

# Resilient Connecticut Climate Adaptation Summit

Tuesday, November 12, 2019

9:00 AM - 4:00 PM



## Welcome

CIRCA is hosting the first annual Resilient Connecticut Summit at Fairfield University. Commissioner Katie Dykes from Connecticut’s Department of Energy and Environmental Protection will provide a welcome and Shaun O’Rourke, Rhode Island Chief Resiliency Officer will give a keynote address entitled, *Resilient Rbody: Building Climate Resilience in Rhode Island*.

At the Summit, participants will:

- Hear about the structure and progress for the Resilient Connecticut project.
- Learn about innovative resilience planning.
- Provide feedback on key planning and technical elements of the project.

In the afternoon, two breakout sessions will focus on “Developing Capacity Building Resilience Tools for Connecticut”. Topics will include a vulnerability assessment demonstration and charette, climate and public health, planning for resilient transit oriented development, and examples of integrated flood risk. Panelists include diverse participation from academic researchers, nonprofit organizations, state and federal agency staff. Audience members will have time for questions and input during each breakout session.

## Funding

Funding for this project was provided by the United States Department of Housing and Urban Development through the Community Block Grant National Disaster Recovery Program, as administered by the State of Connecticut, Department of Housing.

## Event Location

**Fairfield University**  
Barone Campus Center, Oak Room  
1073 N. Benson Road, Fairfield, CT

[Details on page 6](#)

## Event Program

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## Agenda

9:00 – 9:30 AM	<b>Registration</b> (coffee provided)
9:30 – 9:45	<b>Welcoming Remarks</b> <ul style="list-style-type: none"> <li>Christine Siegel, Provost and Associate Vice President for Academic Affairs, Fairfield University</li> <li>Jim O'Donnell, CIRCA Executive Director and Professor of Marine Sciences, University of Connecticut</li> <li>Shanté Hanks, Deputy Commissioner, Connecticut Department of Housing</li> </ul>
9:45 – 10:15	<b>Welcome Address</b> Katie Dykes, Commissioner, Connecticut Department of Energy and Environmental Protection
10:15 – 11:45	<b>Progress Toward a Resilient Connecticut</b> Moderated by John Truscinski, CIRCA Director of Resilience Planning <ul style="list-style-type: none"> <li>State Agencies Fostering Resilience (SAFR) Roundtable and Panel Q&amp;A               <ul style="list-style-type: none"> <li>Brenda Bergeron, Legal Advisor, Division of Emergency Management and Homeland Security</li> <li>George Bradner, Director, Property and Casualty Division, State of Connecticut Insurance Department</li> <li>Rebecca French, Director of Resilience, Connecticut Department of Housing</li> <li>David Kooris, Deputy Commissioner, Connecticut Department of Economic and Community Development</li> <li>Kim Lesay, Transportation Assistant Planning Director, Connecticut Department of Transportation</li> <li>Lori Mathieu, Public Health Section Chief, Drinking Water Section, Connecticut Department of Public Health</li> <li>Brian Thompson, Director, Land and Water Resources Division, Connecticut Department of Energy and Environmental Protection</li> </ul> </li> <li>Resilient Connecticut Project Overview and Progress - John Truscinski</li> </ul>
11:45 – 12:15	Lunch (provided)
12:15 – 12:45	<b>Keynote Address</b> <ul style="list-style-type: none"> <li>Introduction - Alex Felson, CIRCA Deputy Director and Director of Resilience Design</li> <li><i>Resilient Rhody: Building Climate Resilience in Rhode Island</i> - Shaun O'Rourke, Rhode Island Chief Resiliency Officer</li> </ul>
12:45 – 1:15	<b>Resilient Connecticut Stakeholder Engagement and Capacity Building</b> <ul style="list-style-type: none"> <li>Miriah Kelly, UConn Assistant Extension Educator</li> <li>Katie Lund, CIRCA Director of Engagement</li> </ul> <p>In this session Dr. Miriah Russo Kelly will present on findings from data collected during and immediately following the May 22 Resilient Connecticut event. She will also describe additional efforts by the Resilient Connecticut project to be inclusive of broad stakeholder interests. Katie Lund will conclude with a description of the breakout sessions to follow.</p>
1:15 – 1:30	Break
1:30 – 3:45	<b>Breakout Sessions</b> (details on pages 3-5): <b>Developing Capacity and Building Resilience Tools for Connecticut</b>
3:45 – 4:00	<b>Closing Remarks and Next Steps</b> Alex Felson, CIRCA Deputy Director and Director of Resilience Design



**Welcome Address**

Katie Dykes was nominated by Governor Ned Lamont to serve as the Commissioner of Connecticut’s Department of Energy and Environmental Protection (DEEP), and was confirmed on February 20, 2019. Katie previously served as Chair of the Connecticut Public Utilities Regulatory Authority (PURA) from 2015-2018, and as Deputy Commissioner for Energy at Connecticut DEEP from

2012-2015. Katie joined CT DEEP in March 2012 after prior service as Deputy General Counsel for the White House Council on Environmental Quality and as a Legal Advisor to the General Counsel for the U.S. Department of Energy. She is a graduate of Yale College and the Yale Law School.



