



Carolinas Chapter Dinner/Meeting in Charlotte

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

Guest Speaker:



Cynthia Palomares

2024 Distinguished Jahns Lecturer

How Climate Change Impacts Infrastructure

Dinner and Talk: 5:30-9:00 PM

Thursday, February 8, 2024

Olde Mecklenburg Brewery, Charlotte, North Carolina

Meeting Details

- Place:** Olde Mecklenburg Brewery, 4150 Yancey Road, Charlotte, North Carolina
Date: Thursday, February 8, 2024
Time: 5:30 PM socializing begins, 7:00 buffet dinner, 8:00 Cynthia's talk
Cost: AEG members \$35; non-members \$50; public-sector employees and teachers \$20.
*Registration will be \$5 more at the door. **Students free** w/ college ID.*
Reservations: Please make reservations by 6:00 PM on Friday, February 2, 2024 at
<http://aegcarolinas.org/news/>
Meeting Drink Sponsors: To be announced

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

Abstract

How Climate Change Impacts Infrastructure

The terms global warming and climate change are often used interchangeably, but the two phenomena are different. Global warming is the rise in global mean temperature due to the release of heat trapping gasses like carbon dioxide and methane. Climate change is a more general term that refers to changes in many climatic factors (such as temperature and precipitation) from the global to the local scale. These changes are happening at different rates and in different ways in response to global warming. The timing and amount of rainfall is changing, which is generally resulting in more severe storms. In addition, global warming and associated climate change is shrinking ice caps, melting glaciers, causing water shortages, causing sea level to rise and increasing wildfire risk. The climate is becoming more extreme in response to global warming. As a result, infrastructure (e.g. buildings, roads, power supplies) are being impacted at an alarming rate. A record number of hurricanes, wildfires and floods cost the world \$210 billion in damage in 2020. Specific weather related impacts, and potential mitigation to infrastructure will be discussed.

Cynthia's Bio

Cynthia Delaney Palomares, P.G., P.E. has over 30 years of experience as both an Engineering Geologist and Environmental Engineer. Her last position was as an Adjunct Instructor (retired), at Texas A&M University, Texas Engineering Extension Service (TEEX) in College Station, TX, from 2016 –2020. As an adjunct instructor, Ms. Palomares conducted training courses for environmental professionals for certification of Hazardous Waste Operations and Emergency Response. Prior to working for TEEX, Ms. Palomares was a Project Manager, at Texas Commission on Environmental Quality, Austin, TX, from 1993 –2016. As a project manager in the Industrial & Hazardous Waste Permits Section, Ms. Palomares reviewed and evaluated hazardous waste permit applications, compliance reports and notices of waste management activities for both regulatory and technical completeness to ensure compliance with applicable hazardous waste, radioactive waste and Texas Risk Reduction Program rules and regulations. In addition, Ms. Palomares was a member of the Waste Permits Division Disaster Response team and was also a project manager for RCRA Authorization rule projects that adopt EPA hazardous waste amendments into Texas Administrative Code regulations. Prior to her position as a project manager in the I&HW Permits Section, Ms. Palomares conducted technical reviews and processed applications for underground injection control (UIC) and in situ leachate uranium mining facilities in the UIC/Radioactive Waste Section of the TCEQ. In 2016, Ms. Palomares was recognized for 25 years of service with the State of Texas. Prior to employment with the TCEQ, Ms. Palomares was employed as a staff scientist for Westinghouse Hanford Company in Richland, Washington for 3 years. Ms. Palomares earned a Bachelor of Science in Engineering Geology from Texas A&M University, College Station, TX, and a Master of Science in Engineering Geology from Texas A&M University, College Station, TX in 1990. She is both a licensed Professional Geologist and Licensed Professional Engineer in Texas.

AEG Experience: Ms. Palomares joined AEG in 1986 as a student member of the Lone Star student chapter at Texas A&M University. In 1990, she was awarded the “Best Student Presentation Award” at the Texas Section Spring Meeting. In 2011, she was awarded the “Floyd T. Johnston Outstanding Engineering Geologist Award” at the Texas Section Fall Meeting. In 2022, she was awarded the Association-level “Floyd T. Johnston Outstanding Engineering Geologist Award” at the AEG Annual

Awards Banquet in Las Vegas, Nevada. Service to AEG includes the following positions: Lone Star Student Chapter Officer (1986-1990), Washington Section Field Trip Coordinator (1991-1993), Texas Section Board (2001-2012), 2010 Shlemon Specialty Conference Chair on “Gulf Coast Subsidence and Sea-level Rise”, Governance Committee member (2010-2012), Section/Chapter Support Committee Chair (2012-2018), AEG Strategic Planning Committee Co-Chair (2014-2016) , DEI Committee Member (2020-present), AEG Executive Council (2016-2021), Floyd T. Johnston Outstanding Engineering Geologist Award (2022).