

# Connecticut Department of Energy and Environmental Protection



Connecticut Department of  
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

# Resilient Communities & Businesses – Preventing Pollution from Chemicals

Date: April 18, 2019

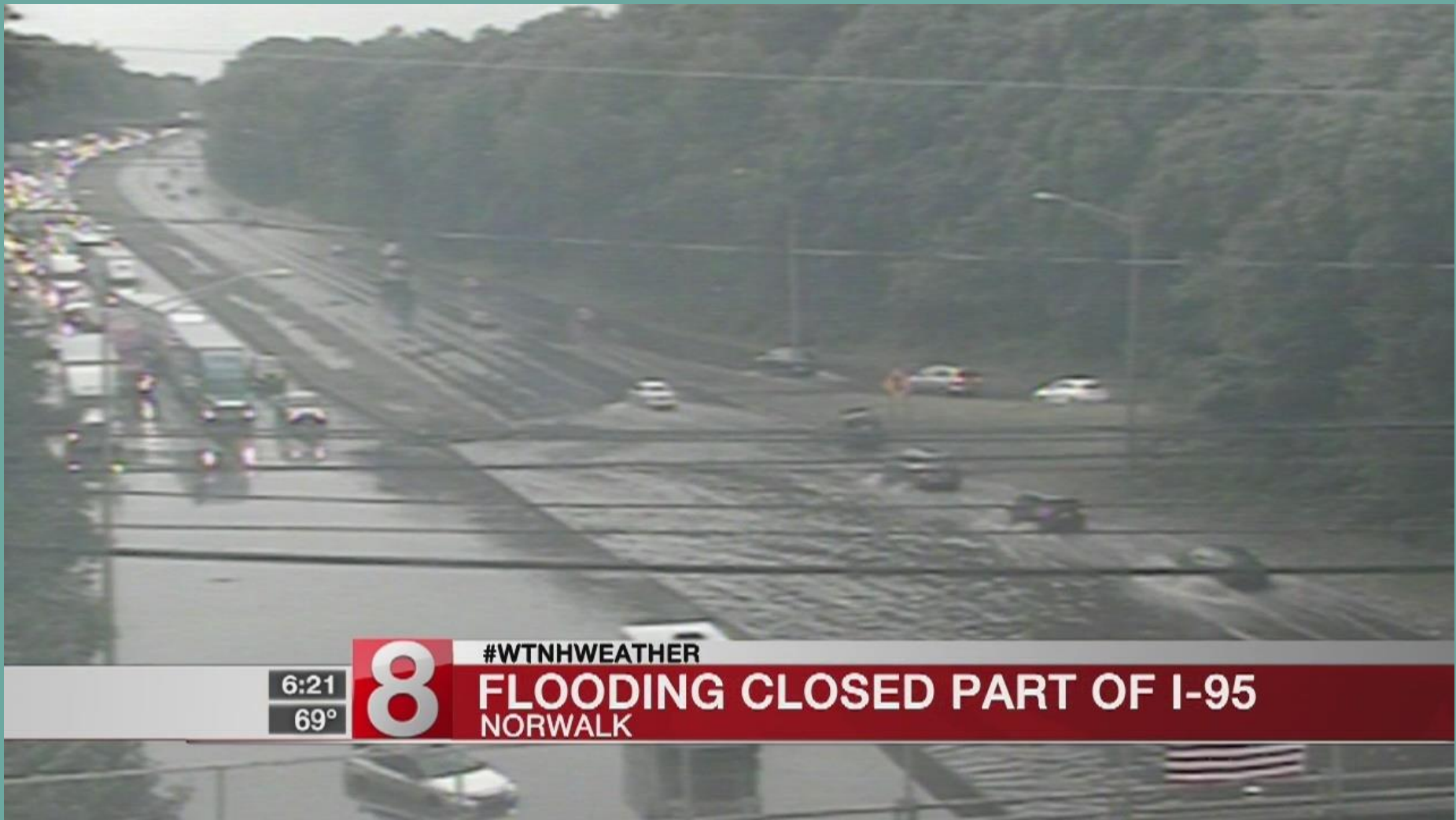
Presented by: Connie Mendolia & Kim Trella

Event / Location: CRCOG LEPC



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# Fall 2018



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# CT - October 2018

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**Fairfield Police, CT** @FPDCT Follow

Coastal Flood Warning remains in effect for our area until 3PM. Tides 2.5-3.5 feet above normal. Water is rising along Fairfield Beach Road which is impassable from the 1200 block on. Emergency personnel on scene assisting in evacuating residents if necessary. [@FDFairfield](#)

10:12 AM - 27 Oct 2018

4 Retweets 2 Likes

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**Fairfield Police, CT** @FPDCT

FPD is committed to maintaining a safe community through Professionalism, Honor & Excellence. TO REPORT AN EMERGENCY DIAL 911 - Twitter is not monitored.



