



**The Association of Environmental & Engineering Geologists
and
the South Carolina Association of Environmental Professionals**

**Field Course to Explore the Geology and Civil/Environmental
Engineering of the Jefferies Hydroelectric Generating Station,
Coal Ash Pond, Old Santee Canal Park, and Fort Fairlawn
Moncks Landing, South Carolina
Saturday, September 13, 2025 – 7:30 AM to ~5:00 PM**

**Field Course Leaders:
Melanie Goings, P.G., Santee Cooper
Adam Mims, MEM, Santee Cooper**

Event: Field course to explore the geology and engineering of the Jefferies Hydroelectric Generating Station and Old Santee Canal Park in Moncks Corner, South Carolina.

Details: The tour of the hydroelectric station and lock system will be led by station personnel, who will provide a history of Santee Cooper; how the facility, dams, and dikes were built; and how they get their inflow. This discussion will include some of the geology and hydrogeology of the area (with maps) and how it was conducive to the facility.

Location: The field course starts at the Santee Cooper Corporate Complex at One Riverwood Drive in Moncks Corner and ends at the Old Santee Canal Park at 900 Stony Point Road in Moncks Corner.

Cost: \$30, includes bottled water, snacks, and a mid-day barbecue lunch in the Oak Room at the Interpretive Center at the park.

Restrictions: No children under the age of 13. Children must be accompanied by an adult. Long pants and closed-toed shoes are required for entrance. For those who want to go down onto the turbine floor and into the basement, they will need safety glasses and hard hats will be required. If you do not have access to hard hats or safety glasses, please specify when registering. There are a limited number available at the station

Registration: Register online at www.aegcarolinas.org/news. **Reservation deadline: 5:00**

PM, Friday, August 29, 2025

Field Trip Waiver: Please sign/date and return field trip waiver to Andrew Beaty at andrewbeaty3@gmail.com by September 5 or bring it with you to the field trip.

Continuing Education Credits: 6 hours for North and South Carolina geology boards

Field Trip Description:

We will meet at Santee Cooper's Corporate Complex to ride share (limiting the number of vehicles going into the station). Then the first stop is the Jefferies Hydroelectric Station, where station personnel will describe the history of Santee Cooper, how the station, dams, and dikes were built, and how they get their inflow, etc. The tour will include the lock system for transport between Lake Moultrie and the Tail Race Canal (headwaters of the East Branch of the Cooper River). An overview of the geology and hydrogeology of the area (with maps) will be provided, and how it was conducive to the facility. The dam, locks, turbines, etc. will all be visible.

The second stop is the Ash Pond at Jefferies, which is currently being "closed" under the State Closure Plan approved by SCDES and under the guidance of the Federal CCR Rule by removing ash for beneficial use and landfill disposal. We will observe the ash pond, decant pond, and associated groundwater monitoring wells. Adam and Melanie will talk about the beneficial use of the ash, with further discussion about the geology of the site and the groundwater-monitoring network for both state and federal regulations. Again, we will use maps and visuals for discussion, and then head back to the Corporate Complex to retrieve vehicles on the way to Old Santee Canal Park (OSCP).

A barbecue lunch will be set up in the Oak Room of the Interpretive Center at OSCP., Brad Sale, Director of the Park, will provide an overview and history of the Park, including all the attempts of a canal system (because the geology and water shed were advantageous) due to the bluffs providing a strategic advantage along the river; the artifacts, mineral and fossil collections at the park, and the kiosks around the park.

Brad will then lead a tour of Fort Fairlawn, where at about 3:00 PM participants will be able to use the Scavenger Hunt brochure for a self-guided tour of the remainder of the Interpretive Center, Berkeley Museum, and Boardwalks, which have outcrops of local geology. Canoes rentals are available for a small fee, and though a tour of the inside isn't offered, there is an Antebellum house -- the Stoney Landing House -- on the bluff overlooking the Tail Race Canal.

Biographies for Melanie and Adam:

Melanie, a graduate of the College of Charleston, practiced geology with a couple of environmental consultants (Geraghty & Miller (now Arcadis) and Sirrine Environmental Consultants (now Aecom) for over 10 years before joining Santee Cooper's Environmental Services. For almost 27 years, she's been responsible for state and federal groundwater monitoring, including both compliance and remediation. She also coordinates the company's UST Program, and has supervised and mentored many college students via the company's Environmental Intern, Summer Student, and Co-Op programs. Since both her children are grown, she and her husband enjoy spending time with their grandson, puppy dog, and family.

The ability to travel experiencing new cultures, historic civilizations, and rocks, is their latest passion.

Adam, a graduate of Coastal Carolina University, practiced analytical chemistry and biology with General Engineering Labs for 3 years before joining Santee Cooper's Generation Fleet at Cross Generating Station's Analytical Lab. 7 years later, he moved into the Environmental Services CCR and Beneficial Use team. For the last 10 years, he has administered and managed Santee Cooper's CCR Beneficial Use program and provided project management over multiple CCR pond closures. During his 17 years with Santee Cooper, he has received graduate degrees in business management and environmental management from Charleston Southern University and Duke University. He also coordinates multiple continuous improvement projects to enhance current business processes and identifies other areas of potential improvement. When he isn't coordinating improvement projects, he is supporting Santee Cooper's community outreach programs to help educate and inform South Carolinians about Santee Cooper's role in South Carolina's energy and water sectors. When he isn't working, he enjoys time with his wife, dog, and cat. Both enjoy music, whether it's attending concerts or making their own.