

Having trouble viewing this email? [Click here](#)

UConn

The Resilience Roundup highlights CIRCA's presence in the news, provides links to recent local/state/national news articles related to resilience and adaptation, and announces upcoming events and seminars.



Resilience Roundup

December 8, 2015

A service of the Connecticut Institute for Resilience and Climate Adaptation (CIRCA)

[CIRCA in the News](#)

- **November 30, 2015** - *State Gets Good Grades For Climate Change Preparations*, Hartford Courant
- **November 23, 2015** - *Bridgeport election sparks anxiety over big environmental plans*, CT Mirror

[Local and State News Clips](#)

- **December 3, 2015** - *Malloy: Connecticut Signs Onto Global Climate Pact*, Hartford Courant
- **November 30, 2015** - *Videos explore Yale research on climate change in Connecticut, the region, and the world*, Yale News
- **November 30, 2015** - *US Park Service releases report on climate change response*, CT Post
- **November 24, 2015** - *The Sand Has Disappeared*, Branford Eagle New Haven Independent
- **November 19, 2015** - *Connecticut, The Microgrid State*, Energy Manager Today
- **November 18, 2015** - *Are You A Hurricane Diehard?*, Branford Eagle New Haven Independent

[National News Clips](#)

- **December 4, 2015** - *Small Countries Fight For Their Lives In Paris, But Have Little Control*, Climate Progress
- **December 2, 2015** - *Rising seas are claiming a vulnerable nation*, The New York Times
- **December 1, 2015** - *These Countries Have The Most To Lose If Paris Climate Talks Fail*, HuffPost Green
- **November 23, 2015** - *Watch How Rising Sea Levels Could Swallow Coastal Cities*, HuffPost Green
- **November 23, 2015** - *5 Of The Deadliest Weather Disasters Of 2015*, HuffPost Green

[Announcements](#)

- **December 11 & 15, 2015** - Exploring Climate Solutions Webinar Series. Governor's Council on Climate Change. Upcoming webinars on December 11 & 15. [Register here.](#)
- **January 15, 2015** - Next review date for CIRCA Matching Funds Program. Up to \$100,000 available. For more information go to <http://circa.uconn.edu/funds.htm>
- **February 3, 2015** - Applications due for NFWF Five Star/Urban Waters Restoration [Program](#)

CIRCA in the News

[November 30, 2015 - State Gets Good Grades For Climate Change Preparations, Hartford Courant](#)

Connecticut is doing better than most other states in preparing for the potentially dangerous impacts of climate change, but must do more to deal with the threat of coastal flooding, according to a new report.

The study, entitled "States at Risk," lists Connecticut among the top five states in the nation that are taking "strong action to prepare for future risks" resulting from climate-related events such as heat waves, fires, droughts and floods.

Overall, the analysts from Climate Central and ICF International gave Connecticut an A-minus grade. The one area listed as a weakness involved the state's efforts to evaluate and prepare for the risks of coastal flooding along Long Island Sound. In that category, Connecticut only received a B in the report's rating system.

The study attempted to make a quantitative assessment of climate change preparations by all 50 states, and graded each state in five key areas: transportation, energy, water, health and communications. Each state was also evaluated on how it is preparing for different types of climate events, including extreme heat, drought, wildfires, inland flooding and coastal flooding. Jessie Stratton, a top policy official with the state Department of Energy and Environmental Protection, said Connecticut officials are pleased with the overall ranking for this state, but don't agree with the lower grade on coastal flooding.

Stratton said Connecticut has made major strides to deal with coastal flooding since it was hit by major storms - Hurricane Irene in 2011 and Superstorm Sandy in 2012. "I don't think [the authors of the new study] caught everything we've done," Stratton said.

More than 55,000 people in Connecticut live in areas that would be at risk during a once-in-100-years coastal flood, according to the report. That coastal flood area will grow larger by 2050, the study warned, putting another 30,000 state residents at risk.

California, Massachusetts, New York and Pennsylvania also received grades of A or A-minus. States receiving a failing grade under the report's rating system were Arkansas, Mississippi, Missouri, Nevada and Texas.

The study warned that the "most pervasive threat to the 48 states in the continental U.S. is that of extreme heat." Heat waves in this nation are expected to more than triple in frequency by 2050 in every state except Oregon, according to the report.

Climate Central is a nonprofit group of scientists and journalists focused on researching and reporting on the impacts of climate change, according to its website. ICF International is a for-profit environmental engineering and consulting firm hired to help with the States at Risk study. Connecticut was ranked one of the least at risk from extreme heat events. By 2050, the report projected, Connecticut is likely to see more than 10 days of "dangerous" heat waves each year. "We are delighted by Connecticut's progress in comparison with its neighbors," said Louis Burch, a spokesman for the Citizens Campaign for the Environment. "But our state still has work to do."

"Connecticut needs to do some more coastal flooding vulnerability assessments" across all five of those critical categories, Burch said.

But Stratton defended the state's efforts to prepare for climate change along the shoreline. She said the "big glaring hole" in the States at Risk study was that "it doesn't even mention the Connecticut Institute for Resiliency and Climate Adaptation (CIRCA)."

The organization, located at the University of Connecticut's Avery Point campus in Groton, was created by Gov. Dannel P. Malloy's administration in 2014 using a combination of state and federal funding. The center is researching the best ways for the state and shoreline communities to adapt to climate change and protect key infrastructure and properties.

Stratton said the center's work "addresses a lot of what [the report] says are our weaknesses." According to the States at Risk study, Connecticut hasn't done well in conducting coastal flooding vulnerability assessments for key areas such as energy, health and water supplies.

Stratton said more than half the cities and towns on the Long Island Sound's coast have already completed their vulnerability assessments, and that the rest are now working on risk evaluations.

The report does credit Connecticut for passing legislation requiring municipalities to consider the impact of sea level rise, erosion and coastal flooding. But Stratton said it failed to mention CIRCA's development of mathematical models to predict how the Sound's sea levels will rise in coming decades.

"The models appear to be accurate to about 2050," said Stratton, "but the uncertainty increases after 2030."

According to National Oceanic and Atmospheric Administration records, the sea levels along Connecticut's coast have risen by close to six inches since 1960. Local officials have repeatedly pointed out that low-lying coastal areas that rarely flooded in the past during significant storms are now routinely under water when big storms hit the Sound.

Karl Wagener, executive director of the state Council on Environmental Quality, agreed that a key reason why Connecticut is doing better than most states in terms of coastal flooding is because of CIRCA's work.

[November 23, 2015 - Bridgeport election sparks anxiety over big environmental plans. CT Mirror](#)

Bridgeport - When Bridgeport Mayor Bill Finch leaves office next month he leaves behind a city transforming itself into a nationally recognized environmental showpiece.

Cash-strapped, with a low-income population more concerned with getting food on the table than how to recycle its scraps, and with finding money to pay the electric bill rather than focusing on how that power was generated, he managed to create a broad, long-range energy and environmental sustainability vision: BGreen 2020.

What's more, since BGreen was introduced in 2010, he managed to implement many of its dozens of projects, from simple community gardens to state-of-the-art clean energy.

"If I told you when I first got elected that we were going to build North America's largest fuel cell in Bridgeport, everybody would have had a laugh or a yawn. But we did it," said Finch, who received the Environmental Protection Agency's national Climate Leadership award earlier this year. "I pinch myself sometimes because I can't believe half this stuff ever happened."