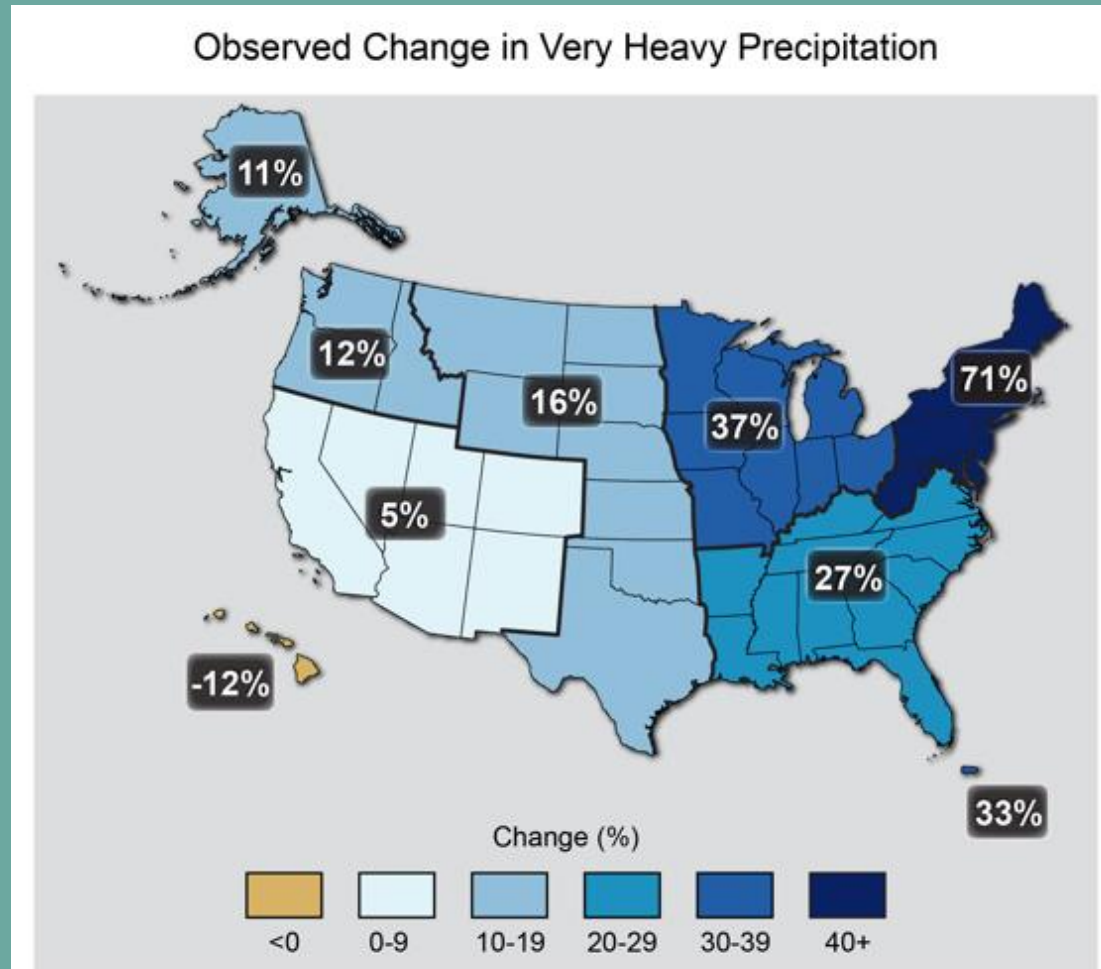
# Cartright St, Bridgeport 2018



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# Increase in Extreme Weather Events

*Increases in the amount of precipitation falling in very heavy events (1958 to 2012)*



*CIRCA website*



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# The New Normal?

Increased risk and liability  
as a result of chemical  
releases into the environment



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# What kind of damage can a business sustain from a storm event?

