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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

January 28, 2016

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

CIRCA in the News

- **January 22, 2016** - Governor Malloy, Congressional Delegation Announce \$54 Million Federal Grant for Storm Resiliency in Connecticut, Office of the Governor Press Release
- **January 21, 2016** - Connecticut getting \$54 million in 'disaster resilience' money, CT Mirror
- **January 17, 2016** - Connecticut Sea Grant awards funds for six research projects, The Day
- **January 15, 2016** - Commissioner Klein Announces Federal Funding to Assist Disaster Recovery Efforts for Connecticut Residents, Department of Housing Press Release

Local and State News Clips

- **January 22, 2016** - Connecticut Shoreline Getting More Resilient Thanks to Federal Grant, WNPR
- **January 22, 2016** - Making the shoreline more flood-proof, WTNH News 8
- **January 7, 2016** - Westport receives \$650,000 flood grant, CTpost
- **January 4, 2016** - Massive rail plan leaves Connecticut hopeful but mystified, The CT Mirror

National News Clips

- **January 25, 2016** - Ocean Warming is Making Floods Worse, Study Finds, Climate Central
- **January 25, 2016** - Is Climate Change Supercharging Storms Like Jonas And Sandy More Than We Thought, Climate Progress
- **January 24, 2016** - Southern Jersey Shore Hit With Severe Flooding by Snowstorm's High Tides, New York Times
- **January 21, 2016** - HUD Awards \$1 Billion Through National Disaster Resilience Competition, HUD Press Release
- **January 21, 2016** - Hampton Roads to get more than \$120M to combat future flooding, The Virginian-Pilot
- **January 21, 2016** - 2015 was warmest year since records began in 1880, USA Today
- **January 20, 2016** - Atlantic, Caribbean storms more destructive as temperatures rise:

study, Reuters

- **January 19, 2016** - *Congress Actually Dealt with Climate Change in the 2016 Budget Bill. Really.*, InsideClimate News
- **January 18, 2016** - *New York City to get \$176 Million From U.S. for Storm Protections*, New York Times

Announcements

- **CIRCA awards more than \$100,000 to support resiliency projects** in Milford, New Haven, Northwest Hills COG, Waterford, and WestCOG through the Municipal Resilience Grant Program.
- **CIRCA Matching Funds Program supports two research projects** funded through the Connecticut Sea Grant focused on coastal adaptation.
- **March 15, 2016** - Next review date for CIRCA Matching Funds Program. Up to \$100,000 available. For more information go to <http://circa.uconn.edu/funds.htm>
- **April 15, 2016** - CIRCA Municipal Resilience Grant Program Round 2: Applications due April 15, 2016. Up to \$100,000 available. <http://circa.uconn.edu/funds-muni.htm>
- **February 3, 2016** - Applications due for NFWF Five Star/Urban Waters Restoration Program
- **February 4, 2016** - Office of Policy and Management Applications for Responsible Growth and Transit-Oriented Development Grants Due Feb. 4, at 4pm. Community resiliency is an eligible project.

CIRCA in the News

[January 22, 2016 - Governor Malloy, Congressional Delegation Announce \\$54 Million Federal Grant for Storm Resiliency in Connecticut, Office of the Governor Press Release](#)

HUD Grant Will Improve Shoreline Infrastructure in New Haven and Bridgeport

(HARTFORD, CT) - Governor Dannel P. Malloy today joined Connecticut Department of Housing (DOH) Commissioner Evonne M. Klein and members of the state's congressional delegation to announce that the U.S. Department of Housing and Urban Development (HUD) has approved a \$54 million grant the state applied for that will be used to improve shoreline infrastructure and increase resiliency to combat future weather events.

"Over the last few years in Connecticut, we have transformed the way we respond to emergencies, and we are now more prepared to respond to an extreme weather event than ever before. We are no doubt continuing to be proactive in modernizing our infrastructure so that our state - and especially our shoreline - is even more protected for the next severe weather event," Governor Malloy said. "Global warming is real - the science is real. And the more we all acknowledge that reality, the more prepared we can be for extreme weather. I want to thank the Obama Administration, particularly Secretary Julián Castro and his team at HUD, the state Department of Housing, and our Congressional delegation for our united efforts to see that we can help communities better prepare for future storms."

Connecticut was one of a few states that received grants from the National Disaster Resiliency Competition (NDRC), which was a competitive funding round offered by HUD to ensure states are prepared for future weather events. The grant will be administered by DOH, who has been the primary state agency charged with administering the Community Development Block Grant - Disaster Recovery (CDBG-DR) program following the devastation of Superstorm Sandy.

"Under Governor Malloy's leadership we have made a swift and smart recovery from Super Storm Sandy," Commissioner Klein said. "This funding will build on that success, ensuring that Connecticut is better prepared for future storms. Making our state more resilient will safeguard

residents and protect our shoreline from future storm damage."

"Bridgeport's South End has sustained repeated, severe flooding, damaging property, endangering lives and causing extended power outages - an experience shared by Connecticut's coastal communities all along the Long Island Sound," Senator Richard Blumenthal said. "This substantial, competitive federal award will do more than just repair past damage - it will help ensure the South End will thrive for decades to come while also funding comprehensive planning efforts to proactively protect and preserve all of our coastal communities."

"Today is a transformational day for our coastline communities," Senator Chris Murphy said. "Just days after HUD Secretary Julián Castro visited Connecticut, I'm pleased to announce that we have secured \$54 million to rebuild more resilient communities along the Long Island Sound. I first invited Secretary Castro to visit the state during an Appropriations Committee hearing last year, when I personally pressed him for additional Sandy relief funds. Hurricane Sandy ravaged our coast and flooded our homes, and with the risks of climate change only getting worse, we can no longer rely on band aid fixes. We need forward-looking improvements and bold investments. Today's federal grant, which was made possible by the hard work and close collaboration of local, state, and federal leaders, gets us closer to that goal."

"Through this grant, we will address vulnerabilities to our infrastructure that can make such a difference in instances of extreme weather, which is becoming all too common due to climate change," Congresswoman Rosa DeLauro said. "Events like Hurricane Sandy threaten the safety, health, and economy of our people and our state. I am pleased that we have been awarded this grant, so that we can reduce these risks, and factor the social and economic needs of local communities into our disaster planning moving forward."

"As we prepare today for another major storm to descend on the Eastern Seaboard, we remember the long-term damage that Sandy caused to our communities," Congressman Jim Himes said. "Today's \$54 million grant will help Bridgeport, Fairfield County, and other communities prepare for future disasters, which will save money and lives down the road. The federal government has been a strong partner in helping us rebuild from the devastation of previous storms, and today we are continuing and expanding the efforts to make our communities more resilient and less vulnerable to the next disaster. Climate change is causing these extreme weather events to be more common, so there's not a moment to waste in our preparations."

"Though it has been over three years since Super Storm Sandy devastated the region, Connecticut still faces considerable recovery efforts," Congressman John Larson said. "I commend Governor Malloy and HUD for their continued commitment to ensuring Connecticut emerges stronger and more resilient than ever. I am proud to support our neighbors in Bridgeport and across the coastline in their efforts to guard against future flooding and storm damage."