But many more of BGreen's projects as well as environmental initiatives outside the plan are not fully implemented. Some are still winding through regulatory and other approval processes at the state or city level. Others are still looking for funding. Some, like a far-reaching reinvention of

Bridgeport as a climate change-resilient city, are barely beyond concepts.

Without Finch as chief advocate and arm-twister, there is worry among groups collaborating on projects, business leaders and others about how many will survive. And there is even concern that Mayor-elect Joseph P. Ganim, who campaigned on cutting taxes, could choose to pull the plug on some of the projects - especially those that do or could involve city money, or just ignore the BGreen blueprint.

Ganim did not respond to repeated interview requests from the Connecticut Mirror. During the campaign, neither he nor his campaign website addressed issues related to energy, environment or climate change.

Finch did not specifically say he was worried, but rattled off some of the biggest-ticket items still in some stage of limbo. "We're building a thermal loop, we hope. We're building a second train station, we hope. We're building a bio-gas digester, we hope," he said. "The incoming administration has never said whether they understand these or care about them."

Finch is not the only one wondering. "I'm very concerned," said Paul Timpanelli, president and chief executive officer of the Bridgeport Regional Business Council, who called Finch's environmental action in Bridgeport - arguably his signature initiative - "stellar" and "astounding." Timpanelli has been with the council for 27 years, which includes Ganim's earlier tenure as mayor before he went to prison for corruption in office. "Because of what he's done and where he's been the last seven, eight, nine years, he's probably not as up to speed as I think he might need to be, but he's a quick learner; he's a smart guy," Timpanelli said of Ganim. "Hopefully we're going to be able to convince him of the appropriateness of some of the things that are under way."

Joe McGee, vice president for public policy at the Business Council of Fairfield County, who called Finch's record "enviable," said: "I think you've got to give Ganim some time to just digest all this." But, he added: "The jury's out. Everyone I think is concerned."

With \$10 million from the federal government in hand to plan the new train station, Ganim has indicated it's a worthwhile project. But it's still tens-of-millions-of-dollars away from completion. The digester is an anaerobic digester being developed by Anaergia, a Canadian company. It would take separated sludge from the wastewater treatment plant as well as food waste and turn them into enough electricity to run the treatment plant and then some. It is most of the way through the permitting process.

With no city money at stake it would seem to be a "go" with a completion target of sometime in 2017.

"You have to say - anything is possible," said Bill Robinson, acting general manager at the Water Pollution Control Authority. "Right now is the ultimate rumor time, and any and all of the above is true."

But he thought the digester would happen. "The risk is on the developer," he said. "I don't see too much exposure, particularly on the city side. My hope is that we'll get cheaper electric rates and lower sludge disposal costs. That would help stabilize the WPCA rates."

The so-called thermal loop is a \$30 million heat recapture project that takes waste heat from the newest of the three fuel cell systems in the city, the waste-to-energy plant and potentially other energy sources and converts it into heat and hot water for a large downtown district.

Daniel Donovan, cofounder of the project's developer, Nupower, said even without a final agreement from the city to buy heat or a coordination plan - which includes digging up streets - he was confident the project would be completed, given the support it's had from other Bridgeport politicians and because of its environmental and financial benefits. "The new administration will recognize that," he said.

Some of the biggest and most ambitious environmental projects are outside the BGreen blueprint. Bridgeport was a finalist in the national competition Rebuild by Design, submitting a

comprehensive re-imagining of the city in the face of climate change and in the wake of serious flooding during Tropical Storm Irene and storm Sandy. Last year the city received \$10 million, a small portion of the available funding.

Finch wanted to put it toward planning and early engineering of a levee and a floodgate to protect the city and connect its Black Rock neighborhood with Seaside Park. But the project has not been approved by the City Council, nor is there money in place to actually build it.

Bridgeport, along with New Haven, is key in another funding contest - the National Disaster Resilience Competition - with up to half-a-billion federal dollars at stake.

The Connecticut Institute for Resilience and Climate Adaptation is handling the application for the state, which would actually get the money. And now that the proposal has made it through one round of elimination, the City Council has signed off on the required partnership agreement with the state.

But if the application makes it to the next round, the city will have to be far more involved. "These initiatives transcend administrations," said April Capone, who is handling the application process for CIRCA as part of her intergovernmental affairs duties at the Office of Policy and Management. "Yes, we did have a mayor who was very progressive. This does not hinge on one elected official."

Eco-Tech, parks and green infrastructure

Among BGreen's other major concepts is the Eco-Technology Park. Right now it is a loose assortment of environmental businesses, including Park City Green, a mattress recycling facility to service mandatory mattress recycling in Connecticut; Tri-State Flexi-Pave, which manufactures environmentally friendly permeable pavement from used tires; and Bridgeport Biodiesel, a refinery that repurposes cooking oil as fuel.

Whether a Ganim administration will continue the Eco-Technology Park concept is unknown. A 9,000-panel, 2.2 megawatt solar installation that borders the technology park and Seaside Park on the city's closed landfill is just about done, and the newest fuel cell - 2.8 megawatts - is running. Both are owned by United Illuminating. There is also a fuel cell at the University of Bridgeport and a 15-megawatt installation, the largest fuel cell power plant in North America, that is owned by Dominion and sits adjacent to the rail line.

There are plans to add a medical waste processing facility - something the Business Council's Timpanelli believes should stay on the must-do list.

Timpanelli has gone from skeptic to true believer that green projects would be the economic drivers Finch claimed. He now points to the 15-megawatt fuel cell, which he said generates more tax revenue for the city per square foot than any other piece of property, and he points to the Eco-Technology park.

"The numbers are clear," he said. "In Bridgeport in the last 18 months, we've created 400 new job opportunities in the green arena. Four hundred job opportunities in a city like Bridgeport is a big number."

BGreen also includes a massive parks master plan that is underway in bits and pieces. The most prominent piece so far was the reopening of Pleasure Beach last summer. It also included a wildlife protection component using 10 guards hired as part of the summer youth employment program.

That did require some city money and logistical support. The plan had been for more guards this summer, but it's unknown what the Ganim administration will agree to.

"We'll find a way to work with him," said Stuart Hudson, executive director of Audubon CT, the organization that spearheaded the Pleasure Beach work. "That's at least how we want to start. I can't imagine why any mayor would want to go back on the success that's happening there."

But Hudson and other environmental advocacy groups are mindful that they had a huge advocate in Finch, a relationship that may or may not continue with Ganim. Given the uncertainty, many groups have begun meeting with each other to build bottom-up strategies to keep projects going.

The Nature Conservancy is beginning a large mapping project to help groups coordinate projects for the greatest impact. "The turnover that's most alarming for us are some of the key staff in the city that are appointed or closely aligned with the existing mayor," said Adam Whelchel, the Conservancy's Connecticut director of science.

Whelchel said he sees the project as more about the health and vitality of the community than strictly environmental. "I don't see how any leader, if they want to lead effectively and remain in office, cannot embrace that," he said.

The Trust for Public Land is working with two park renovation projects. One is at Johnson Oak Park and the adjacent Tisdale School. The city will have to match a \$375,000 federal grant, but the project - which will top \$4 million - has not broken ground yet while additional private money is raised. A second project at the Classical Studies Magnet Academy is still in early planning, so its future is even less clear.

Connecticut Fund for the Environment/Save the Sound in conjunction with the Water Pollution Control Authority has several major green infrastructure projects in the pipeline, so to speak. They are designed to help address an existing requirement that the city begin to separate its stormwater runoff from its sewage - a situation known as combined sewer overflow.