- Property damage
- Loss of inventory
- Environmental contamination & liability





# WOW Car Wash - Dean St, Bridgeport 2018



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# Bridgeport – Pequonock River



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# How Natural Hazards Impact Businesses

According to FEMA:

- 40% of businesses affected by a disaster never reopen, and
- another 25% that do reopen fail.
- Other studies found that more than 90% of businesses fail within 2 years of being struck by a disaster.



<b>Sample Business</b>	<b>Possible Chemicals on-site</b>
<b>Small manufacturers</b>	<b>Solvents, dyes, metals</b>
<b>Automotive Repair, Auto Supply, Salvage Yards, Marine Supply</b>	<b>Solvents, oils, lubricants, antifreeze, degreasers, tires, metals, antifreeze</b>
<b>Landscaping and Pest Control</b>	<b>Lawn chemicals, fertilizers, pesticides</b>
<b>Pharmacies</b>	<b>Pharmaceuticals, first aid items, cleaning supplies, lighter fluid, hair dyes, nail polish/remover</b>
<b>Hardware Stores, big box stores</b>	<b>Lawn &amp; garden chemicals, propane tanks, pesticides paints, stains, lubricants, glues and adhesives, CFC light bulbs, road salt and de-icing products, cleaning products, solvents, degreasers</b>

# Understanding the Issue

- What's needed? Outreach to businesses on:
  - understanding their risk
  - actions they can take to reduce the release of hazardous chemicals during a storm, flood or other natural hazard.
- CT's coastal communities especially at risk.



# Flood Map: Farmington Ave, Farmington

500-year  
floodplain

100-year floodplain

\*Floodway  
(River Channel)



*\*Floodway is part of the 100-year floodplain*

# PA 18-181 Section 7 (e)

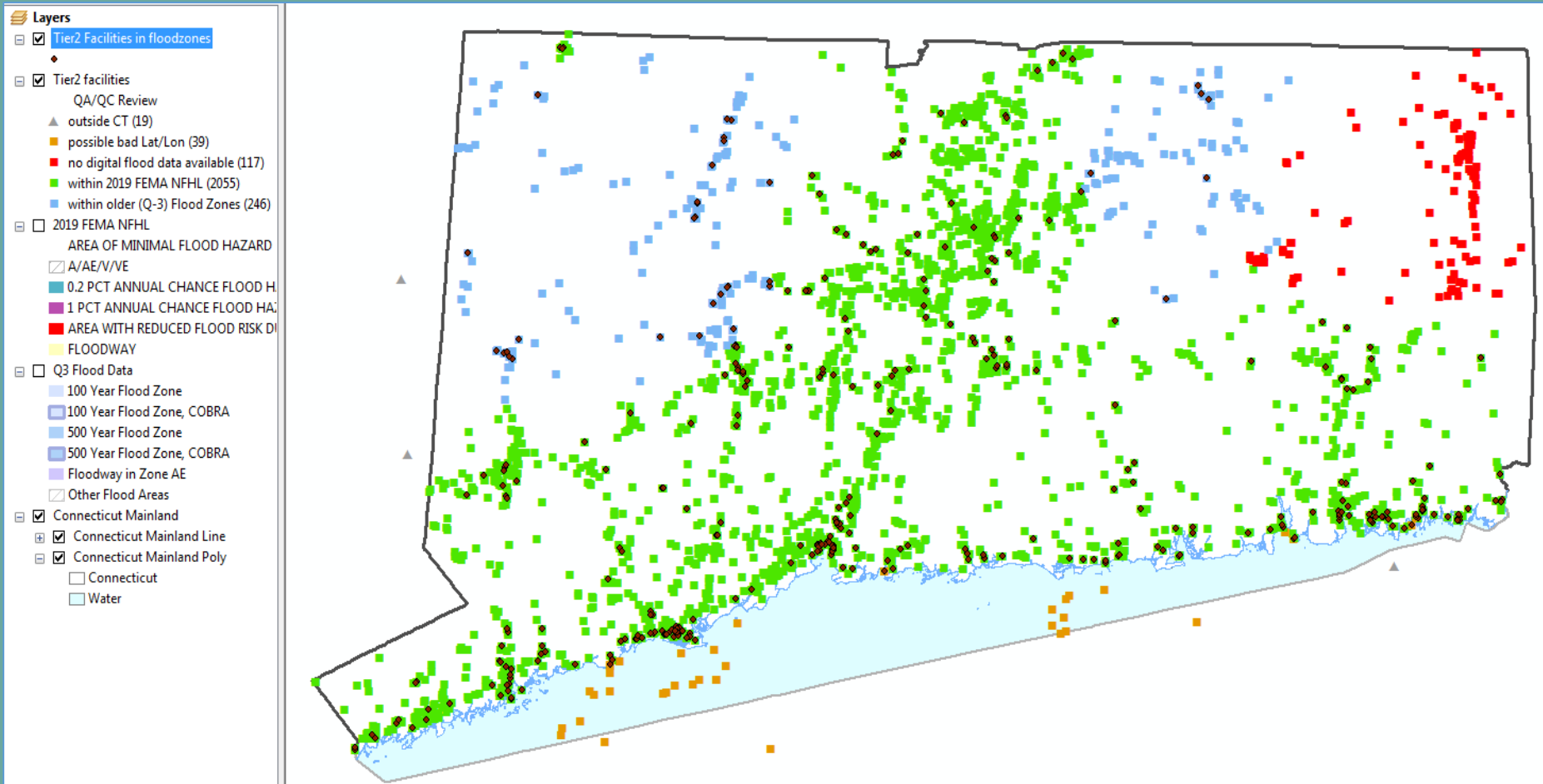
Tier 2 Facilities at high risk of (1) Flooding, (2) severe weather event, or (3) sea level rise:

- update their hazard mitigation plan and address such risks
- submit plan to local emergency planning committee
- DEEP identifying facilities and making them aware of new requirements



# 2017 Tier 2 facilities

2055 locations within the extent of 2019 National Flood Hazard Layer NFHL





# Hazardous Waste Generators

## Facility Registry Service

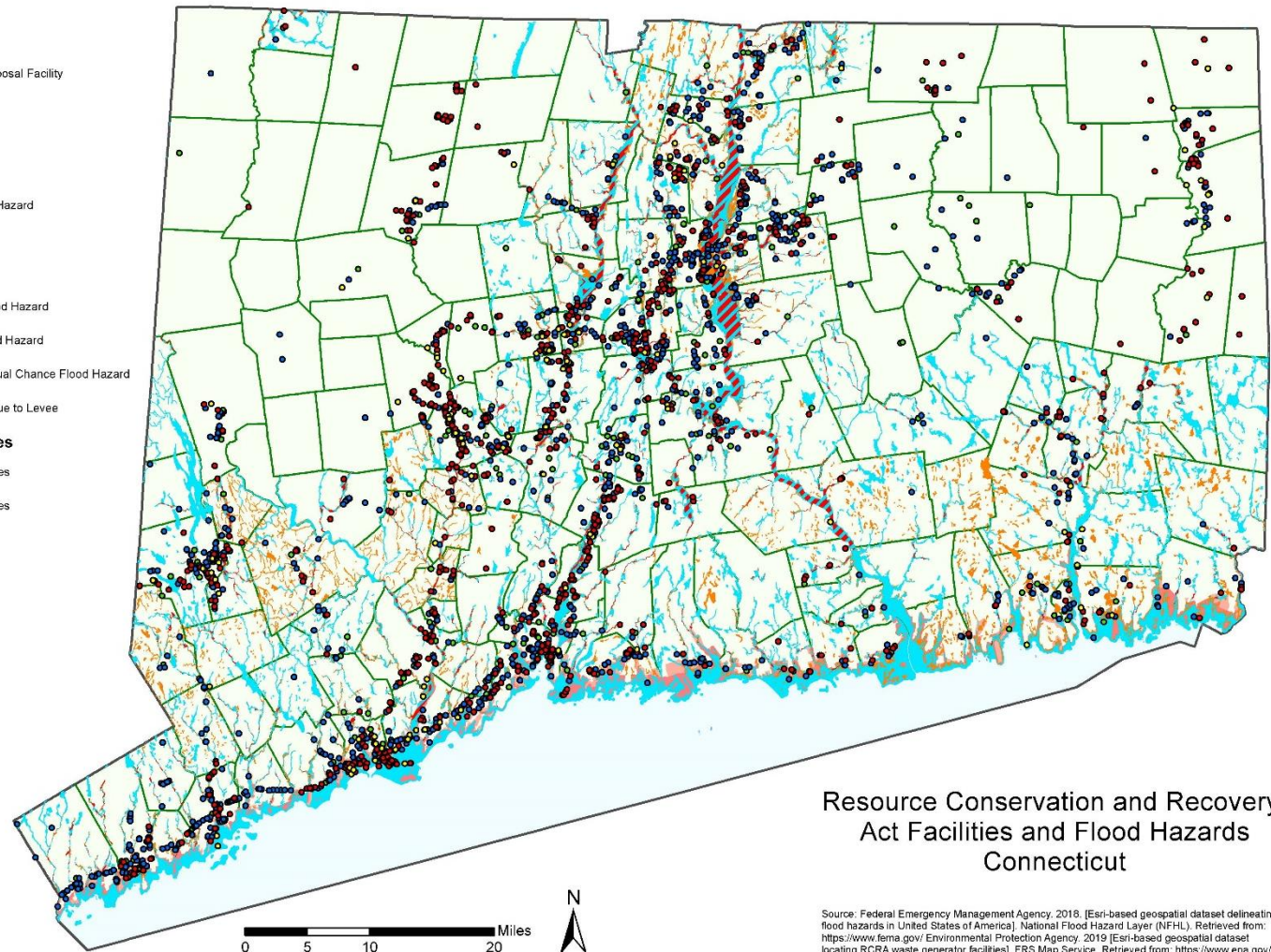
- Toxic Release Inventory
- Treatment, Storage, & Disposal Facility
- Large Quantity Generator
- Small Quantity Generator

