

## Credit Information

### **Saltwater Intrusion into Freshwater Resources**

This webinar is open to the public and is designed to qualify for 3.0 PDHs for professional engineers, 3.0 HSW continuing education hours for licensed architects, and 3.0 HSW continuing education hours for landscape architects in all states that allow this learning method. Please refer to specific state rules to determine eligibility.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida (Provider License No: CEA362), Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700) and North Carolina (S-0130). HalfMoon Education is deemed an approved continuing education sponsor for New York engineers and architects via its registration with the American Institute of Architects Continuing Education System (Regulations of the Commissioner §68.14(i)(2) and §69.6(i)(2)). Other states do not preapprove continuing education providers or courses.

The American Institute of Architects Continuing Education System has approved this course for 3.0 HSW LUs (Sponsor No. J885). Only full participation is reportable to the AIA/CES.

The Landscape Architecture Continuing Education System has approved this course for 3.0 HSW PDHs. Only full participation is reportable to the LA CES.

HalfMoon Education is an approved CM Provider with the American Planning Association. This course is registered for CM|3 for Certified Planners.

### **Working with the IECC's 2021 Climate Zone Maps**

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The International Code Council has approved this event for .3 CEUs in the specialty area of Building (Preferred Provider No. 1232).

### **Calculating Embodied and Operational Carbon Footprints for Buildings**

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The International Code Council has approved this event for .3 CEUs in the specialty area of Sustainability (Preferred Provider No. 1232).

HalfMoon Education is an approved CM Provider with the American Planning Association. This course is registered for CM|3 for Certified Planners.

*Attendance will be monitored, and attendance certificates will be available after the webinar for those who attend the entire course and score a minimum 80% on the quiz that follows the course (multiple attempts allowed).*

**Please visit these course listings online to learn about credits for attending these programs On-Demand.**

## Climate and Environmental Issues Webinars

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## Live, Interactive Webinars

### **Saltwater Intrusion into Freshwater Resources**

- Online | Friday, April 19, 2024 | 9:00 am - 12:15 pm CDT

### **Working with the IECC's 2021 Climate Zone Maps**

- Online | Friday, April 26, 2024 | 9:30 am - 12:30 pm CDT

### **Calculating Embodied and Operational Carbon Footprints for Buildings**

- Online | Friday, April 26, 2024 | 1:00 - 4:00 pm CDT

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## HalfMoon Education Live Webinars

# Climate and Environmental Issues



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Architects: 3.0 HSW CE Hours | AIA: 3.0 LU | HSW

Landscape Architects: 3.0 HSW CE Hours | LA CES: 3.0 HSW PDHs

Certified Planners: CM|3

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International Code Council: .3 CEUs (Sustainability)

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Tuition: \$159 per registrant

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## Agenda:

Science of saltwater intrusion and saltwater intrusion history  
Causes of saltwater intrusion

- Groundwater pumping
- Sea level rise
- Storm surge
- Climate change

Case studies in the U.S.  
Strategies for preventing and mitigating saltwater intrusion

## Presented by

**James Heiss, PhD** is an assistant professor of Hydrogeology in the Department of Environmental, Earth, and Atmospheric Sciences at the University of Massachusetts - Lowell. His research entails coastal groundwater-surface water interactions, climate change and sea level rise impacts to coastal groundwater resources, and chemical fluxes along the land-sea transition zone. His current research focuses on the hydrologic forcings (waves, tides, currents, extreme precipitation, and storm surge) that move water and chemicals between aquifers and nearshore surface water bodies. He explores these hydrologic processes using field experiments, numerical models, and quantitative synthesis of large datasets. Prior to joining UMass Lowell, Dr. Heiss was a postdoctoral fellow at the National Academy of Sciences in Washington, DC. He holds MS and PhD degrees in Geology from the University of Delaware.