The full separation plan has not been finalized or implemented yet. In the meantime, green infrastructure projects are seen as ways to lower the amount of runoff so there will be a smaller problem to address.

The furthest along is a project at the Beardsley Zoo to help deal with flooding in the parking lot and the entrance. "I don't think there's any risk - knock on wood," said Kendall Barbery, green infrastructure program manager for the Fund.

Less developed are four downtown green infrastructure projects. One, to alleviate flooding around Housatonic Community College's parking structure, is awaiting the last of its approvals. State money from the Clean Water Fund has gone into the planning, and there is more available for construction, estimated at \$300,000.

But the other three downtown projects are still being fine-tuned by the Department of Energy and Environmental Protection. Robinson, at the Water Pollution Control Authority, said there are another four to six projects he'd like to see done.

"I can't say that I'm not concerned," said Barbery of the Fund for the Environment. "But what I can say is I think that Finch has really helped to raise awareness about these issues so there may be a little bit of a lasting legacy.

"There's a lot of groups that are on the ground working on these projects and are going to be committed to seeing them through regardless of the political climate. Is it going to be more difficult? Maybe."

Curt Johnson, executive director of Save the Sound, said his organization will consider legal action if there is serious backsliding by Bridgeport on the order to remedy the combined sewer overflow problem. But he worries about the commitment of the new administration.

"We have been happy and pleased to collaborate with the city and the WPCA on what will be the largest green infrastructure retrofit project in Connecticut," he said. "What we're very concerned about is what will happen. Is this the end? Is this the last deal? Or is this the beginning?"

Local & State News Clips

[December 3, 2015 - Malloy: Connecticut Signs Onto Global Climate Pact, Hartford Courant](#)

Connecticut has become the eighth state to sign onto a global agreement pledging to limit greenhouse gas emissions.

Gov. Dannel P. Malloy said Thursday that the state will join the Under 2 MOU agreement, which seeks to limit the worldwide temperature increase to below 2 degrees Celsius. Signing the pact means Connecticut agrees to reduce its greenhouse gas emissions to 80 to 94 percent below 1990 levels by 2050.

Malloy said the state has a record of successfully reducing carbon emissions while growing its economy. Emissions were reduced to 10 percent below 1990 levels in 2012. During that same time period, the state's population grew 9 percent and the economy grew 41 percent, according to the governor's office.

"We are making strong progress on all fronts and our state has emerged as a national leader on climate action," he said in a statement.

The other states that have signed the agreement are New Hampshire, California, Minnesota, New York, Oregon, Vermont and Washington.

World leaders are meeting this week in Paris at the 2015 United Nations Climate Change Conference, known as COP 21.

[November 30, 2015 - Videos explore Yale research on climate change in Connecticut, the region, and the world, Yale News](#)

Dozens of Yale faculty, students, and other Yale community members will contribute to the negotiations, climate research, and informational sessions at the United Nations Climate Change Conference "COP21," that began Nov. 30 in Paris. The goal of the gathering is to create a legally binding international agreement to help limit global climate change.

In a series of videos YaleNews has recently explored Yale faculty research and local campus community actions to both examine and help limit the effects of climate change here in Connecticut and on the Yale campus. These stories range from the need to effectively communicate the dangers of major coastal storms, to sustainability efforts in Yale's campus operations, to how the subtle but steady changes in local average temperatures affect our Connecticut wildlife populations.

The videos in this series include:

Storm Warnings: Hurricane Perceptions of Connecticut Coast Residents

Last summer a team led by Yale School of Forestry & Environmental Studies researcher Jennifer Marlon found that most Connecticut coast residents underestimate the threat from large storms like hurricanes and Nor'easters. Communication is key here, she notes: 70% of coastal Connecticut residents said they were unsure or unaware whether they were even located in an evacuation zone.

Marlon says "One of the surprising things we found is that no one sees their job as communication. You have the weather forecasters who are giving us information about storms, when they are going to hit, wind speeds, and things like that, but there isn't really a group that's devoted to communicating before, during, and after a storm. Emergency responders for example are worried about moving trucks, and people, and dealing with logistics. They're not really focusing on communication, so this is a big need going forward."

Sustainability solutions at Yale: Global challenges, local action

Members of Yale's Sustainability strategic planning process are charged with designing and implementing the many ways in which Yale is both addressing sustainability and climate change as an institution, and integrating sustainability study and research into the academic mission of the university. "As you think about Yale and climate change there's at least two broad categories of responses. There's the question of what Yale's operations contribute to climate change, and how we address those, and then there's also the newer and more difficult part of how we collectively tap into Yale's academic mission of creating, preserving, and disseminating knowledge in ways that will help the world address climate change" says Brad Gentry, professor of management, and of forestry and environmental studies.

One new feature of Yale's sustainability planning is a more active partnership between what happens in classroom and research labs and Yale's business and infrastructure logistics that impact sustainability. Associate provost James Slattery says "We recognized a need to better link our operational sustainability initiatives to our research, teaching, and learning initiatives. And further we want to connect those initiative to both local and global climate issues."

Drowning marshes: Sea level rise and the fate of Connecticut's salt marshes

Salt marshes in Connecticut and all along the East Coast are increasingly endangered by the recent increase in the rate of sea level rise. The marshes are caught in a vise between the rising waters, and coastal development that limits the inland migration of marshes.

Shimon Anisfeld of Yale School of Forestry & Environmental Studies says "I think people on the Connecticut coast are not that aware that the landscape is changing, that the border between the ocean and the land is changing rapidly over time, and that it's going to continue to change. If we care about our marshes and want them to survive, their future lies in providing space for them to rise as the sea level rises."

Evolution and climate change: What wood frogs and alewives can tell us

Two of Yale's senior biologists, David Skelly and David Post, discuss their work in and around Linsley Pond in North Branford, Connecticut and how the rapid pace of climate change is driving evolutionary changes in the animal species they study.

"For some species we're going to see evolution in response to climate and temperature. Interestingly, the term 'climate adaptation' is used almost exclusively to think about how people will deal with climate change," says Skelly, professor of ecology and director of the Peabody Museum. "We have a good idea that at least some species will evolve, but we're not quite sure how that's going to shake out for them. Any sort of natural selection of this type is likely to erode variation. Variation is the way species cope with change, and by removing some of the species genetic variation that may make them vulnerable to other aspects of climate change - we just don't know."

Crucible of evolution: G. Evelyn Hutchinson and the invention of modern ecology

Yale University has a long history of researching the effects of climate change on both the local and global environments. In the 1930s Yale biology professor G. Evelyn Hutchinson began a series of research projects centered on North Branford's Linsley Pond, and this field research became the foundation for a landmark series of scientific papers that established ecology as an experimental, quantitative science. Hutchinson is now widely regarded as the "founding father" of modern ecology, and his work in the Connecticut landscape also provided much of the early the scientific basis for the environmental movement that began in the 1960s. Hutchinson was also one of the earliest scientists to warn about the dangers of global warming and excess man-made carbon dioxide, and testified before the U.S. Congress on these issues in the early 1960s.

"One of the things I love about the perspective Hutchinson could bring is that it's still valid today. That's the only way we're going to address the ecological and evolutionary effects of climate change is to look at the effects of climate on nutrient cycling, on community

organization, on evolution. Hutchinson's skill at bringing that together was really important," says Yale professor of ecology and evolutionary biology David Post.

[November 30, 2015 - US Park Service releases report on climate change response, CT Post](#)

ANCHORAGE, Alaska (AP) - As world leaders began talks in Paris on solutions to global warming, the National Park Service on Monday released a report detailing agency efforts to address threats to national parks from climate change.