**Keynote Address**

Shaun O’Rourke is Director of Stormwater and Resiliency at Rhode Island Infrastructure Bank (RIIB) and Chief Resilience Officer for the State of Rhode Island. Prior to joining RIIB, Shaun served as the National Green Infrastructure Director at The Trust for Public Land and was Director of Sustainable Design at the Boston Architectural College, where he continues to serve as a member of the faculty. He has also

worked at AECOM in New York City as an Ecological Designer focusing on public sector infrastructure projects. Shaun holds a Master of Landscape Architecture degree from SUNY College of Environmental Science and Forestry and a B.S from University of Vermont.

**Breakout Sessions Summaries**

Track Topics and Timing	1:30 - 2:30 (Session A)	2:45 – 3:45 (Session B)
<b>Track 1</b> (Oak Room) <b>Regional resilience planning</b>	Resilient Transit Oriented Development	Integrated Flood Risk Planning
<b>Track 2</b> (Room 200) <b>Climate and public health</b>	Drinking Water Vulnerability	Climate & Health in Connecticut
<b>Track 3</b> (Dogwood Room) <b>Technical tool development</b>	Vulnerability Assessment Demonstration & Application	Zones of Shared Risk Charette

**Session A - 1:30 - 2:30**

**Track 1 - Resilient Transit Oriented Development**

**Facilitator:** Alex Felson, *CIRCA Deputy Director and Director of Resilience Design*

Coastal adaptation will be expensive and complicated and often implicates private property, public spaces, infrastructure and state concerns. Framing climate adaptation as an economic development approach positions costly adaptation investments as urban redevelopment and provides value-added solutions for municipalities. This session will feature a presentation and discussion on the concept of “Resilience Corridors”. Resilience corridors combine transit-oriented development (TOD) as an investment framework, configured as a corridor reinforcing evacuation routes, thus aligning economic investment with egress linking critical facilities (hospitals, fire stations, power generation), utilities and infrastructure, and other forms of emergency preparedness and disaster management strategies into investment zones. The resilience corridor creates an urban development strategy that the state can target to avoid investing in project areas with repetitive flood loss homes or low-lying areas that provide short-term value.

**Panelists:** Norman Garrick, *Professor, UConn Department of Civil and Environmental Engineering*, David Kooris, *Deputy Commissioner, Connecticut Department of Economic and Community Development*, and David Elder, *Supervising Transportation Manager, Connecticut Department of Transportation*

[Breakouts Continued...](#)

## Track 2 - Drinking Water Vulnerability

**Facilitator:** Katie Lund, *CIRCA Director of Engagement*

With changing precipitation patterns, sea level rise, and drought anticipated in the coming decades, state officials and local planners are considering ways to address the impacts of climate change on Connecticut's drinking water supply. This session will feature remarks from Lori Mathieu, Public Health Section Chief at the Connecticut Department of Public Health. The session will also include an overview of recent climate trends and projections for precipitation patterns and how these will impact water systems state-wide, highlights from Connecticut's new Drinking Water Vulnerability Assessment and Resilience Plan, survey feedback from community water systems managers, recommendations for regional drinking water resilience, and discussion of upcoming water system vulnerability assessment requirements of America's Water Infrastructure Act.

**Panelists:** Lori Mathieu, *Public Health Section Chief, Connecticut Department of Public Health, Drinking Water Section*, David Murphy, *Manager of Water Resources Planning, Milone & MacBroom*, and Christine Kirchhoff, *Professor, UConn Department of Civil and Environmental Engineering*

## Track 3 - Vulnerability Assessment Demonstration and Application

**Facilitator:** Joanna Wozniak Brown, *Senior Resilience Planner, CIRCA*

An understanding of the spatial nature of an area's physical, biological, and social characteristics is needed to identify strategies for responding to sea-level rise. To meet this need, the Resilient Connecticut project is developing a spatial index-based approach to model vulnerabilities for Connecticut coastal towns in multi-scale and with multi-criteria. This session will describe the methodology and application of CIRCA's interactive vulnerability assessment beta-viewer. A demonstration will be given to show how impacts are reflected in bio-physical and social vulnerabilities that affect a selected coastal, regional, city, or even a user-defined area. The demonstration uses GIS layers illustrating spatial information including coastal exposure, natural habitats, salt water intrusion, critical facilities, and transportation networks. Jessica LeClair from Sustainable CT joins as a panelist to highlight how their certification program addresses resiliency and municipal vulnerability assessment. Panelists and the audience will then discuss benefits and concerns about this tool for regional, municipal, and site scale planning to help tackle the challenges of future sea-level rise and associated flooding.

**Panelists:** Jessica LeClair, *Program Manager, Community Engagement & Outreach, Sustainable CT*, Yaprak Onat, *Assistant Director of Research, CIRCA*, and Caterina Massida, *Data Analyst, CIRCA*

Breakouts Continued...