## Flood Hazard Zones

- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Area with Reduced Risk Due to Levee

## Hurricane Evacuation Zones

- Category 1 and 2 Hurricanes
- Category 3 and 4 Hurricanes
- Severe WNW Hurricanes



Resource Conservation and Recovery  
Act Facilities and Flood Hazards  
Connecticut

Source: Federal Emergency Management Agency, 2018. [Esri-based geospatial dataset delineating flood hazards in United States of America]. National Flood Hazard Layer (NFHL). Retrieved from: <https://www.fema.gov/EnvironmentalProtectionAgency>, 2019 [Esri-based geospatial dataset locating RCRA waste generator facilities]. FRS Map Service. Retrieved from: <https://www.epa.gov/>



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# Steps towards Building Resilience

1. Include new actions **Natural Hazard Mitigation Plans** updates to assist businesses.
2. Include actions in facility plans as per PA18-181.
3. Develop materials & on-line training on toxic chemical reduction, increased safety and BMPs to increase resilience, reduce pollution.
4. DEEP, COGs, Resilient Bridgeport, CIRCA, LEPCs, others working together to create content and promote use by businesses throughout CT (EPCRA Tier 2 filers & businesses that do not meet reporting thresholds).



# Natural Hazard Mitigation Plan 2019 update

## NEW INITIATIVES

### Helping Small Businesses Mitigate Impacts of Natural Hazards



#### WHAT IS IT?

In an effort to assist small business with reduction of property damage or loss due to natural hazards, CT DEEP has proposed strategies for towns to implement educational programs with recommendations for best management practices (BMPs) to prevent pollution from chemicals from getting out into the environment.

According to FEMA, 40% of businesses affected by disaster never reopen, and 25% that do reopen fail; other studies show that 90% of businesses fail within two years of being struck by a disaster. Damage during storm events result in property damage, loss of inventory, and environmental contamination and liabilities resulting from chemical releases into the environment.

The sample mitigation objectives for municipalities is to increase awareness by small businesses of any chemicals and toxic products they use, store and/or sell, and to use BMPs to improve safety. On a regional scale, the objectives are to improve chemical safety practices to prevent disruption of economic activity and protect the environment and public health.

Strategies for educational programs include providing information on municipal websites, social media, brochures and posters, or through workshops.



*Ct.deep.gov*

#### REGIONAL SIGNIFICANCE AND LINK TO HAZARD MITIGATION

The benefits of reducing damage to small businesses during a disaster are a reduction in property damage and losses, avoiding expensive cleanups, reducing liability and risk to public health, and a more rapid recovery and continued operations that result in less impacts to the municipality's economic base.

**The municipalities of the Capitol Region can benefit from mitigation actions related to mitigating flood impacts to small businesses.** DEEP has recommended that hazard mitigation plan strategic actions list the municipality as the lead agency, with assistance from CT DEEP, where DEEP would develop information for dissemination. Suggested action priority is on a medium scale, with a completion time frame of one year.

