

CHEMICAL SAFETY &



CLIMATE CHANGE RESILIENCY

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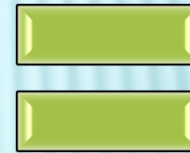


CHEMICAL SAFETY & CLIMATE CHANGE RESILIENCY

Toxics
Use
Reduction



Climate
Change
Resiliency
Planning



Reduced
Risk of
Industrial
Accidents





Rhonda Ragsdale

@profragsdale

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There is a thick smell of oil in the air downtown #Houston

11:25 AM - Aug 27, 2017



4



54



28



RFH

@rth02

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@DisasterPIO There is a widespread gas smell in Houston's East End. Any info?

12:52 PM - Aug 27, 2017



3



34



13



Raquel de Anda

@deAndaAnda

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Rancid chemical smell near Houston @ValeroEnergy refinery. What's going on? Why all the flaring? Folks Can't Breathe #HurricaneHarvery

2:20 PM - Aug 27, 2017



1



33



39



First responders file suit against Arkema over 'serious bodily injuries' in Houston chemical plant fire after Hurricane Harvey

- First responders filed a lawsuit in Harris County court alleging [Arkema](#) failed to take adequate safety steps to secure dangerous chemicals ahead of [Hurricane Harvey](#)
- The lawsuit filed by seven police, fire and emergency service workers seeks at least \$1 million

Published 11:22 PM ET Thu, 7 Sept 2017

Floods

Chemical Releases & Spills
Emergency Shutdowns

Extreme Heat

Chemical Temperature
Explosion Risks
Drought (Cooling / Fire
Suppression)

Climate Change
& Chemical
Releases

Extreme Cold

Power Outages
Frozen pipes
HVAC Failure

Storms

Power Outages
HVAC Failure
Infrastructure Failure



Dangerous
Chemical?

Human /
Environmental
Contact?



Potential for
Hazard?

EVALUATE RISKS



Chemical Properties

Toxic
Flammable
Combustible

Weather Risks

Flood
Hurricane
Freezing
Heat

Chemical Storage

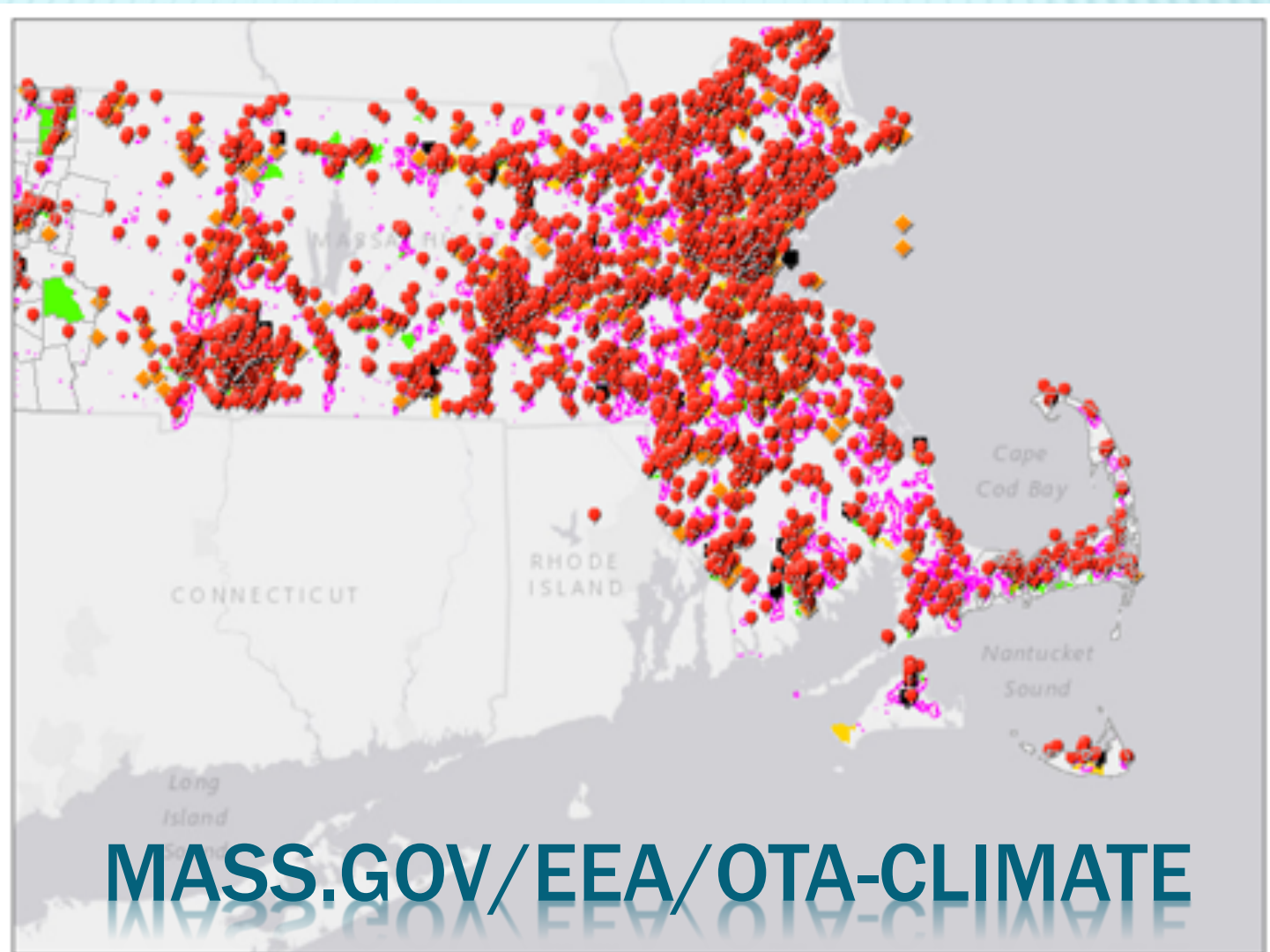
Secondary Containment
Compatibility

Toxics Use Reduction

Product Substitution
Reduce Inventory
Engineering

Are You Prepared
For The Worst
Case Scenario?

