Riverkeeper Foundation that my answer needs to be yes.