#### FOR MORE INFORMATION

Connie Mendolia  
Department of Energy & Environmental  
Protection



# Natural Hazard Mitigation Plan 2019 update

## Capitol Region Natural Hazards Mitigation Plan Update

A plan for the improving the resiliency of the Region's 38 cities and towns



### Capitol Region Council of Governments

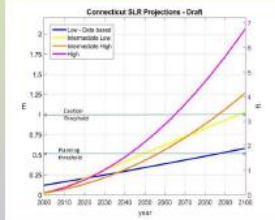
The Capitol Region Council of Governments (CRCOG) is a voluntary Council of Governments formed to initiate and implement regional programs of benefit to the towns and the region. It is guided by the chief elected officials of our 38 Metro Hartford municipalities. The mayors, first selectmen, and town council chairmen who make up our governing Policy Board recognize that the future of our individual members is tied to the future of our region. Our members have collaborated for more than 50 years on a wide range of projects to benefit our towns individually and the region as a whole. CRCOG's membership includes municipalities as diverse in size and character as the City of Hartford (population 124,320) and the Town of Andover (population 3,211).

Every five years, CRCOG prepares a Multi-Jurisdictional Hazard Mitigation Plan for its member municipalities. The plan acts as a strategy for addressing community and regional resilience to natural hazard events and includes prioritized recommendations for each town. The most recent hazard mitigation plans were developed in 2014 for Hartford and twenty-nine of the surrounding towns and in 2016 for eight additional municipalities. A new Hazard Mitigation Plan is currently in development which will address all thirty-eight communities in the Capitol Region.

Andover / Berlin / Bloomfield / Bolton / Canton / Colchester / Danbury / East Granby / East Hartford / East Windsor / Ellington / Farmington / Glastonbury / Granby / Hartford / Meriden / Middletown / New Britain / New Canaan / New Britain / Plainville / Rocky Hill / Shelton / Simsbury / Southington / Wallingford / Waterbury / West Hartford / West Windsor / Westborough / Willimantic / Windsor / Windsor Locks

### Use climate forecast results and related data to improve analyses of vulnerabilities.

- Official SLR projections from CIRCA
- Riverine flood modeling products (underway at UConn)
- New drought forecasting being done by some water utilities



Contact CRCOG  
Website: [CRCOG.org](http://CRCOG.org)  
Email: [info@crco.org](mailto:info@crco.org)  
Phone: 860-522-2217

CRCOG staff contact information:  
Executive Director: Lyle White - [lwhite@crco.org](mailto:lwhite@crco.org)  
Coordinator for Plan Updates: Lynne Pile-Donato - [lpdonato@crco.org](mailto:lpdonato@crco.org)

### Use proven and novel efforts to bolster communities' mitigation strategies to address vulnerabilities and advance resiliency.

- Hazardous spills from businesses such as dry cleaners
- Municipal separate storm sewer systems (MS4)
- MDC Coordination regarding drainage and sewers
- Historic and cultural resources
- Repetitive flood loss properties
- Microgrids and fuel cells
- Bolster critical facilities
- Dam failure drills



Hartford Boat House



Parkville Microgrid



Drainage Project



South Windsor EOC

### Perform robust public outreach and engagement efforts to improve understanding of climate change impacts in the Capitol Region.

- SurveyMonkey survey (135 responses to date) with climate change questions
- Multiple public meetings throughout the Region
- Several regional workshops with the planning teams; two meetings included climate change segments
- Social media announcements
- Regional and municipal web postings
- Press release to media outlets



# Project Overview

- 2 year project, EPA P2 funding
- COGs /Municipalities Updating NHMPs add actions
- GIS mapping flood prone areas with businesses/chemicals
- Create materials / online for businesses
- Tie in with requirements of PA 18-181 Sec 7 (e)
- Promote use of training
- Collect data, measure results



# CT Learning from Others

## What Massachusetts Office of Technical Assistance has Done

### Chemical Safety and Climate Resilience

- <https://www.mass.gov/video/ota-chemical-safety-and-climate-change-resilience>



# Questions?

Name: Kim Trella, Connie Mendolia

Email: @ct.gov

Phone: 860-424-3297

Web: [ct.gov/deep/p2](http://ct.gov/deep/p2)