"This grant announcement is great news for Connecticut and will go a long way to helping us prepare for future natural disasters," Congressman Joe Courtney said. "With our state being located on the edge of the eastern seaboard with over 300 miles of coastline, we are particularly vulnerable to a range of extreme weather events such as hurricanes, coastal flooding, and sea level rise. I'm very glad that HUD was able to recognize the risks faced by our state and has committed to helping us prepare for the worst, even as we hope for the best."

"Make no mistake, the National Disaster Resilience Competition was hard fought, and I am thrilled that the Department of Housing and Urban Develop is awarding \$54 million for Connecticut to improve our infrastructure," Congresswoman Elizabeth Esty said. "Having survived Super Storm Sandy and other recent disasters, Connecticut understands resiliency. This federal funding will improve our ability to withstand the increasing challenges of climate change and recover quickly from natural disasters."

The State of Connecticut is focused on reconnecting and protecting economically-isolated coastal neighborhoods through investments in green streets that will protect against flooding as well as strengthen existing ties to transportation nodes. This HUD funding will support a pilot project in Bridgeport that is part of the state's broader Connecticut Connections Coastal

Resilience Plan. Funds will establish the South End Resilience Network, reconnecting the South End community with the downtown via a raised greenway that, combined with a stormwater treatment park, will also provide protection from coastal flooding. In addition, the funding will support the state's efforts to bring these same approaches to other at-risk communities along the I-95 corridor by contributing to planning efforts, including economic and climate modeling.

Funding for the following projects has been approved under the federal grant:

Bridgeport - South End East Resilience Network - \$34,368,759: Elevation of University Avenue and construction of a greenway earthen berm to create a new baseline for the establishment of an urban coastal community that will be protected against future storms and sea level rise, removing the risk to reinvestment and inviting new development to strengthen this extension of downtown Bridgeport.

Bridgeport - Community Design Center - \$1,000,000: Construction and rehabilitation of an anchor community center in the South End to serve as a design center and central location for future recovery efforts.

Bridgeport - South End District Energy Infrastructure Study - \$350,000: Analysis of opportunities to utilize micro-grids, cogeneration systems, and alternative energy sources to limit disruptions in energy supply due to emergencies.

New Haven/Fairfield County - Floodplain Design Guidelines - \$330,000: Development of new guidelines to incorporate cutting edge flood mitigation technologies

New Haven/Fairfield County - Connecticut Connections Coastal Resilience Plan - \$18,228,600: Extend this existing planning effort to more communities in New Haven and Fairfield Counties with the goal of providing accessible downscaled inland and coastal flooding information at the watershed scale for inland and coastal municipalities.

[January 21, 2016 - Connecticut getting \\$54 million in "disaster resilience" money. CT Mirror](#)

Bridgeport and the new administration of Mayor Joe Ganim appear to be the biggest beneficiaries of \$54.2 million in federal funds awarded Thursday to Connecticut to help Fairfield and New Haven counties better prepare for coastal flooding and climate change.

Ganim, who was at the White House in connection with a meeting of the U.S. Conference of Mayors, was pulled aside and told the city was receiving about \$38 million for flood control in the city's south end, said his spokesman, Av Harris.

The grant was awarded by the U.S. Department of Housing and Urban Development and the Rockefeller Foundation as part of the \$1 billion National Disaster Resilience Competition for states and communities affected by major disasters between 2011 and 2013. Ganim's predecessor, Bill Finch, was a strong backer of the application.

"Climate change is real and we must think more seriously about how to plan for it," said Julián Castro, the HUD secretary who recently visited Hartford, New Haven and Bridgeport.

Connecticut's entry on behalf of the state was put together by the Connecticut Institute for Resilience and Climate Adaptation, a joint center run by UConn and the state Department of Energy and Environmental Protection, the Office of Policy and Management and other departments. It had asked for nearly \$115 million for resiliency work in Bridgeport and New Haven and for resiliency planning in the Connecticut coastal counties most damaged by Storm Sandy.

HUD only mentioned Bridgeport in its announcement, but the state also is receiving planning funds for floodplain design guidelines and further work on the "Connecticut Connections Coastal

Resilience Plan" in Fairfield and New Haven counties.

The HUD announcement upstaged plans for a press conference Friday at noon by Gov. Dannel P. Malloy, U.S. Sen. Richard Blumenthal, and the U.S. representative whose districts include Bridgeport and New Haven, Jim Himes of the 4th District and Rosa L. DeLauro of the 3rd District.

A number of Bridgeport's coastal neighborhoods have suffered repeated flooding, most notably during Sandy and the earlier Tropical Storm Irene. Finch, who lost a Democratic primary last summer, had been active in looking for means to remediate flooded areas, which included moving some housing projects. The new Barnum train station was partly designed to provide a transportation hub for those residents that might be moved to other areas of the city.

But it will be the new Ganim administration that will have to work with the institute and the Malloy administration on formal plans in keeping with the parameters of the application.

"These initiatives transcend administrations," April Capone, who is handling the application process as part of her intergovernmental affairs duties at the Office of Policy and Management, said in November. "Yes, we did have a mayor who was very progressive. This does not hinge on one elected official."

The new mayor was excited to receive the grant, Harris said.

HUD said the state's coastal resilience plan is focused on "reconnecting and protecting economically-isolated coastal neighborhoods through investments in mixed green and gray infrastructure that protect against flooding while strengthening their connectivity to existing transportation nodes."

Connecticut was among 40 finalist states, cities and counties applying for the funding. Thirteen received awards. New York and New Jersey were already promised at least \$181 million. In the end, New York state (\$176 million) and New York City (\$38.5 million) got \$214 million; New Jersey got only \$15 million; and Louisiana and New Orleans got the most, nearly \$234 million.

Springfield, Mass., received \$17 million.

[January 17, 2016 - Connecticut Sea Grant awards funds for six research projects. The Day](#)

Groton - Six research projects that will benefit Long Island Sound and coastal Connecticut with a total value of \$879,091 will be funded by the Connecticut Sea Grant College Program, according to an announcement on Friday.

The projects help achieve objectives set out in the program's four thematic focus areas: healthy coasts and oceans; safe, sustainable fisheries and aquaculture; resilient coastal communities and economies; and environmental literacy and workforce development.

The recipients are:

* Wei Zhang and Christine Kirchhoff of the University of Connecticut Department of Civil and Environmental Engineering, for research aimed at reducing coastal community vulnerabilities by evaluating and comparing trade-offs in residential home building designs to reduce risk of wind and flood damage. The towns of Fairfield and Milford are participating in the study.

* Stephen Swallow of the UConn Department of Agricultural and Resource Economics, who will lead a team of investigators who will survey Connecticut coastal residents to examine their preferences and values with respect to various measures to preserve coastal areas and resources in the face of sea level rise.

* Robert Mason and Zofia Baumann of the UConn Department of Marine Sciences, who will examine mercury concentrations and methylation in water and sediments, and how it

accumulates into marine fish and shellfish. They will sample multiple locations along the Connecticut coast that differ in mercury sediment concentration levels.