## Session B - 2:45 - 3:45

### Track 1 - Integrated Flood Risk Planning

**Facilitator:** Yaprak Onat, *CIRCA Assistant Director of Research*

Integrated flood risk analysis is a decision support tool to guide flood management policies and improve flood mitigation activities. This session will overview a framework for regional, municipal, and site scale planning to tackle the challenges of future storms, sea-level rise, and riverine flooding. CIRCA will present an approach to representing riverine and coastal flood extents using fine-scale resolution flood modeling of extreme rainfall, tidal elevation, storm surge, currents, surface waves, and projected sea surface elevations including validation with real-time water level measurements. A facilitated session will include a panel discussion with experts to address needs that support flood risk planning.

**Panelists:** Emmanouil Anagnostou, *Professor, UConn Department of Civil and Environmental Engineering*, James O'Donnell, *Professor, UConn Department of Marine Sciences and CIRCA Executive Director*, Jeff Caiola, *Assistant Director of Land and Water Resources Division, CT DEEP*, and Sheila Warren, *USACE New England District (NAE) Planning Division - NAE Silver Jackets Coordinator*

### Track 2 - Assessments and Gaps in Knowledge of Climate and Health in Connecticut

**Facilitator:** John Truscinski, *CIRCA Director of Resilience Planning*

Coordination between public health professionals, climate and health stakeholders, and university researchers is needed to address the impacts of climate change on the health of Connecticut's vulnerable populations and to develop strategies to promote health resilience. This session will feature a brief presentation of climate and health assessments for Connecticut and a roundtable discussion of current climate and health research activities and needs for Connecticut, as well as data gaps. It is geared towards individuals and organizations that are currently, or wish to be, engaged in research and assessment activities of climate and health in Connecticut.

**Panelists:** Laura Bozzi, *Director of Programs, Yale Climate and Health Initiative*, and Laura Hayes, *Epidemiologist, Connecticut Department of Public Health*

### Track 3 - Zones of Shared Risk Charette

**Facilitator:** Alex Felson, *CIRCA Deputy Director and Director of Resilience Design*

A Zone of Shared Risk is an area of land with groups of people who face common challenges to climate change. This can include the houses, land, infrastructure, hydrology, ecology, and social elements. Risks are often shared among or between groups of people that may have different perspectives and priorities for coastal resilience. This session will include an overview of the approach to identifying zones of shared risk using historical information, elevation models, flood projections, transportation, land use, social characteristics, and urban and ecological systems. The session will present three towns as a case study and have an interactive feedback session about risks and opportunities for overlapping systems that contribute to zones of shared risk.

**Panelists:** Peter Miniutti, *Associate Professor & Director of UConn's Community Research & Design Collaborative*, Mariana Fragomeni, *Post-doctoral Scholar at UConn's Community Research & Design Collaborative*, Tao Wu, *Ph.D. Student at UConn's Department of Plant Science & Landscape Architecture*, and Natalie Miniutti, *Instructor at UConn's Department of Plant Science & Landscape Architecture*

## Location & Directions

### Address

**Fairfield University**  
Barone Campus Center, Oak Room  
1073 N. Benson Road, Fairfield, CT

### Fairfield University Campus Map

The campus map, below, shows the ideal location to park and the building the Summit will be held.

Additional directions and campus facilities can be found at [www.fairfield.edu/directions/](http://www.fairfield.edu/directions/).



### About CIRCA

The mission of the Connecticut Institute for Resilience and Climate Adaptation (CIRCA) is to increase the resilience and sustainability of vulnerable communities along Connecticut's coast and inland waterways to the growing impacts of climate change on the natural, built, and human environment.

### Contact

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### Directions

#### From New York via I-95 North:

Take exit 22 in Connecticut - Round Hill Road. Continue straight through the stop sign at the end of the ramp. At the traffic light, take a left onto North Benson Road (Rte. 135) and continue straight for 0.8 miles (through two traffic lights.) The sign for the main entrance to Fairfield University will be on the left.

#### From New Haven via I-95 South:

Take exit 22 in Connecticut - North Benson Road. Turn right at the end of the ramp onto North Benson Rd. (Rte. 135). Go straight for 0.8 miles (through two traffic lights). The main entrance to Fairfield University will be on the left.

#### From Hartford via I-91:

Take I-91 South to I-95 South in New Haven. Take exit 22 in Connecticut - North Benson Road. Turn right at the end of the ramp onto North Benson Rd. (Rte. 135). Go straight for 0.8 miles (through two traffic lights). The main entrance to Fairfield University will be on the left.

#### From Hartford and New Haven via Merritt Parkway (Rte. 15):

Take exit 44, take a quick left off the ramp, then take another quick left onto Black Rock Tpke. (Rte. 58), proceed 2 miles to Stillson Rd. (Rte. 135) and turn right. Bear left, at the second light, onto North Benson Road. The University entrance will be on your right.

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