The report lists 24 case studies in U.S. parks from Maine to American Samoa, including two in Alaska.

Interior Secretary Sally Jewell noted the report Monday in Paris, where she was scheduled to meet with delegates to the UNESCO World Heritage Committee and discuss protecting World Heritage sites.

"What's happening in our national parks is a small window into the impacts of climate change on natural and cultural resources around the world," Jewell said in a release.

In Alaska, the agency notes reduced sea ice blamed on rising ocean temperatures that affect the Bering Land Bridge National Preserve and Cape Krusenstern National Monument. Both are in northwest Alaska.

Reduced sea ice, according to the agency, delays the winter return of sea ice, leaving the coast vulnerable to storms and erosion. The agency is paying attention to lagoons, which provide habitat for important bird populations, and how they could be affected by rising sea levels and changing chemical characteristics of water.

The reduction in sea ice also has allowed for an increase in oil development and marine traffic, raising the potential for marine spills.

The National Park Service, according to the report, is responding with long-term monitoring of lagoons and the coast for a better understanding of vulnerability in the parks.

Cultural resources also are threatened at the preserve and the monument, which hold ancestral villages of the Inupiat people.

Average temperatures in the Alaska Arctic have risen at twice the rate of the rest of the world, according to the report, and precipitation patterns are changing. Permafrost, a layer of soil that stays frozen year-round, has preserved cultural resources but is melting and eroding.

The park service has responded by developing a model intended to predict locations and vulnerability of the archaeological sites.

[November 24, 2015 - The Sand Has Disappeared, Branford Eagle New Haven Independent](#)

Shoreline residents know the effects of rising seas and climate change-the sand is disappearing and storms are becoming fiercer.

"I see water at the sea walls where there used to be beach," said Branford Town Engineer Janice Plaziak, who is spearheading an effort to develop a Coastal Resilience Plan.

Branford is developing the resiliency plan to identify areas at risk for storm surge, erosion and flooding. The federally funded study will identify options and plans to help make the town more resilient to long-term coastal risks.

"We're looking for a lot of comments and input," Plaziak said as she spoke to the crowd of about 60 people who attended a recent workshop held at fire headquarters. Many people asked questions and several recalled their experiences during Tropical Storm Irene and Superstorm Sandy.

The map at top compares Branford's flooding during Superstorm Sandy to projected flooding in 2020 from a Category 2 Hurricane, and projected effects of daily high tides in 2080.

"There's no question the tide is higher," said James Goggin, a Linden Avenue resident who is a member of the Inlands Wetlands Commission.

Linden Avenue was hit hard during storm Irene when the only road leading to the well-populated peninsula was nearly wiped out by the storm surge. [Click here to read about the road collapse.](#)
[Short Beach Concerns](#)

"The sand has disappeared and it really didn't return after Sandy," said Short Beach resident Frazier Bronson. His home was hit hard by storm Irene, when surging water and winds destroyed the top half of his sea wall, the deck and much of the first floor of his home. [Click here to read about his comments during a Shoreline Preservation Task Force meeting in July 2012.](#)

Bronson said Wednesday that he and his wife evacuated before storms Irene and Sandy, and had difficulty returning because of flooding and downed trees and power lines.

Branford at the Crossroads

"Branford is at a crossroads," Murphy said during a PowerPoint presentation. He is compiling the resiliency plan along with Scott Choquette and Sarah Hamm, both of CFM Dewberry.

The planning team is looking at the vulnerability of Branford's buildings, utilities, roads, bridges, electric grids, and communications. Murphy said if vulnerabilities are decreased, then risks can be reduced.

"Resiliency is the ability to bounce back," Murphy said as he talked about the ability to prepare for storms and adapt to changing climate conditions. "The goal of resiliency is to reduce the recovery time," he said.

Murphy said more meetings will be scheduled before the plan is finalized. "We will leave the town with a menu of things that can be funded in the future," he said.

Jack Ahern, the former fire chief who is now the third selectman, asked what steps officials can take to seek funding.

Choquette said identifying and prioritizing projects is the first step, and the next step is identifying possible funding sources. Those issues will be discussed at future workshops.

A PowerPoint presentation of their initial findings will be available on the town's website.

A Good Start

"This is a really good start," one resident said. She asked that the next presentation be available on the town website before the meeting so residents can read it and come to the meeting prepared for discussion.

"It sounds like people are really interested in what the solution is, in addition to what the problem is," she said.

Plaziak said Wednesday's presentation dealt with the "science side" of identifying the vulnerable areas. She said the next session will deal with solving the problems and making the town more resilient. "The real interesting stuff is how we solve the problems," Plaziak said.

Another man asked what is being done to protect the town's electrical substations which are at sea level. "The town has very, very low tolerance for being without electricity," he said.

Plaziak said Eversource is looking at options to make the substations more secure, such as building seawalls.

Resident Jonathan Clark asked what resources are available to homeowners to shore up their homes.

Plaziak said she addresses homeowners' concerns in her position as floodplain manager. She said those duties have increased over the years. "I've been working with a lot of people," she said.

[November 19, 2015 - Connecticut. The Microgrid State. Energy Manager Today](#)

Hurricanes Sandy and Irene and a number of lower profile emergencies have had a great impact on Connecticut. Instead of just nervously watching The Weather Channel, the state is taking action.

The latest example of efforts to ensure that key functions kept operating in emergency - and to give a boost to the traditional grid in the process - came this week. The town of Woodbridge finalized a deal with The United Illuminating Company to create a microgrid that will provide 2.2 MW of power to the electrical grid and act as a backup for seven municipal buildings.

The microgrid, which will be operational next year, will be powered by a FuelCell Energy power plant and be headquartered at Amity Regional High School, one of the seven buildings. The others are the senior center - which will be the emergency center - the public works facility, the police station, the fire house, the library and the town hall.

The state of Connecticut has a number of microgrid projects under way. "Both hurricanes Sandy and Irene very clearly demonstrated the need for grid resiliency in the State of CT," wrote Kurt Goddard, FuelCell Energy's head of investor relations, in response to emailed questions from Energy Manager Today. "The CT Department of Energy and Environmental Protection has been supporting the adoption of microgrids in towns and cities throughout the State since these two back-to-back storms devastated the state."

Goddard pointed to structural changes that encourage the projects. "The State of Connecticut deregulated utilities so the utilities own transmission and distribution but not generation," he wrote. "The state wanted to expand adoption of renewable power generation, consistent with its RPS [Renewable Connections Program] goals, and passed legislation allowing the utilities to purchase/own a certain portion of renewable power generation. United Illuminating took advantage of this, purchasing a number of fuel cell power plants to support existing electrical sub stations, such as the New Haven and Bridgeport Seaside projects." Microgrids Come to Connecticut

A story at The Fairfield Daily Voice says that in 2012 Connecticut became the first state to institute a project. It has awarded \$23.1 million to date. Last month, the town of Fairfield introduced a microgrid which, like the project in Woodbridge, will both supplement the grid during normal times and provide emergency backup. It was funded by a \$1.2 million grant from the state Department of Energy and Environmental Protection (DEEP).

This area will stay hot for some time. Cogeneration & On-Site Power Production reported last month that Connecticut will begin accepting funding proposals for microgrid projects on December 10. This round - the third - eventually will grant \$30 million. Private and municipal entities can apply for the grants. The story says that \$20 million will be set aside for municipalities, which can be awarded as much as \$3 million each. An additional \$2 million can be awarded to "priority towns" that are eligible for Department of Agriculture funding, the story said.