* Hans Dam of the UConn Department of Marine Sciences, who will investigate the combined effects of warming waters and ocean acidification on a key species of copepod, *Acartia tonsa*. Copepods, small zooplankton, are the most abundant animals in the ocean and Long Island Sound, and are a primary food source for larger animals such as fish. Hannes Baumann and Michael Finiguerra are also participating in the project.

* Penny Vlahos and Michael Whitney of the UConn Department of Marine Sciences, who will determine chemical budgets and fluxes of carbon and nitrogen in Long Island Sound, to determine how much goes into the Sound and back out to the ocean, by what routes, and how fast. This information is essential to effectively manage water quality in the Sound.

* Finiguerra, of the UConn Department of Ecology and Evolutionary Biology, and Rachel Gabriel, of the UConn Neag School of Education, will bring together an educational researcher, a coastal scientist, and high school teachers to develop and test a variety of education strategies to increase coastal literacy.

Connecticut Sea Grant, part of the National Sea Grant College Program, is a federal and state partnership based at UConn's Avery Point campus and administered by the National Oceanic and Atmospheric Administration.

[January 15, 2016 - Commissioner Klein Announces Federal Funding to Assist Disaster Recovery Efforts for Connecticut Residents, Department of Housing Press Release](#)

(HARTFORD, CT) - Today, State Department of Housing (DOH) Commissioner Evonne M. Klein, announced more than \$7 million in grants that were awarded to cities and towns across Connecticut who were most affected by Superstorm Sandy. These grants will be used for planning activities to develop mitigation and resiliency plans.

Last year the state was awarded \$71.8 million through the U.S. Department of Housing and Urban Development's (HUD) Community Development Block Grant Disaster Recovery (CDBG-DR) program. The CDBG-DR funding has been distributed by DOH to help the most impacted and distressed communities in Connecticut recover from Superstorm Sandy. This is one of the final allotments being made under the program to help improve infrastructure and planning to make critical upgrades that will combat against future storms.

"These grants are yet another way that Connecticut is rebuilding after the devastation of Superstorm Sandy," said Commissioner Klein. "Thanks to the leadership of Governor Malloy, who has made housing and resiliency a top priority, we were able to award these grants to several municipalities, state agencies, and organizations across the state to make proactive efforts to combat against future storms."

The CDBG-DR Tranche # 2 Planning for Mitigation and Resiliency award recipients are as follows:

*** Fairfield-South Benson Pump Water Station & Drainage Improvement- \$300,000**

The grant will be used to provide flood protection to more than 1,000 residences, a school, a museum, and Town Hall.

*** Fairfield-Planning Resiliency for Downtown Fairfield Using Green Infrastructure- \$100,000**

The grant will be used to provide guidance needed to direct all future development and redevelopment of downtown. It will incorporate green infrastructure that will reduce future storm water flooding problems.

*** Fairfield-Pine Creek Dike Elevation Plan- \$300,000**

The grant will provide funding needed to determine the appropriate height to raise the existing dike, helping to protect against future storms.

*** Fairfield-Fairfield Beach Design of Beach Sand Replacement- \$100,000**

This grant will help make town owned beaches more resilient against future storms.

*** Fairfield-Riverside Drive Coastal Resiliency and Flood Mitigation Study- \$250,000**

This grant will fund a study to determine needed infrastructure upgrades to alleviate damage from future flooding.

*** Milford-Pelham Street Planning and Design for Resiliency and Public Access- \$150,000**

This grant will provide funding to replace a seawall and a staircase on Pelham Street to reduce erosion and will improve public access to area beaches.

*** Milford-Crescent Beach Planning & Design for Beach Resiliency and Stabilization- \$225,000**

The proposed project contains 3 phases that will increase resiliency on Crescent beach and the surrounding area to protect the community against future storms.

*** Milford-Gulf Street & Welch's Point Road Planning and Design for Stabilization & Resiliency- \$275,000**

This project will determine needed infrastructure upgrades and will stabilize the shoreline and harden nearby roads against future storms.

*** Milford-Walnut & Wildemere Beach Study for Resiliency and Stabilization- \$325,000**

This project will help make hard and green infrastructure improvements to stabilize the shoreline.

*** Stonington-Coastal Resilience Plan- \$150,000**

The project is intended to be a comprehensive study of coastal resiliency and is intended to improve area infrastructure, housing, transportation, and economic development.

*** West Haven-Community Coastal Resilience Plan & Wastewater Treatment Facility Outfall Feasibility Study- \$278,000**

The project is intended to be a comprehensive study that will produce recommendations that will benefit housing, transportation, public facilities, and infrastructure.

*** Old Saybrook-Community Coastal Resilience Study & Infrastructure Evaluation- \$125,000**

The project will fund a Community Coastal Resilience Study for the Town of Old Saybrook. The study will produce recommendations for regulatory tools that will benefit housing, transportation, public facilities, and infrastructure.

*** New Haven-Residential Planning and Demand Analysis for the Redevelopment of Church Street South \$500,000**

The project will outline strategic goals for the redevelopment of a blighted and environmentally hazardous residential property. It will determine the most appropriate residential and mixed-use developments needed in the area, and will make use of planning initiatives included in existing storm water and flood mitigations studies. The plan will also evaluate current roadway design, potentially resulting in a new road and pedestrian corridor from Union Station to Church Street.

*** Westport-Downtown Westport Flood Resiliency Planning: Master Drainage Plan & Stream Study \$650,000**

This grant will fund a study of the major stream tributary that collects water from the upper reaches of the town and causes flooding in Downtown Westport. The study of current drainage conditions and issues will attempt to identify the causes of flooding and provide suggested improvement measures.

*** New London-Shaw's Cove Pump Station Steel Pile Wall Reconstruction \$120,000**

This project will evaluate the Shaw's Cove levee and reconstruction, which is a critical infrastructure component in the city's flood control plan. Located in a vulnerable location, the levee protects the Shaw's Cove Pump Station and the fuel holding tanks as well a variety of housing units and businesses and is in need of improvements.

*** Waterford-Climate Change Vulnerability: Risk Assessment & Adaptation \$175,000**

The study will focus on municipal infrastructure and natural resources most likely to be affected by future storms. The study will complete an analysis of its drainage infrastructure, roadways, and sewer pump stations in order to identify priorities for increasing resiliency.

*** University of Connecticut-Scoping of Dredge Material Islands & Wetlands for Green Infrastructure Resiliency Projects- \$317,709**

This grant will fund a study to determine the feasibility, of using dredge materials to build fringe wetlands or offshore islands to prevent erosion and improve drainage.

*** CT Rises-Long Term Planning & Recovery \$111,550**

Individual plans for cities and towns across the state will be developed to implement a Multi-Agency Resource Center (MARC), which is the most effective method of getting information and assistance to residents in a timely manner following a major storm. The grant will help develop a permanent portal for future disaster assistance.

