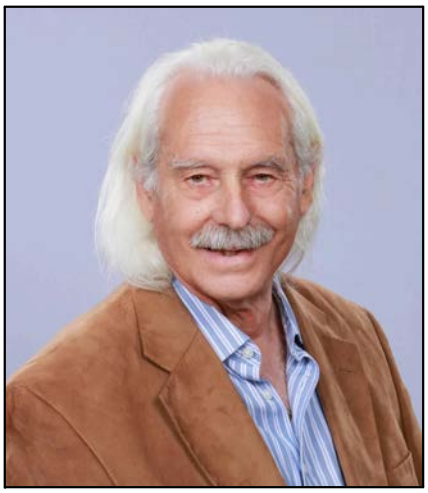
Carolinas Chapter Dinner/Meeting in Charlotte

The Carolinas Chapter of the
Association of Environmental & Engineering Geologists presents

Guest Speaker:



Dr. Chris Stohr
2025-26 Distinguished Jahns Lecturer

Retrospective of the Earthline Hazardous Waste Landfill Failure: A Case Study of Legacy Landfills and Dumps

Dinner and Talk: 5:30-9:00 PM
Thursday, January 29, 2026
Olde Mecklenburg Brewery; Charlotte, North Carolina

Meeting Details

Place:	Olde Mecklenburg Brewery, 4150 Yancey Road, Charlotte, North Carolina
Date:	Thursday, January 29, 2026
Time:	5:30 PM socializing begins, 7:00 buffet dinner, 8:00 Chris's talk
Cost:	AEG members $40; non-members $50; public-sector employees and teachers $20. *Registration will be $5 more at the door*. **AEG Student members free**.

Reservations: Please make reservations by 6:00 PM on Friday, January 23, 2026 at http://aegcarolinas.org/news/
Students - register by January 23 online for $1 or for free by RSVP'ing meeting planner Andrew Beaty at andrewbeaty3@gmail.com

Meeting Drink Sponsors: Terracon Consultants & Enviro-Equipment

Continuing Education: The NCBLG has preapproved AEG Carolinas to offer 1 CE credit for this presentation.

Abstract

Retrospective of the Earthline Hazardous-Waste Landfill Failure, a Case Study of Legacy Landfills and Dumps and How to Reduce Leachate

Subject of a landmark, legal-precedent setting trial, an unlined, hazardous-waste landfill was said by experts 'not to leak in 100 years' however, contaminants were detected in monitoring wells 3 meters from the burial trenches only 3 years after closure. Field and lab tests, and remote sensing measurements showed causes for the 'faster than predicted' contaminant migration from a hazardous waste landfill, but why? Numerous landfills are similarly constructed throughout the world.

Legacy landfills are unlined, thinly-covered cemeteries of waste similarly constructed throughout the world. Most landfill inspections mostly rely upon institutional memory and traditional 'walk over' traverses to identify flaws and deficiencies for written reports. These defects can be better identified and mapped by image processing of freely-available airborne lidar, historical black and white photography and modern color infrared orthoimagery using GIS technology to direct low-cost, spot repairs for maintenance and custodial care to reduce undesired contamination from legacy waste structures.

Chris's Bio

Chris Stohr continues professional and community work after more than 40 years of applied geology, research and humanitarian work in the midwestern USA, Africa and South America. Obtaining a BS in Geology at Saint Joseph's College in Rensselaer IN [minor in Philosophy/Theology] and MS in Engineering Geology at Purdue University developing applications for innovative digital image processing of remotely sensed imagery at the

Laboratory for Applications of Remote Sensing Chris began work at the Missouri Geology and Land Survey performing investigations for dams, sewage lagoons, hazardous and nuclear waste sites, dye tracing, dumps and landfills in the Ozarks and throughout that state; directed an inventory of 3,600 dams; and conducted a site selection study for hazardous waste disposal facilities in Missouri. He worked as part of a Shannon and Wilson team conducting special fault studies, reconnaissance mapping, trench mapping and paleomagnetic studies for nuclear power plant in central Iran using U.S. NRC procedures.

At the Illinois State Geological Survey, Prairie Research Institute, University of Illinois at Urbana-Champaign [ISGS] he participated in or led research on landslides, trench covers, groundwater, agronomic analysis of lake sediments, downhole geophysics, precision agriculture, remote sensing, coastal erosion, close range photogrammetry and terrestrial and aerial laser scanning, archeology, glacial geology, Height Modernization [geodetic surveying], and geologic sequestration of carbon dioxide.

ISGS investigations at the Earthline Industrial Chemical Waste Landfill identified failure mechanisms and the observed difference drainage characteristics of depressions in earthen covers of landfills using post-sunset thermal infrared imagery [ASPRS Autometric Award] which became the focus of a late-career PhD dissertation. Chris has investigated dumps and legacy landfills in Midwestern USA, Egypt, Malawi, and Patagonia, Argentina.

Dr Stohr was a Fulbright Senior Specialist at Beni Suef University, Egypt and participated in and led international humanitarian development projects in Malawi, Africa. He is a Professional Geologist and Certified Engineering Geologist in Illinois and Oregon, and sits on the Illinois Board of Licensing for Professional Geologists. Chris served as thrice-elected member of the Champaign County Board, and twice appointed to serve on the Mahomet Aquifer Council, sits on the Illinois Professional Geologist licensing board, and is an active member of ASPRS, AEG and GSA.