The financing of microgrids will be a growing issue as the segment seeks traction. Microgrid Knowledge offers insight into the realities of financing such projects. These entities, the story says, represent a unique challenge to green banks, which so far have focused on solar energy. Microgrids, the story says, must be more customized more closely to the specific project than solar projects and tend to have different levels of credit worthiness based on the such issues as the nature of the buildings that will be served. The goal, according to an official of the Connecticut Green Bank cited in the story, is to move microgrid projects from grants to loans.

Goddard feels that microgrids are a useful tool in Connecticut and beyond. "Microgrid adoption is growing," he wrote. "Universities, hospitals and manufacturers are common applications as a continual supply of power is critical for operations/safety. Municipal applications are growing as consistently available power is expected by American voters. Politicians may not be re-elected if power goes out frequently and for long periods of time as a result of storms."

[November 18, 2015 - Are You A Hurricane Diehard?, Branford Eagle New Haven Independent](#)

Coastal Connecticut residents don't have realistic attitudes when it comes to potential hurricane risks, according to two recent studies by the Yale Project on Climate Change Communication.

"We're self-reliant and independent and we tend to underestimate the risk," said Dr. Jennifer Marlon, who co-authored the two studies.

Marlon said people's perceptions of hurricane risks affect their preparedness and their willingness to evacuate.

Marlon was a keynote speaker at a forum last week sponsored by the League of Women Voters of the East Shore; and Shoreline Village CT. The forum, which was held at Branford Fire Headquarters, dealt with the two studies-"Hurricane Perceptions of Coastal Connecticut Residents" and "Hurricane Attitudes of Coastal Connecticut Residents."

State Rep. James Albis (D-East Haven), who served as moderator, was in his first term when Tropical Storm Irene hit in 2011, severely impacting homes along Cosey Beach Road. "We lost about 40 homes in that storm," he said. Then Super Storm Sandy hit in 2012, causing damage along the shoreline. Albis, who is co-chair of the Legislature's Environment Committee; and chair of the state's Task Force on Shoreline Preservation, said officials have learned a lot from both storms.

"We have done a number of things at the state level but as Jennifer's research has shown, there's a lot more to do," Albis said.

Another keynote speaker was Kate Novick, managing partner of Gradient Planning LLC. "We don't live in our parents climate," Novick said as she discussed the effects of climate change. "We need to think differently about future storms."

Rounding out the panel were former Branford fire chief, Jack Ahern, who serves as the town's assistant emergency management director; and John Bowers, Madison's emergency manager director. About 20 residents from shoreline communities attended.

Ahern, who was recently elected to the town's Board of Selectmen, said he agreed with the results of the two research projects based on Branford's experiences during the past two storms.

"For as much as we prepare, you can never really prepare for everything that might happen," Ahern said, adding that communication is very critical, especially in the aftermath of storms.

NOTE-Branford is conducting a public information meeting and workshop tonight (Wednesday) at 7 p.m. at Fire Headquarters to present the vulnerability and risk assessment conducted as

the initial phase of the "Branford Coastal Resilience Plan." Residents and business owners may provide input to the risk assessment by sharing their stories about coastal erosion and flood risks.

Attitudes and Awareness

Marlon, a research scientist with the Yale Project on Climate Change Communication, said weather and storm forecasts are becoming more accurate but people's behaviors are not changing correspondingly.

Marlon said despite lessons learned in Tropical Storm Irene, only 22 percent of shoreline residents evacuated for Superstorm Sandy the following year.

The research projects focused on attitudes about hurricanes and the need to improve communications. About 1,000 shoreline residents responded to the 12-page surveys. The projects were funded by NOAA under the Coastal Storm Awareness Program and the National Sea Grant College Program.

Marlon said attitudes about a possible Category 2 hurricane had a wide range of responses-34 percent said it would be safer to stay than evacuate; 31 percent said it would be safer to evacuate; and about 35 percent said it was a 50/50 chance which would be safer. "We're talking about a storm more severe than Sandy," Marlon said.

She said 70 percent of the survey respondents didn't know if they were in an evacuation zone, and 74 percent said they had never seen a local evacuation map. Marlon said the majority of people think wind damage is the greatest problem during a hurricane, but that storm surges cause the most fatalities during a coastal storm.

The report identified five groups of people based on their attitudes about hurricanes and their willingness to evacuate.

1. First Out - 21 percent worried about severe storms and said they would evacuate.
2. Constrained - 14 percent were aware of the risks but faced problems with evacuating because of poor health or other issues such as pets.
3. Optimists - 16 percent doubted a hurricane would occur but were willing to evacuate if necessary.
4. Reluctant - 27 percent were reluctant to evacuate but would if ordered to.
5. Diehards - 22 percent were confident they could ride out storm at home.

"Different groups have different information needs," Marlon said, adding that information must be tailored to reach everyone. "We have to help people imagine what might happen," she said.

Pulling Off the Blindfolds

Novick, the other keynote speaker, said climate change is affecting homes and communities. "We're in new territory," she said. "We have to pull the blindfolds off and look at the reality."

She said it's not just the initial impact of the disaster; it's the aftermath when people struggle to recover.

"With each new hurricane, we are responsible to learn from it and prepare for the next one," said Novick, an engineer with 20 years consulting experience.

She said people must work together to prepare for storms and to recover from them. "Be creative and resourceful. Ask for help ahead of time," Novick said. "Get to know your neighbors."

Local Response Teams

Ahern, who was fire chief during storms Irene and Sandy, said that storms that don't materialize

are also worrisome. "What we worry about is the storm that doesn't come, because people get complacent," he said.

Ahern said one major lesson learned from the storms was the disastrous effect on communications. He said the town's reverse 911 system was excellent for letting people know what was happening, but that many homes didn't have phone service. The extensive power outages knocked out service for people with Comcast phones, and for people who relied on portable phones instead of landline phones. He said some people did not register their cell phones for the town's reverse 911 service, and that some cell towers did not have enough back-up generators.

Branford uses the Everbridge system for reverse 911 calls, which is part of the state-wide notification system that residents should sign up for.

Ahern said people were not prepared for the long periods of power loss that occurred after the storms. "People think power is like Amazon—you just call and it comes overnight—it takes a long time to get the grid back."

After lessons learned from Irene's power outages, Ahern said the town and the power company worked together to prioritize the vulnerable areas of town. He said during Irene, the town used 53 ambulances to evacuate the Hospice because the facility was without power.

Ahern said municipal planning for disasters is a multi-faceted task. "There's a lot that goes on behind the scenes," he said, in reference to plans made by the fire and police departments. For instance, he said firetrucks and ambulances have to be pre-positioned in flood-prone areas before the storms hit. "Once the flood comes, nobody's getting in and nobody's getting out."

Bowers, the emergency management director in Madison, also agreed with the research results. "Our experience models what you found with your studies," Bowers said to Marlon. "We didn't have a lot of people evacuate."

He said many Madison residents have already elevated their homes. "They spent a fortune lifting their houses up and they're not going to leave," he said.

Bowers said the low-lying homes are the most vulnerable. "They're taking their lives in their hands if they're staying there," he said.

Bowers said one lesson learned from Tropical Storm Irene was that gas stations need generators to stay open when the power goes out. He said the newly built rest stops along I-95 now have generators from their gas pumps. "That was a big improvement," he said.