*** Lower Connecticut River Valley Council of Governments-Regional Long Term Recovery - Land Use Resiliency Plan \$100,000**

The goal of the study is to create a clear path to recovery after future storms and plan for initiatives to build resiliency throughout the region. The plan will establish the overall responsibilities for emergency recovery operations as well as plans for responding to future storm events. This will be done by encouraging partnerships between local, regional and state governing bodies, the private business sector, nonprofits, social service agencies, emergency responders, and area residents.

*** Connecticut Department of Public Health (DPH)-Drinking Water Vulnerability Assessment and Resiliency Plan- \$600,000**

The plan will help identify vulnerabilities, as well as take measures to enhance resiliency in areas with drinking water supplies.

*** Department of Energy and Environmental Protection (DEEP)-Municipal Resilience Planning Assistance Project \$1,205,450**

DEEP will develop tools for municipalities in the four counties affected by Superstorm Sandy to assess the vulnerability of infrastructure (including waste water treatment plants, pump stations, roads, and public safety assets) to flooding from rivers and storm surges now and in the next 25-50 years when it is likely that sea levels will be higher. DEEP will create technical assistance programs for municipalities to test and evaluate their tools and supports that currently exist.

*** Department of Emergency Services and Public Protection (DESPP)-Fuel Study: Improve Resiliency through the Strengthening of the Fuel Network \$200,000**

The study will enhance public safety measures by addressing current municipal plans that could adversely impact evacuations of residents from at-risk areas following an emergency event. The study will evaluate rapid response planning and responding immediately following a major storm.

*** Division of Emergency Management & Homeland Security (DEMHS)-Update of the State of Connecticut's Natural Hazard Mitigation Plan \$50,000**

This grant will fund a plan to identify the State's mitigation policies and capabilities to reduce risk and future losses. This task includes a review of the current plan, updating the risk assessment model, and determining a final outcome with FEMA.

*** Department of Energy and Environmental Protection (DEEP)-Development of a Data Management System & Decision Support Tool to Assess Water Availability & Sustainability \$530,000**

This grant will fund a study to address the predictive tools needed to evaluate the state water resource capacity, sustainability, and infrastructure. The proposal is for a pilot project in the southeastern Connecticut coastal area including New London County and part of Middlesex County.

Local & State News Clips

[January 22, 2016 - Connecticut Shoreline Getting More Resilient Thanks to Federal Grant, WNPR](#)

Connecticut has received a \$54 million federal grant to improve shoreline infrastructure and make portions of the state more resilient.

On Friday, officials said Connecticut was one of just a few states to receive the grant from the National Disaster Resiliency Competition.

Much of the money will be used to help Bridgeport's coastal communities, including the city's South End, damaged after flooding from Superstorm Sandy in 2012.

Governor Dannel Malloy said climate change is real, and this federal money will help make the most vulnerable portions of the state safer. He said the federal grant will pay for work from New Haven to the Greenwich border.

"It will serve as a blueprint," Malloy said, for what Connecticut needs to do to strengthen other portions of the state along Long Island Sound in advance of future storms.

The grant will specifically pay for:

* Bridgeport - South End East Resilience Network - \$34,368,759: Elevation of University Avenue and construction of a greenway earthen berm to create a new baseline for the establishment of an urban coastal community that will be protected against future storms and sea level rise, removing the risk to reinvestment and inviting new development to strengthen this extension of downtown Bridgeport.

* Bridgeport - Community Design Center - \$1,000,000: Construction and rehabilitation of an anchor community center in the South End to serve as a design center and central location for future recovery efforts.

* Bridgeport - South End District Energy Infrastructure Study - \$350,000: Analysis of opportunities to utilize micro-grids, co-generation systems, and alternative energy sources to limit disruptions in energy supply due to emergencies.

* New Haven/Fairfield County - Floodplain Design Guidelines - \$330,000: Development of new guidelines to incorporate cutting edge flood mitigation technologies

* New Haven/Fairfield County - Connecticut Connections Coastal Resilience Plan - \$18,228,600: Extend this existing planning effort to more communities in New Haven and Fairfield Counties with the goal of providing accessible down-scaled inland and coastal flooding information at the watershed scale for inland and coastal municipalities.

[January 22, 2016 - Making the shoreline more flood-proof, WTNH News 8](#)

HARTFORD, Conn. (WTNH) - Shoreline residents are no strangers to the damage that can be done with a big storm, damage that's been worse than ever in the past five years. Friday, the state got a big grant from the feds that will help the state do even more to shore-up the shoreline for future storms.

Over the past five years, Connecticut has made many storm related improvements like installing generators at all the gas stations on the Parkway and clearing the treeline along most highways.

The extreme vulnerability of Connecticut shoreline communities at the lower end of Long Island Sound from Greater New Haven to Greenwich, was demonstrated vividly in the storms of the early part of this decade. Superstorm Sandy saw the most rapid increase in water in the lower end of the sound that had ever been recorded flooding many places that had never flooded before. More than 300 homes have been rebuilt or are in the process of being rebuilt with aid from the federal government.

During Hurricane Irene, the high water forced United Illuminating to shut down a main power substation in Bridgeport that resulted in a major portion of the state's largest city to be without power for several days. It has since been shored up, but this high water incident taught UI and state officials many lessons about climate change in Connecticut.

"These monies will be used to execute projects and to plan in an exhaustive fashion the steps that we can take to make Connecticut safer," said Gov. Malloy at a news conference at the State Armory in Hartford.

The Governor and members of the Congressional delegation announced that after several years of working on applications following those storms, the federal government is awarding the state nearly \$55-million to help make the lower Connecticut shoreline more flood proof. "Much of this work is from the New Haven area to Greenwich border. It will be a blueprint for what we need to do in the rest of the portions of Long Island Sound," added Malloy.

In New Haven and its shoreline suburbs, the money will fund engineering flood mitigation plans and develop more micro grids so that areas like town centers have power even if there is a larger power outage.

In Bridgeport, the money will be used to elevate flood prone University Avenue and other areas in the South End that were badly hit by Irene and Sandy.

The projects in Bridgeport's South End will not just repair past damage it will help that area develop in the future because those interested in investing there will feel more confident knowing they won't be wiped out by a flood.

[January 7, 2016 - Westport receives \\$650,000 flood grant. CTpost](#)

WESTPORT - The state has awarded the town \$650,000 in federal grant money to prevent damage from floods.

First Selectman Jim Marpe announced the award Thursday. The federal Department of Housing and Urban Development funds the grant and the state Department of Housing made the award selection.

According to a prepared statement, \$400,000 of the award will fund a master drainage plan for the town, and the balance will pay for a stream analysis and planning study of Dead Man's Brook.

"These projects will help mitigate the effects of flooding in downtown and will help make Westport more resilient when storm events do impact the town," Marpe wrote.

[January 4, 2016 - Massive rail plan leaves Connecticut hopeful but mystified. The CT Mirror](#)

Nearly four years and \$30 million after the Federal Railroad Administration began looking at how to reinvent the Northeast Corridor rail system, there is a proposal. In fact three of them in a nearly 1,000-page environmental impact statement.

NEC Future, as it is called, offers rail improvement choices that range from bare-bones fixes for noted choke points and other problems on the existing line to entire second lines that in Connecticut could re-route historic travel patterns.