**Christopher J. Russoniello, PhD** is a hydrogeologist in the University of Rhode Island Department of Geosciences. His work focuses on coastal groundwater, saltwater intrusion, surface water/groundwater interactions, cold-region hydrology, and the impacts of rising seas and changing climate on freshwater resources. Prior to joining URI, he earned MS and PhD degrees in Geology from the University of Delaware, completed a postdoctoral fellowship at Syracuse University, and was assistant professor at West Virginia University. Mr. Russoniello has served on 15 graduate committees, mentored many undergraduate researchers and is current and former mentor to two NSF EAR postdoctoral fellows. Teaching interests focus on the coast, its complex processes, the interaction between the ocean and groundwater, and environmental data skills. Outside work Mr. Russoniello enjoys playing on water (liquid and frozen) and spending time with his wife, daughter, and dog.

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## Agenda:

Climate Science and Climate Zones

- Defining climate
- What a climate zone is (and is not)
- 2003 IECC climate zones
- 2021 IECC climate zones

Working in a Changing Climate with Shifting Climate Zones

- Climate impact on design and construction decisions
- Building for resilience
- Considering carbon footprint, embodied and operational carbon
- Location
- Site design
- Building shells
- Energy efficiency
- HVAC systems
- Anticipating future climate changes

## Presented by

**James D'Aloisio P.E., LEED AP** is a principal with Klepper, Hahn & Hyatt, a structural engineering, landscape architecture, and building envelope services firm in East Syracuse, New York. A graduate of Rensselaer Polytechnic Institute, Mr. D'Aloisio is a registered professional engineer in New York and Massachusetts. He is a member and past president (1997-1998) of the American Society of Civil Engineers (ASCE) Syracuse Section, and a member of the American Institute of Steel Construction (AISC), the American Concrete Institute (ACI), the National Society of Professional Engineers (NSPE), and the Structural Engineers Association of New York State (SEAoNY). Mr. D'Aloisio is a member of ASCE/SEI's Frost-Protected Shallow Foundations Committee, the Structural Condition Assessment of Existing Buildings Committee, and the Sustainability Committee, where he currently serves as co-chair of the Thermal Bridging Working Group. Mr. D'Aloisio received the Order of the Engineer at Syracuse University in 1997. His 30-plus years' experience as a consulting structural engineer has primarily involved the design of new building structures, additions, and modifications, and analyses, assessments, and investigations of structures and facades. Mr. D'Aloisio has performed structural condition reviews of over 15 million square feet of buildings and has performed over 150 structural forensic investigations. He has presented over 400 times.

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# Calculating Embodied and Operational Carbon Footprints for Buildings

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International Code Council: .3 CEUs (Sustainability)

## Agenda:

What is a carbon footprint?

- Defining embodied carbon: Meaning and context
- Defining operational carbon: Meaning and context

Calculating embodied carbon emissions for buildings

- Life Cycle Assessment (LCA) Overview
- LCA modules and project scope
- LCA tools

Calculating operational carbon emissions for buildings

- Operational energy measurement for existing buildings
- Operational energy estimation for new and existing buildings
- From energy to carbon: fuel source matters

Avoiding scope confusion: embodied vs. operational

Managing the carbon that you measure:  
How to take the next steps to reduce carbon emissions in buildings

## Presented by

**Matt Jungclaus, P.E.** is an independent consultant and a PhD researcher with the Living Materials Laboratory at the University of Colorado Boulder, where he develops whole-building embodied carbon benchmarks. His research focuses on life cycle assessment, building material flows, and computational analysis. Prior to joining the University of Colorado, Mr. Jungclaus was a manager at Rocky Mountain Institute (RMI), where he focused on reducing embodied and operational carbon in the built environment. His work at RMI included leadership in the Department of Energy's Zero Energy District Accelerator, policy work with NYSERDA and the City of Pittsburgh, developing a net-zero energy roadmap for the McDonald's Corporation, delivering integrative design workshops for federal and private sector clients, and creating industry-leading reports focused on zero energy buildings and carbon-reducing policies. Prior to joining RMI, Mr. Jungclaus served as an energy auditor and project manager for many public sector, commercial, and residential building retrofit projects. His core competencies lie in life cycle assessment, building science (including energy auditing and modeling), architectural and mechanical engineering, teaching, and project management.

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