National News Clips

[December 4, 2015 - Small Countries Fight For Their Lives In Paris. But Have Little Control. Climate Progress](#)

In this Saturday, May 30, 2015, photo, children play on the beach in the town of Takara, on Efate Island, Vanuatu. The town was damaged in March during Cyclone Pam. Many people in the town are considering rebuilding their community on higher ground to escape what they believe are the ongoing effects of climate change.

Rising seas, melting icecaps, bigger storms. Scientists and world leaders know we need to stop global warming before it hits 2°C, which is why so many are gathered now in Paris for the United Nations climate talks.

In the lead-up to the negotiations, nearly every country in the world submitted an Independent Nationally Determined Contribution (INDC), an outline of what it would do to combat climate change. But even while many leaders seem to think they are navigating a historic, ambitious

course, under these current commitments alone, we are actually sailing not towards a 2°C cut-off, but rather towards a rise of 3.5°C.

Large, wealthy countries might think they can prepare and protect themselves, but other countries won't get that chance.

Small countries - island nations like Vanuatu and Seychelles, mountain countries like Nepal, coastal nations like Nicaragua and Panama - are among the most vulnerable to the ravages of climate change, as coasts and snowpacks disappear. These countries also have the least control over the world's course, in two ways. First, they have little political influence. But they also have little physical influence over our environment. Emissions are so imbalanced that it is impossible for most small countries to make meaningful carbon reductions.

Nicaragua, for instance, could cut its carbon footprint in half and still only reduce the world's emissions by less than two hundredths of a percent. The top 20 carbon emitters - led by China, the United States, the European Union, and India - account for 80 percent of the world's greenhouse gases. If those countries don't take climate change seriously, there is little small countries can do about it. And many of these countries don't see the Paris negotiations as a serious approach.

Take Nicaragua, for instance. Nicaragua, which has both Atlantic and Pacific coastline and experienced crippling drought last year, has refused to submit an INDC to the United Nations climate conference.

"We're not going to submit because voluntary responsibility is a path to failure," Paul Oquist, Nicaragua's lead envoy in Paris, told Climate Home. He said that the smallest 100 contributors have historically added just 3 percent of the greenhouse gases that are driving climate change.

"There's no willingness to make any sacrifices on policy sphere and that's why we have this very poor level of ambition," Oquist said of the current commitments. In other words, as long as the larger structural dependence on fossil fuels continues, it will be hard for the global community to make radical improvements in our climate prognosis.

But not all small countries have the same fatalistic view of the Paris negotiations. Some have banded together to put pressure on the international community.

Instead of concentrating on what will make Paris fail, we should concentrate on what will make Paris succeed

The Small Island Developing States, a group of more than 50 island nations, have been outspoken on climate change. Ronald Jumeau, the Roving Ambassador for Climate Change and Small Island Developing State Issues for the Republic of Seychelles, testified at a climate change hearing called by House Democrats in November, arguing that action on climate change is critical. He disagreed, though, that there was nothing his group could do in Paris. Continued...

[December 2, 2015 - Rising seas are claiming a vulnerable nation. The New York Times](#)

EBEYE, Marshall Islands - Linber Anej waded out in low tide to haul concrete chunks and metal scraps to shore and rebuild the makeshift sea wall in front of his home. The temporary barrier is no match for the rising seas that regularly flood the shacks and muddy streets with saltwater and raw sewage, but every day except Sunday, Mr. Anej joins a group of men and boys to haul the flotsam back into place.

"It's insane, I know," said Mr. Anej, 30, who lives with his family of 13, including his parents, siblings and children, in a four-room house. "But it's the only option we've got."

Standing near his house at the edge of a densely packed slum of tin shacks, he said, "I feel like

we're living underwater."

Worlds away, in plush hotel conference rooms in Paris, London, New York and Washington, Tony A. deBrum, the foreign minister of the Marshall Islands, tells the stories of men like Mr. Anej to convey to more powerful policy makers the peril facing his island nation in the Pacific as sea levels rise - and to shape the legal and financial terms of a major United Nations climate change accord now being negotiated in Paris.

Mr. deBrum's focus is squarely on the West's wallets - recouping "loss and damage," in negotiators' parlance, for the destruction wrought by the rich nations' industrial might on the global environment. Many other low-lying nations are just as threatened by rising seas. In Bangladesh, some 17 percent of the land could be inundated by 2050, displacing about 18 million people. But the Marshall Islands holds an important card: Under a 1986 compact, the roughly 70,000 residents of the Marshalls, because of their long military ties to Washington, are free to emigrate to the United States, a pass that will become more enticing as the water rises on the islands' shores.

The debate over loss and damage has been intense because the final language of the Paris accord could require developed countries, first and foremost the United States, to give billions of dollars to vulnerable countries like the Marshall Islands. Senior Republicans in Congress are already preparing for a fight, they say on behalf of the American taxpayer.

"Our constituents are worried that the pledges you are committing the United States to will strengthen foreign economies at the expense of American workers," 37 Republican senators wrote last month. "They are also skeptical about sending billions of their hard-earned dollars to government officials from developing nations."
Continued...

[December 1, 2015 - These Countries Have The Most To Lose If Paris Climate Talks Fail, HuffPost Green](#)

Climate change may be the one thing that threatens everyone on Earth. But the peril is much more dire for people in some countries if negotiators fail to reach a climate deal in Paris in the coming weeks.

The Notre Dame Global Adaptation Index and climate risk consulting group Verisk Maplecroft both release annual rankings of nations most vulnerable to climate change based on geographical conditions and preparedness. Below are some of the countries most threatened by a warming planet.

Bangladesh

Climate change will inundate Bangladesh -- one of the world's most densely populated countries with some of the least arable land per capita -- with "extreme river floods, more intense tropical cyclones, rising sea levels and very high temperatures," a 2013 World Bank Report warned. Floods, tropical cyclones, storm surges and droughts are already becoming more frequent in coastal areas and in arid and semi-arid regions, the European Union's Global Climate Change Alliance reports.

"For my country, Bangladesh, the goal of combatting climate change and its impacts is crucial, as we are on the frontline of this global threat," Bangladeshi Prime Minister Sheikh Hasina wrote on The Huffington Post in September, noting that the nation has experienced 50 percent more rainfall than average this year, causing serious damage to crops. "The pledges on reducing emissions submitted for the Paris climate meeting must be measurable and verifiable."

Chad

Verisk Maplecroft's Climate Change Vulnerability Index and the Notre Dame Global Adaptation Index rank Chad as the No. 1 and No. 2 most climate change-threatened nation, respectively. As one of the poorest countries in Africa, Chad is not well-equipped to handle catastrophic climate disasters. Extreme weather events in the country may take the form of increasingly

severe droughts or devastating floods, the Global Climate Change Alliance reports, and will take a huge toll on Chad's agriculture, livestock breeding, fisheries, health and housing.

The most striking symbol of climate change in the region is Lake Chad, which has shrunk to nearly one-twentieth of its original size since 1963, according to the U.N.

"In all, the experience of countries sharing the Lake Chad further illustrates the mutual challenge we face today and which must be collectively addressed without further delay," Nigerian President Muhammadu Buhari said Monday in Paris.

Pacific island nations

Low-lying Pacific island nations face the daunting possibility of being completely underwater if climate change isn't addressed in time.

Kiribati President Anote Tong, whose 33-island nation of 105,000 people has an average elevation of less than 6.5 feet above sea level, said at the Paris summit Monday that Fiji has already offered to shelter its residents in the event that the islands become uninhabitable, Slate reported.