It is also prompting a good deal of exasperation from officials, communities and all manner of interest groups in Connecticut, even though many have been begging for an improved rail system for years, if not decades.

[Continued...](#)

Errata: The above article appeared in the January 12, 2016 Resilience Roundup and was attributed to The Day. The attribution was not correct. The original article appeared in the CT Mirror written by Jan Ellen Spiegel and was republished in The Day through an agreement between those papers.

National News Clips

[January 25, 2016 - Ocean Warming is Making Floods Worse, Study Finds. Climate Central](#)

Floodwaters that washed icy brine into streets and homes along the eastern seaboard during Saturday's blizzard reached heights in some places not experienced since Hurricane Sandy. "I just hope it isn't a sign of things to come," Pam Bross told a local newspaper as she mopped up the market she operates on a New Jersey street not normally reached by storm surges.

With tides and storm surges inching upward and inward, worsening floods are harbingers of even soggy times ahead. As the weekend's winter storm hurtles across the Atlantic Ocean, bringing its flood risks to Europe, new research is pointing to an outsized role that ocean warming has been playing in raising sea levels - a problem normally associated with melting land ice.

Water expands as it heats up, and oceans have been absorbing most of the heat trapped by greenhouse gases released by fossil fuel burning, deforestation and animal farming. A new

study blames expansion of warming waters for as much sea level rise from 2002 through 2014 as the melting of all the glaciers and the Greenland and Antarctic ice sheets combined.

"Satellite observations show that sea level rise over the last decade is explained, by about 50 percent, by thermal expansion," said Roelof Rietbroek of the University of Bonn, who led the research, which was published Monday in Proceedings of the National Academy of Sciences.

The team of scientists led by Rietbroek concluded that thermal expansion caused seas to rise globally during the 12 years studied by about two-thirds of an inch, with ice melt and other factors contributing to an overall rise of twice that amount.

[Continued...](#)

[January 25, 2016 - Is Climate Change Supercharging Storms Like Jonas And Sandy More Than We Thought?, Climate Progress](#)

A new analysis suggests that human-caused climate change may be having a much bigger impact on East Coast superstorms than we thought. A global slowdown in crucial Atlantic Ocean currents - caused by global warming - appears to be supercharging both precipitation and storm surge.

Once-in-a-century extreme weather events like Superstorm Sandy and record-shattering Supersnowstorm Jonas and have become more common in recent years. We've known for a while that record-setting blizzards and other intense precipitation events have been fueled in part by the extra moisture in the air from warming-driven sea surface temperatures (SSTs). I discussed the science on this at length in my Friday post on Jonas.

We also know that warming-driven East Coast SSTs helped fuel Superstorm Sandy in many ways. As Dr. Jennifer Francis of Rutgers University's Institute of Marine and Coastal Sciences - one of the world's leading experts on the connection between climate change and extreme weather - explained back in 2013:

"Abnormally high sea-surface temperatures all along the eastern seaboard at the time, which must have some component associated with globally warming oceans, likely helped Sandy maintain tropical characteristics longer and allowed the storm to travel farther northward than would be expected in late October. Warmer ocean waters would also increase evaporation rates, adding to the moisture and latent heat available to the storm."

The key question has always been what component of the recent rise in eastern seaboard SSTs (and sea level rise, for that matter) can be attributed to global warming. In general, many climatologists have tended to conservatively attribute just the amount driven by the global average rise in SSTs and sea levels.

But the fact is that both East Coast SSTs and sea levels have been rising considerably faster than the global average. Recent research increasingly suggests that this apparent anomaly may not be random but rather driven in large part by global warming itself.

[Continued...](#)

[January 24, 2016 - Southern Jersey Shore Hit With Severe Flooding by Snowstorm's High Tides, New York Times](#)

The southern end of the Jersey Shore, which was largely spared by Hurricane Sandy three years ago, had the most severe flooding in the state during the weekend blizzard, as high tides sent icy water rushing into darkened homes and businesses.

In Cape May County - the southern tip of the shore - tides as high as 10 feet flooded garages

and ground floors. Some coastal residents who chose not to evacuate were stranded without power for more than 24 hours.

The barrier islands to the north that were ravaged by Hurricane Sandy in late 2012 fared better than many had feared. After a high tide on Saturday morning caused moderate flooding on those island, the winds shifted and kept the water from rising any higher, emergency managers said on Sunday.

By late morning, Frank Donato, the emergency management coordinator for Ocean City, said he was sweeping about eight to 10 inches of water out of his garage, half as much as he had to contend with after Hurricane Sandy.

"We know we definitely had people that had water in their homes and a lot of cars were stranded and flooded out, and I'm sure the beaches took a beating," Mr. Donato said. But overall, he said, the damage appeared manageable, and paled in comparison with the problems closer to Cape May.

The blizzard, he said, pushed the water to levels that were higher in the southernmost section of the shore than in the central and northern sections devastated by the hurricane. The highest tide in Ocean City came on Saturday morning and did not get much above eight feet, compared with a 10-foot tide during the hurricane, he said. The next two, on Saturday night and Sunday morning, were lower despite a full moon, he said.

Gov. Chris Christie, a Republican, was relieved enough about the condition of the state that he headed back to New Hampshire on Sunday afternoon to continue his presidential campaign, less than 48 hours after returning to New Jersey. Before he left, he said at a news conference in Bedminster, N.J., that there had been only "minor to moderate flooding" along the shore and added, "We don't see any significant property damage happening in Cape May County."

Mr. Christie said that "folks did have to leave because of lack of power" in some southern barrier-island communities including Avalon, North Wildwood, Sea Isle City and Stone Harbor. On Sunday morning, about 18,000 homes still had no electricity, but the governor said that power would be restored to about 90 percent of them by the end of the day.

[Continued...](#)

[January 21, 2016 - HUD Awards \\$1 Billion Through National Disaster Resilience Competition, HUD Press Release](#)

WASHINGTON - Today, U.S. Department of Housing and Urban Development (HUD) Secretary Julián Castro and the Rockefeller Foundation announced the winners of the \$1 billion National Disaster Resilience Competition (NDRC). Secretary Castro traveled to Norfolk, Virginia where he joined Governor Terry McAuliffe in announcing the winners of the competition. Through NDRC, HUD will provide funding for resilient housing and infrastructure projects to states and communities that were impacted by major disasters between 2011 and 2013.

"Climate change is real and we must think more seriously about how to plan for it," said HUD Secretary Julián Castro. "The grants we award today, and the other sources of capital these grants will leverage, will make communities stronger, more resilient and better prepared for future natural disasters such as floods and wildfires. The National Disaster Resilience Competition exemplifies how government can work hand-in-hand with the philanthropic and private sectors to create lasting partnerships that will allow us to together face the challenges of tomorrow."

"The National Disaster Resilience Competition demonstrated where we are moving as a country, embracing resilience as a way to build a better future," said Dr. Judith Rodin, President of The Rockefeller Foundation. "The communities awarded funding through the Competition - and in fact all those that competed - today have a greater awareness of their vulnerabilities and

strengths and what they need to do to be ready for whatever comes their way. This is the heart of resilience."

The competition took place in two phases, with final winners selected from previously announced 40 states and local communities designated as finalists. Finalists were then asked to submit specific projects that would advance their community's resilience plans. More than 25 federal agencies or offices, and 100 industry experts were involved in the implementation of the 16-month long competition.

NDRC is funded through Community Development Block Grant-Disaster Recovery (CDBG-DR) appropriations provided by the Disaster Relief Appropriations Act of 2013.

NDRC was developed in response to requests from state, local, and tribal leaders seeking to build resilience and better prepare their communities for the impacts of climate change, following the model of the Rebuild by Design Competition, and the recommendations of the Hurricane Sandy Rebuilding Task Force. The National Disaster Resilience Competition was designed to promote risk assessment, stakeholder engagement, and resilience planning in communities where the risks of disaster are projected to increase substantially due to climate change.

Partnership with Rockefeller Foundation

The Rockefeller Foundation worked closely with HUD and state and local governments to encourage and support a culture of resilience around disaster preparedness and planning in American communities. Through a companion effort, the Rockefeller Foundation provided targeted technical assistance to the applicants and supported a stakeholder-driven process, informed by the best available data, to identify recovery needs and innovative solutions. The strategic partnership between the Rockefeller Foundation and HUD drew on the successful strategies of the Rebuild by Design competition, where the Foundation provided lead support for administration of the competition and community engagement.

Awardee Summaries

State of California:

The State of California will receive \$70,359,459 in NDRC funding to pilot its Community and Watershed Resilience Program in Tuolumne County, which was severely affected by the 2013 wildfires. The Watershed Resilience Program will focus on supporting forest and watershed health, developing a bioenergy and wood products facility, and a community resilience center, which will create a long-term economically and environmentally sustainable program that can be replicated throughout the state.

State of Connecticut:

The State of Connecticut will receive \$54,277,359 in NDRC funding to support a pilot program in Bridgeport that is part of the State's broader Connecticut Connections Coastal Resilience Plan. The Coastal Resilience Plan is focused on reconnecting and protecting economically-isolated coastal neighborhoods through investments in mixed green and gray infrastructure that protect against flooding while strengthening their connectivity to existing transportation nodes.

State of Iowa:

The State of Iowa will receive \$96,887,177 in NDRC funding to support the Iowa Watershed Approach, a holistic watershed-scale program designed to sustain its valuable agricultural economy while protecting vulnerable residents and communities. HUD funding will enable several watersheds to form Watershed Management Authorities, which will develop hydrological assessment and watershed plans, and implement pilot projects in the upper and lower watersheds, as well as invest in more resilient, healthy homes in Dubuque.

State of Louisiana:

The State of Louisiana will receive \$92,629,249 in NDRC funding to support its Louisiana Strategic Adaptations for Future Environments Program (LA SAFE). LA SAFE seeks to protect coastal wetlands in and around southeast Louisiana, retrofit communities to withstand increased flooding risk, and reshape high-ground areas to maximize their use and safety. The NDRC funds will also enable a tribal community on the Isle de Jean Charles, which has experienced a 98 percent loss of land to 1955, to relocate to a resilient and historically-contextual community.

City of Minot, ND:

The City of Minot will receive \$74,340,770 in NDRC funding to support its integrated approach to addressing climate change and recent upstream development that has increased the risk of frequent flooding. The City is launching a set of three integrated projects that will reduce flood risk and improve water management, build affordable and resilient neighborhoods connected to transit and job centers, and foster economic resilience through the creation of Centers for Technical Education.

State of New Jersey:

The State of New Jersey will receive \$15,000,000 in NDRC funding to support the creation of a Regional Resiliency Planning Grant Program that will help regions and communities that experience significant flooding to undergo a comprehensive planning process to identify and address vulnerabilities due to increased flooding risk, and for work with university partners to develop a toolkit of best practices for communities to assess their flooding risks and develop resilience building codes and plans.

City of New Orleans:

The City of New Orleans will receive \$141,260,569 in NDRC funding to enable the establishment of its first-ever Resilience District in the Gentilly neighborhood. HUD funding will support several integrated initiatives that include coastal restoration, workforce development, and creating parks and green streets that will turn the Gentilly neighborhood into a national model for retrofitting post-war suburban neighborhoods into resilient, safe and equitable communities of opportunity.

City of New York:

The City of New York will receive \$176,000,000 in NDRC funding to support the development of the Lower Manhattan Project and Connect Project which will construct a coastal protection system that will enhance the connection between neighborhoods, add green spaces and seating areas, and retail areas, and protect public housing projects that are vulnerable to storm surge and flooding.

State of New York:

The State of New York will receive \$35,800,000 in NDRC funding to support public housing resiliency pilots throughout the State. The State of New York will provide funding to public housing authorities to implement site-specific resiliency recommendations based on new resilient guidelines. This will enable the State to repair damage from recent disasters like Superstorm Sandy and Hurricane Irene and pilot new and innovative approaches to build resilience in low-income multifamily properties.

Shelby County, TN:

Shelby County will receive \$60,445,163 in NDRC funding to support the Greenprint for Resilience Project, which will build a network of green infrastructure projects that will increase resilience to future flooding while increasing amenities, such as trails and recreation areas, for area residents. In addition to relocating areas exposed to repetitive flooding, the Greenprint project will develop new floodplains and create wetlands and detention areas to create more storage for floodwaters.

City of Springfield, MA:

The City of Springfield will receive \$17,056,880 in NDRC funding to support the creation of an Urban Watershed Resilience Zone. The Resilience Zone will include economically-distressed neighborhoods, and will create an innovation and job training center, create a new program for property owners to restore affordable housing units, and the installation of a heat and power plant to provide non-grid energy to critical facilities in the event of power loss during a disaster.

State of Tennessee:

The State of Tennessee will receive \$44,502,374 in NDRC funding to support its Rural by Nature Initiative. The initiative is a federal, state and local collaborative effort to create rural resilient communities along the Mississippi River. HUD funding will help with the restoration of two miles of degraded floodplain, the rehabilitation of a wastewater lagoon, and the creation of wetlands and recreation space.

Commonwealth of Virginia:

The Commonwealth of Virginia will receive \$120,549,000 in NDRC funding to support the Ohio Creek Watershed and the Coastal Resilience Laboratory and Accelerator Center (CRLAC). The Ohio Creek Watershed project will install a series of distributed green infrastructure projects such as rain barrels and rain gardens, and combine them with coastal shoreline development to address flooding due to storm surge and torrential rains. The CRLAC will create an economic development center that supports technical and organizational innovation to help businesses respond to climate change while ensuring access to and better management of water resources.

[January 21, 2016 - Hampton Roads to get more than \\$120M to combat future flooding. The Virginian-Pilot](#)

More than four years after Hurricane Irene walloped Hampton Roads, the region is getting a huge pool of money to try to prevent even worse disasters caused by rising seas. Virginia was awarded more than \$120 million Thursday afternoon as part of a federal contest, the National Disaster Resilience Competition.

The money was announced by Julian Castro, secretary of the U.S. Department of Housing and Urban Development.