But Fiji is already faces its own climate disaster. At a gathering of Pacific island nations last month, The Guardian reported, Fiji foreign minister Ratu Inoke Kubuabola said the country was seeing a re-emergence of climate-influenced diseases, including typhoid, dengue fever, leptospirosis, and diarrheal illnesses.

Niger

Niger is considered one of the most climate-affected countries because of its high-stakes agriculture sector, which engages more than 80 percent of the population, according to the U.S. Geological Survey.

"Niger is indeed one of the world's most vulnerable countries because of its exposure to climate risks and its landlocked position," World Bank economist El Hadj Adama Touré explained in 2013. "Compounding this situation are the risks it faces from both internal and regional political extremism. One way or the other, all these factors affect the performance of the agricultural sector and therefore food and nutritional security."

Resources are stretched in Niger, which has the world's highest birth rate at 7.6 births per woman, and is predicted to double its population by 2031.

Haiti

Haiti is a "striking example of how this combination of physical exposure and socioeconomic conditions could lead to extreme climate change vulnerability," Columbia University's Earth Institute explained.

Haiti's climate vulnerability is amplified by over-exploitation of its forest, soil and water resources -- all of which will be further strained by a changing climate, the Global Climate Change Alliance noted.

Haiti lies in a hurricane corridor and is predicted to face more frequent and more severe hurricanes as climate change intensifies, according to Columbia.

Democratic Republic of Congo

Climate change is likely to strike agriculture hard and increase the spread of disease in the Democratic Republic of Congo.

In a country where nearly 90 percent of the people rely on agriculture for their livelihood, climate change will likely wreak havoc on crops with more intense rainfall and floods, landslides and soil erosion in the central Congo basin, according to a BBC report. The country can expect the opposite in the south, where the Katanga region will likely see its rainy season shorten by at least two months by 2020.

Malaria and cardiovascular and water-borne diseases also may increase as a result of the

warming climate.

Afghanistan

The U.N. identified Afghanistan as one of the countries most at risk of climate change and implemented a \$6 million climate change initiative in the mountainous, landlocked, dry country in 2012.

Climate change increases Afghanistan's likelihood of drought, floods and desertification. The warming climate will likely disrupt agricultural and security developments after three decades of war, warns the Global Climate Change Alliance.

Central African Republic

The Central African Republic, one of the world's poorest nations, is experiencing intense civil unrest following the ousting of its leader that will only get worse with climate change.

"By building adaptive capacity, you're really taking care of some of the development issues, and by bringing people together in a genuinely participatory process, you can really contribute to reducing the conflict and tension within the country," Denis Sonwa, a scientist and agro-ecologist at Center for International Forestry Research, said.

Agriculture in the country is "still artisanal" without irrigation systems, Sonwa explained, which keeps it dependent on the rainy season.

Meanwhile, recurring floods in Central African Republic capital Bangui cause on average \$7 million in damages and losses a year, The Guardian noted.

Guinea-Bissau

Climate change will have severe consequences in Guinea-Bissau, which is largely made up of low, coastal areas and faces intense solar radiation, a government report warned.

The nation's reliance on rain for its irrigation-free agriculture system is already becoming a problem.

"Rainfall is becoming increasingly irregular in space and time, a phenomenon accompanied by increase in temperature, thus causing low-yield agriculture, soil degradation by intensification of the phenomenon of evapo-transpiration," the report noted.

[November 23, 2015 - Watch How Rising Sea Levels Could Swallow Coastal Cities.](#) **[HuffPost Green](#)**

Scientists have given the world fair warning: Climate change could – and likely will – result in a catastrophic rise in global sea levels.

As you'll see in the video below, that could affect more than 100 million people in the U.S.

For some coastal cities in the U.S. – notably New Orleans, Miami and Boston – it may be too late to reverse the damage that's already been done. Others could still be saved if we take swift action to reduce carbon emissions.

Ben Strauss, vice president for sea level and climate impacts at Climate Central, told Agence France-Presse last month that if we don't cut back on burning fossil fuels between now and 2100, the planet will likely face sea level rise between 14 and 32 feet. The only uncertainty is how quickly that would happen.

"Some of this could happen as early as next century," Strauss told Agence France-Presse. "But it might also take many centuries."

[November 23, 2015 - 5 Of The Deadliest Weather Disasters Of 2015, HuffPost Green](#)

A new disaster report from the United Nations found that weather-related disasters over the past 10 years have occurred almost daily – nearly twice as often as they did two decades ago.

The report released Monday, titled "The Human Cost of Weather Related Disasters," concluded that over the past two decades, 90 percent of disasters were tied to "floods, storms, heat waves and other weather-related events." The remaining 10 percent were "geophysical" disasters, including earthquakes and volcanoes.

While the study authors say the "jury's out" on whether the rise in weather events is connected to climate change, many climatologists agree that a warming atmosphere exacerbates the severity of some weather disasters.

Below are some 2015's deadliest weather disasters:

Heat wave in India

A heat wave in India in May killed about 2,500 people, UN data shows, largely in the southern states of Telangana and Andhra Pradesh. With temperatures hovering around 120 degrees Fahrenheit for days, it's been declared the fifth-deadliest heat wave on record.

Many of the victims who died from dehydration and heat stroke were poor farmers and construction workers who couldn't afford to stop working outdoors despite the dangers, as well as elderly people living in poverty.

The brutalizing heat melted asphalt in New Delhi, photos showed, turning road markings into a swirling mess.

Heat wave in Pakistan

A heat wave in Pakistan, just weeks after the deadly one in neighboring India, killed 1,229 people in June, mainly in the southern port city of Karachi, UN data shows. Some estimates on the death toll from Pakistan were slightly higher.

The heat wave, The Associated Press noted, struck during Ramadan, during which the city's Muslim majority observes dawn-to-dusk fasting.

Floods and landslides exacerbated by Cyclone Komen

Heavy monsoon rains made worse by Tropical Cyclone Komen in August killed at least 493 people and displaced millions in six Asian countries, The Weather Channel reported. The devastating weather event brought more than three feet of rain to parts of Bangladesh and Myanmar, and triggered deadly flooding in Pakistan, India, Nepal and Vietnam over two weeks.

The flooding was so bad in India, it derailed two trains carrying up to 1,600 passengers and killed dozens, CNN reported.

Flooding in Malawi

Flooding in Malawi in January claimed 276 lives, UN data shows, and forced President Peter Mutharika to declare half of the densely populated country a disaster zone.

Nearly a quarter-million people in Malawi were affected, including 230,000 injured, according to data collected by The Guardian. The floods ravaged about 158,000 acres of land and were estimated to have cost the nation about \$51 million in damage.

Flooding in Chile

Highly unusual floods in Chile's Atacama desert in March left 178 dead, UN reports show. The Weather Channel described it as "over 14 years' worth of rain in 24 hours" and said the flooding was the most extraordinary weather event so far in 2015.

Chile President Michelle Bachelet said the damage would total at least \$1.5 billion in the region, which is typically one of the driest places in the world.

Announcements

[December 11 & 15, 2015 - Exploring Climate Solutions Webinar Series. Governor's Council on Climate Change. Upcoming webinars on December 11 & 15. Register here.](#)

The series explores innovative and successful climate change solutions across Connecticut and the nation. The webinars provide first-hand accounts of high-profile municipal climate programs, climate initiatives in the corporate world, new greenhouse gas reporting frameworks, statewide sustainability programs, low-carbon fuel initiatives, and other programs and projects that help reduce greenhouse gas emissions and/or improve climate resilience.