During the announcement at the Grandy Village Learning Center, steps from the Elizabeth River, Castro praised Virginia's plan as "truly innovative." Gov. Terry McAuliffe smiled broadly, bragging that Virginia got more money than the seven other winning states. (New York City and New Orleans got more than Virginia, however.)

Most of the money will be spent in Norfolk, and mayor Paul Fraim drew laughs when he said he wanted to "thank the governor in advance for sending almost all of that money " to his city. HUD awarded money for two of three major projects proposed in the city.

Plans in the Ohio Creek watershed include elevating portions of two roads, Kimball Terrace and Westminster Avenue, improving marshes to capture stormwater in Chesterfield Heights and creating new berms, walls and an underground detention area.

Meanwhile, a "coastal resilience accelerator" will attempt to spur business innovation. Its exact location hasn't been determined, but plans call for it to be in Norfolk.

Virginia's application sought \$493 million, more than four times as much as it was awarded, so many other proposed projects won't be funded - at least for now.

Plans for the Newton's Creek watershed in Norfolk, including improvements in the Harbor Park and St. Paul's areas, didn't make the cut. Nor did any proposals from Newport News and Chesapeake, where plans included elevating Bainbridge Boulevard and a voluntary home buyout program to allow some residents to move to safer areas. In Newport News, they included stabilizing the Chesapeake Avenue seawall, stream restoration along Salters Creek and a new drainage channel, gate and pump station.

A commission created by former Gov. Tim Kaine found that climate change was leading to more frequent and more severe storms. Meanwhile, the land in Hampton Roads is slowly sinking, or "subsiding," relative to sea level.

Combine the two trends and, as Virginia wrote in its application, the region is "second only to New Orleans as the largest population at risk from" sea level rise.

And even if Hampton Roads could retreat from the sea, it wouldn't want to. The water that threatens its future is also its lifeblood, with the Navy and the Port of Virginia the largest economic engines.

[Continued...](#)

[January 21, 2016 - 2015 was warmest year since records began in 1880, USA Today](#)

Fueled by a combination of the natural El Niño climate pattern and man-made global warming, 2015 was the planet's warmest year since records began in 1880, federal scientists announced Wednesday.

The average temperature across the Earth's land and ocean surfaces was 1.62 degrees above average in 2015, according to the National Oceanic and Atmospheric Administration (NOAA). It was the largest margin by which an annual global temperature record has ever been broken, NOAA said.

The global average temperature in 2015 was 58.62 degrees, breaking the record set last year by about a third of a degree, according to NOAA's data. Although these numbers sound small, they're quite large in climate science, where records are often broken by tenths or even hundredths of degrees.

A separate analysis of data from NASA concurred with NOAA's findings. Most of the warming has happened in the past 35 years, and 15 of the 16 warmest years have occurred since 2001, NASA said.

"2015 was remarkable even in the context of the larger, long-term warming trend," said Gavin Schmidt, director of NASA's Goddard Institute for Space Studies. And 2016 is likely to be even warmer than 2015, he added.

[Continued...](#)

[January 20, 2016 - Atlantic, Caribbean storms more destructive as temperatures rise: study, Reuters](#)

NEW YORK (Thomson Reuters Foundation) - Hurricanes in the Atlantic and Caribbean oceans will grow more than twice as powerful and damaging as ocean temperatures rise from global warming, a new study says.

Warming seas could produce more rainfall and far more destructive storm surges of water along the ocean shorelines in the next 50 to 100 years, said the study by U.S. scientists published this week in the journal *Geophysical Research Letters*.

"It could affect the entire Atlantic coast," said William Lau, a co-author and research associate at the University of Maryland's Earth System Science Interdisciplinary Center.

Simulation showed future storms with as much as 180 percent more rain than what occurred during Superstorm Sandy, which heavily damaged the Northeastern United States in 2012, he said.

"The rainfall itself is probably way out in the ocean, but the storm surge would be catastrophic," he said.

In 2012, Sandy killed 159 people and inflicted \$71 billion in damage as it battered the U.S. coast, especially in the states of New Jersey and New York. Nearly 200,000 households obtained emergency government assistance, and rebuilding remains stalled in some areas.

[Continued...](#)

[January 19, 2016 - Congress Actually Dealt with Climate Change in the 2016 Budget Bill. Really.. InsideClimate News](#)

President Obama's plan to safeguard the nation from increasing flood risk due to climate change was quietly green-lighted by Congress last month in the 2016 omnibus budget bill. It marks one of the only actions Congress took on global warming in all of 2015, and it came as a surprise considering the longstanding opposition from Republicans. And it is a critical one, several policy experts said. It will impact billions of dollars of federally funded construction projects across the country, from highways and bridges to hospitals and housing complexes, at a time when flooding in the U.S. is getting worse every year because of climate change.

"The policy illustrates the awareness that we should not build things that are vulnerable to flooding now or in the future," said Rob Moore, a policy analyst and director of the Natural Resources Defense Council's Water and Climate Team. "That may not seem like a revolutionary idea, but unfortunately it is. We have a long history of building things that easily get soggy."

Obama's plan, executive order No. 13960, mandates that all federally funded projects located in a floodplain be built higher and stronger than previously required. It is the first update to the Federal Flood Risk Management Standard since the policy was created 38 years ago. It applies to both new construction and rebuilding following a disaster.

[Continued...](#)

[January 18, 2016 - New York City to get \\$176 Million From U.S. for Storm Protections. New York Times](#)

New York City may soon be one step closer to building a new flood protection system around Lower Manhattan to guard against another storm like Hurricane Sandy. Sen. Chuck Schumer, a Democrat, said on Monday that the city would be awarded \$176 million in federal funding for the proposed project, through a national contest created by the Department of Housing and Urban Development to help communities recover from disasters and better prepare for them.

The money would be used to help fortify a stretch of shoreline from Montgomery Street on the Lower East Side to the northern tip of Battery Park City. Specific measures have not yet been determined, but could include adding sea walls and temporary flood walls that could be deployed before a storm, and building grass berms that could double as recreational areas.

"This project has gotten more money than any other in this rebuild contest," Mr. Schumer said.

[Continued...](#)

Announcements

CIRCA awards more than \$100,000 to support resiliency projects in Milford, New Haven, Northwest Hills COG, Waterford, and WestCOG through the Municipal Resilience Grant Program.

The Connecticut Institute for Resilience and Climate Adaptation (CIRCA) is pleased to announce the results of the first round of grants under its [Municipal Resilience Grant Program](#). The municipalities of Milford, New Haven, and Waterford and the Northwest Hills and Western Connecticut Council of Governments have been awarded funds to pursue projects that will not only increase their own local resilience, but also serve as learning tools for other communities hoping to replicate their success. CIRCA is pleased to provide grants to support the projects.

Several important criteria were considered by the CIRCA Executive Steering Committee when considering applications including the following:

- Does the proposed project enhance community resilience to the impacts of climate change and extreme weather?
- Does the proposed project have transferable results?
- Does the proposed project involve collaboration with CIRCA?
- Does the proposed project have measurable goals?
- Will the proposed project be completed in an 18-month timescale?
- Does the proposed project have multiple funding sources?
- Does the proposed project emphasize implementation?

Based on the above criteria, funding was awarded to the following projects. Brief descriptions of each project are below with more details on the CIRCA website.

City of Milford - Developing and Implementing a Restoration and Management Plan to Combat Threats and Challenges to Coastal Dune Resiliency in Urban Landscapes. Milford proposed restoring a degraded dune in a high-traffic area and developing a plan for post-restoration management of the dune. The goal of this living shorelines approach is to restore the natural buffering capacity of the dune to storms like Irene and Sandy

City of New Haven - New Haven Industrial Toolbox. The Commercial Industrial Toolbox will enhance the resilience of the City's commercial infrastructure to flooding and sea level rise by serving as a guidebook for the necessary steps all owners should take before a flooding event occurs.

Northwest Hills Council of Governments - Building Municipal Resilience and Climate Adaptation through Low Impact Development. The Northwest Hills Low Impact Design Manual will include the specific information needed by engineers and project designers to successfully construct LID projects.

Town of Waterford - Waterford Municipal Infrastructure Resilience Project. The town's Waterford Municipal Infrastructure Resilience Project is a two-part project that will assess the vulnerabilities of the sewer pumps stations as well as include an analysis of drainage at Gardiners Wood Road. CIRCA is pleased to fund the sewer pump station assessment and adaptation portion of the project.

Western Connecticut Council of Governments - Regional CRS Program. The Western Connecticut Council of Governments will take steps to create a regional CRS program to assist communities within Western Connecticut as they undertake the challenging CRS program.

CIRCA Matching Funds Program supports coastal adaptation research projects funded through the Connecticut Sea Grant College Program.

On January 15, 2016, the Connecticut Sea Grant College Program announced the awardees from their funding program for the period of 2016-2018. CIRCA was thrilled to see that two of the six funded projects were supported by Matching Funds from CIRCA. The projects will inform building designs for wind and flood hazards and assess coastal resident's willingness to pay for adaptation measures. The Institute looks forward to working with the research teams to help Connecticut's communities adapt to the impacts of climate change and extreme weather along the coast.

The CIRCA Matching Funds Program provides 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 is given to those projects that leverage independent funding awarded through a competitive process. Project proposals should develop knowledge and/or experience that is transferable to multiple locations in Connecticut and have well-defined and measurable goals.

The successful Connecticut Sea Grant and CIRCA Matching Funds research projects are as follows:

Wei Zhang and Christine Kirchhoff of UConn's Department of Civil and Environmental Engineering, aim to reduce coastal community vulnerabilities by evaluating and comparing trade-offs in residential home building designs for both wind and flood factors. New GIS-based resilience maps will be produced to show multi-hazard effects to help communities plan and build appropriately to reduce vulnerabilities to extreme weather events and sea level rise. The towns of Fairfield and Milford, CT are participating in the study.

Stephen Swallow of the UConn Department of Agricultural and Resource Economics, is leading a multi-disciplinary team of investigators that will survey Connecticut coastal residents to examine their preferences and values with respect to various measures to preserve coastal areas and resources in the face of sea level rise. They want to find out whether residents are more likely to support environmentally protective measures if they understand the value of ecosystem functions for public benefit. Results will give managers insight into the alternatives and tradeoffs, which are preferred, and how much residents are willing to pay for adaptation measures in coastal area to make communities stronger.

March 15, 2016 - Next review date for CIRCA Matching Funds Program. Up to \$100,000 available. For more information go to <http://circa.uconn.edu/funds.htm>

The CIRCA Executive Steering Committee is excited to announce its fifth 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.

April 15, 2016 - CIRCA Municipal Resilience Grant Program Round 2: Applications due April 15, 2016. Up to \$100,000 available. <http://circa.uconn.edu/funds-muni.htm>

The Connecticut Institute for Resilience and Climate Adaptation (CIRCA) is a partnership of the University of Connecticut and the Connecticut Department of Energy and Environmental Protection. The mission of CIRCA is to assist Connecticut towns and cities adapt to a changing climate and to enhance the resilience of their infrastructure.

CIRCA is requesting grant proposals from municipal governments and councils of government for initiatives that advance resilience, including the creation of conceptual design, construction (demonstration projects or other) of structures, or the design of practices and policies that increase their resilience to climate change and severe weather. This program is focused on implementation. The CIRCA Executive Steering Committee has made up to \$100,000 in funds available to municipal governments and councils of government for the execution of resilience initiatives.

Project proposals should develop knowledge or experience that is transferable to multiple locations in Connecticut and have well-defined and measurable goals. Preferable projects will be implemented in no more than an 18-month time frame. Preference will also be given to those projects that leverage multiple funding sources and that involve collaboration with CIRCA to address at least one of the following priority areas:

1. Develop and deploy natural science, engineering, legal, financial, and policy best practices for climate resilience;

2. Undertake or oversee pilot projects designed to improve resilience and sustainability of the natural and built environment along Connecticut's coast and inland waterways;
3. Foster resilient actions and sustainable communities - particularly along the Connecticut coastline and inland waterways - that can adapt to the impacts and hazards of climate change; and
4. Reduce the loss of life and property, natural system and ecological damage, and social disruption from high-impact events.

Information on past grant recipients is available at: <http://circa.uconn.edu/recipients-muni.htm>.

Eligible Applicants

All Connecticut municipalities and councils of government are eligible to apply. Partnerships are encouraged.

Proposal Deadline

An original and complete application must be received no later than April 15, 2016 by 5:00 PM.

Application materials can be found on the CIRCA website: <http://circa.uconn.edu/funds-muni.htm>.

CIRCA will host an informational webinar on March 17, 2016 at 11:00 AM. Please see the Municipal Resilience Grant Program webpage for registration details.

[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.

[Link to Complete RFP](#)

February 4, 2016 - Office of Policy and Management Applications for Responsible Growth and Transit-Oriented Development Grants DUE Feb. 4, at 4pm. Community resiliency is an eligible project.

The State of Connecticut Office of Policy and Management (OPM) has issued a Request for Applications for the Responsible Growth and Transit-Oriented Development Grant Program. Proposals under this grant program will be accepted from municipalities and regional councils of governments only, although partnerships, which may include non-profit and private entities, are encouraged.

This is a competitive grant program that provides financial support for the following:

1. construction projects that expand on previous state investment in transit-oriented development, as defined in Section 13b-79o of the Connecticut General Statutes, and/or
2. planning or construction projects that demonstrate responsible growth through their consistency with the Conservation & Development Policies: The Plan for Connecticut 2013-2018.

The deadline to submit a completed application is Thursday, February 4, 2016 at 4:00 pm. Questions should be directed to Matthew Pafford, at either Matthew.Pafford@ct.gov Office of Policy and Management, 450 Capitol Avenue MS# 54ORG, Hartford, CT 06106-1379.

http://www.ct.gov/opm/cwp/view.asp?a=3006&Q=383284&opmNav_GID=1386&opmNav=

One of the types of projects that is eligible for funding is as follows:

Projects that promote community resiliency in response to extreme weather events, and that are supportive of responsible growth and/or TOD



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).

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