The webinars are free and open to the public. Registration required. Attend scheduled webinars from any computer connected to the web. During the webinars, attendees may submit questions for the presenters to answer.

Connecticut's Clean Energy Future: Climate Goals and Employment Benefits
Dec. 11, Noon to 1:00

On November 16, the Labor Network for Sustainability is to release a report entitled "Connecticut's Clean Energy Future: Climate Goals and Employment Benefits." Building on a national report released last month, the Connecticut study found that reaching the state's formal goal of reducing GHG emissions 80 percent below 2001 levels by 2050 will result in a net increase in jobs and strengthen the economy as a whole. In this webinar, Dr. Frank Ackerman, the Massachusetts economist who led the research team, will review the findings of the Connecticut study. The study was conducted through a partnership between Labor Network for Sustainability, the CT Roundtable on Climate and Jobs, and Synapse Energy Economics.

Workplace Charging Challenge
Dec. 15, Noon to 1:00

The EV Everywhere Workplace Charging Challenge is from the U.S. Department of Energy, it aims to achieve a tenfold increase in the number of U.S. employers offering workplace charging for plug-in electric vehicles (PEV) by 2018. Many PEV drivers do their charging primarily at home, but access to charging at the workplace can help to double their vehicles' all-electric commuting range, increasing the affordability and convenience of driving an electric vehicle. The Challenge is open to U.S. employers of all sizes whose charging stations are, or will be, primarily for employee use. The Challenge offers benefits to employers who are considering installing charging stations as well as to employers who have already launched a charging program. This webinar will provide an overview of the Challenge and the benefits of workplace charging.

[January 15, 2015 - Next review date for CIRCA Matching Funds Program. Up to \\$100,000 available. For more information go to <http://circa.uconn.edu/funds.htm>](http://circa.uconn.edu/funds.htm)

The CIRCA Executive Steering Committee is excited to announce its fourth round of funding under the Matching Funds Program - up to \$100,000 is available. CIRCA will consider requests from Connecticut municipalities, institutions, universities, foundations, and other non-governmental organizations for matching funds for projects that address the mission of the Institute. To be funded, a successful Matching Funds request must have a commitment of primary funding within 6 months of the CIRCA award announcement, or have received a waiver from the CIRCA Executive Steering Committee. CIRCA Matching Funds will provide up to 25% of the primary funder's contribution other than municipal or State of Connecticut funds to enhance the likely success of project proposals that advance CIRCA research and implementation priorities. In evaluating proposals preference will be given to those that leverage independent funding awarded through a competitive process.

[February 3, 2015 - Applications due for NFWF Five Star/Urban Waters Restoration Program](#)

2016 NFWF Five Star/Urban Waters Restoration Program Invites Applications
Deadline: February 3, 2016

The National Fish and Wildlife Foundation is inviting applications for the Five Star/Urban Waters Restoration [Program](#), a public-private partnership designed to develop community capacity to sustain local natural resources for future generations by providing modest financial assistance for wetland, forest, riparian and coastal habitat restoration, stormwater management, outreach, and stewardship projects, with a particular focus on water quality, watersheds, and the habitats they support.

Each funder in this Request for Proposals has different priorities and requirements. NFWF will match every grant with all funding sources applicable to that project's activities, location, and project type. All projects must contain the elements of on-the-ground restoration; community partnerships; environmental outreach, education, and training; measureable results; and sustainability.

1) EPA Five Star Restoration Training Program: Approximately \$180,000 is available nationwide from EPA to fund projects meeting the Five Star program elements. These funds are available nationwide, in any size community.

2) Southern Company Five Star Restoration Program: Approximately \$300,000 is available from Southern Company and its operating companies (Alabama Power, Georgia Power, Gulf Power, and Mississippi Power) in support of on-the-ground wetland, riparian, in-stream, or coastal habitat conservation and restoration projects in Southern Company's service area.

3) EPA and USFS Urban Forestry and Waters Program: Approximately \$475,000 is available for projects designed to improve urban water quality, increase public access, and restore riparian habitat and urban forests in developed watersheds in the United States. Special consideration will be made for projects that directly advance priorities of Urban Waters Federal Partnership Designated Locations and/or that are in designated source-water protection areas.

4) Fish and Wildlife Service Urban Programs: Approximately \$360,000 is available from the U.S. Fish and Wildlife Service for projects that engage urban neighbors and foster a sense of stewardship in Fish and Wildlife Service lands or offices. Urban Wildlife Refuge Partnership proposals should address easily-accessible lands that the service does not own and involve residents in place-based outdoor experiences that foster connections with fish, wildlife, and their habitats. Urban Bird Treaty projects should have an emphasis on enhancing urban habitats for birds, engaging citizens in bird conservation, and connecting diverse and youth audiences to birds and bird conservation.

5) Bank of America: Approximately \$195,000 is available from Bank of America to support community-based restoration and stewardship projects in Washington, D.C.; Boston; San Francisco; Philadelphia, and Seattle.. Proposals must include a volunteer event for up to a hundred local Bank of America employees.

6) Alcoa Foundation: Approximately \$30,000 is available from the Alcoa Foundation for community-based restoration and stewardship projects in Cleveland, Canton, and Barberton, Ohio; and in Farmington Hills, Missouri.

7) Additional Private Corporate Funding: Approximately \$487,000 is available from a private corporate funder in support of urban conservation and restoration projects in Boston; Los Angeles; San Francisco/Oakland; Memphis, Seattle; Dallas/Ft. Worth; Washington, D.C.; northern New Jersey; New York City; Indianapolis; Pittsburgh; Miami; Colorado Springs; Philadelphia; Phoenix; Cleveland; Atlanta; Portland, Oregon; Harrison, Arkansas; Lakeland, Florida; and Akron/Uniontown, Ohio. Projects must include a volunteer event for up to a hundred local employees.

8) Additional Private Foundation Support: Approximately \$425,000 in funding is anticipated from private foundations for community-based habitat restoration and stewardship projects in urban and rural communities in Alaska, Idaho, Washington, Montana, North Dakota, Wisconsin, and Minnesota. Applicants should specify how their project supports sustained protection of non-game animal species and habitat and relates to underserved human communities.

Grant amounts will range from \$20,000 to \$50,000. A minimum one-to-one match of cash and/or in-kind/contributed goods and services to the amount requested is required.

Applicants must fully address the project elements of each applicable funder and complete their projects within one to two years of award. For USFS urban waters funding, preference will be given to projects that take place on, or directly benefit, public lands.

See the NFWF website for complete program guidelines, webinar recordings, an FAQ, and application instructions.

[Link to Complete RFP](#)



The *Resilience Roundup* highlights CIRCA's presence in the news, provides links to recent local/state/national news articles related to resilience and adaptation, and announces upcoming events and seminars.

The Connecticut Institute for Resilience and Climate Adaptation's (CIRCA) mission is to increase the resilience and sustainability of vulnerable communities along Connecticut's coast and inland waterways to the growing impacts of climate change and extreme weather on the natural, built, and human environment. The institute is located at the University of Connecticut's Avery Point campus and includes faculty from across the university. CIRCA is a partnership between UConn and the Connecticut Department of Energy and Environmental Protection (CT DEEP).

circa.uconn.edu

Follow us on 

CIRCA, UConn Avery Point Campus, 1080 Shennecossett Road, Groton, CT 06340

[SafeUnsubscribe™ {recipient's email}](#)

[Forward this email](#) | [Update Profile](#) | [About our service provider](#)

Sent by circa@uconn.edu in collaboration with

Constant Contact 

Try it free today