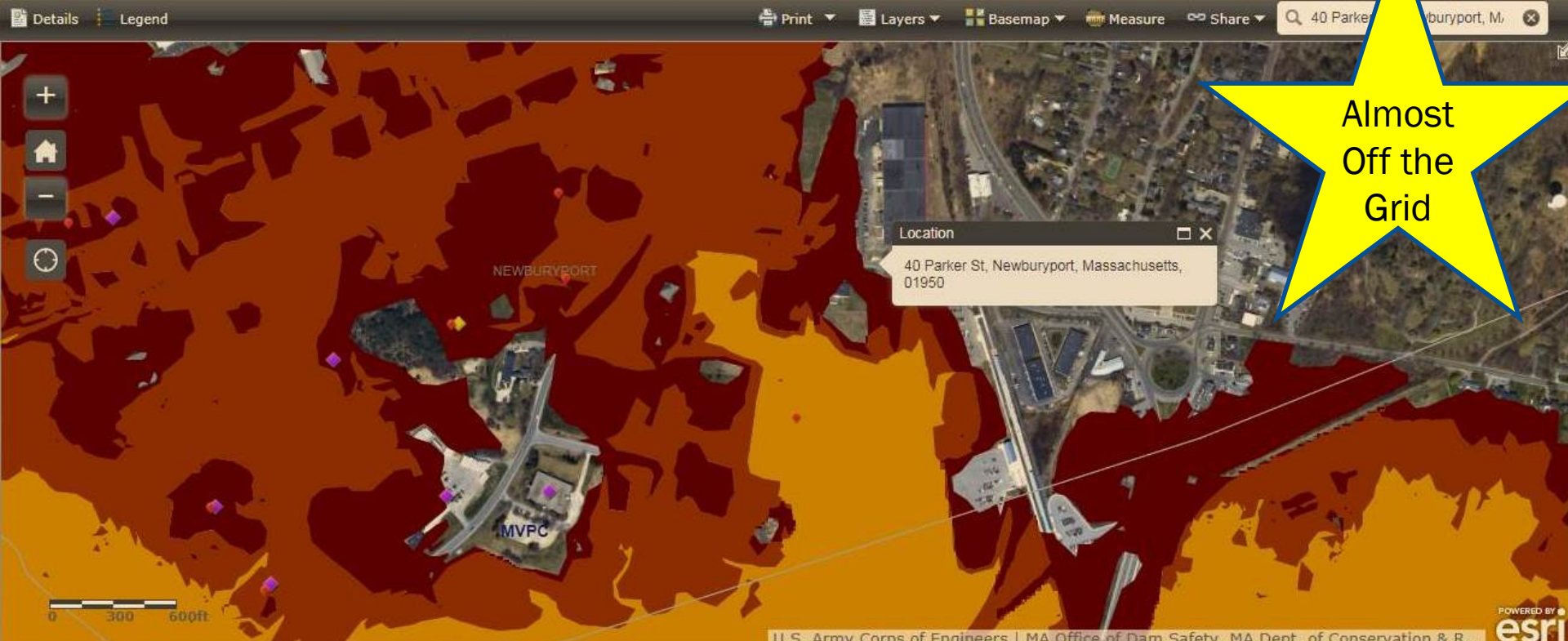
IDENTIFY YOUR RISKS



[MASS.GOV/EEA/OTA-CLIMATE](https://www.mass.gov/eea/ota-climate)

MARK RICHEY WOODWORKING – ENERGY EFFICIENCY AND TOXICS USE / WASTE REDUCTION

Massachusetts Toxics Users and Climate Vulnerability Factors



Reductions:



120 gallons lacquer thinner / acetone / other chemicals per year

1,200 gallons denatured alcohol per year

12 tons VOCs per year

Savings of \$16,435

Training Results

Total People Trained	428
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Total Municipal Training Attendees	192
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Total Business Training Attendees	236
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Total Companies Visited by OTA in Relation to Grant	54
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WPI FINDINGS AND RECOMMENDATIONS

- × Desire for hands on / mock incident exercises
- × Found chemical and climate mapping useful
- × Desire for more online tools
- × Trainings used as a networking opportunity between companies / first responders
- × Trainings available as webinars
- × Focus on severe regional weather (winter weatherization / hurricanes / etc.)
- × Desire for more specificity in trainings (type of chemical / facility / etc.)

QUOTES FROM PARTICIPANTS

- ✘ It is a 'no brainer' to use OTA services.
- ✘ OTA is a great resource to have.
- ✘ For us (OTA Services) were very beneficial. We've made some terrific contacts, just in terms of knowing people who can get some information.
- ✘ Thanks to our OTA connections, we were able to call in state OSHA... And I figure we got probably \$8,000 to \$12,000 worth of free industrial hygiene consulting.

Resilient Nashua Initiative

NASHUA, NH

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Courtney Brown

Dec 4, 2018

What and where are the community resources (i.e. Greely park, community fire-station) that make Nashua a great place to live?

Mines Falls makes Nashua an amazing place to live. It is great having all of the benefits of living in a city but also having such a large park and trails to stay active and enjoy the outdoors.

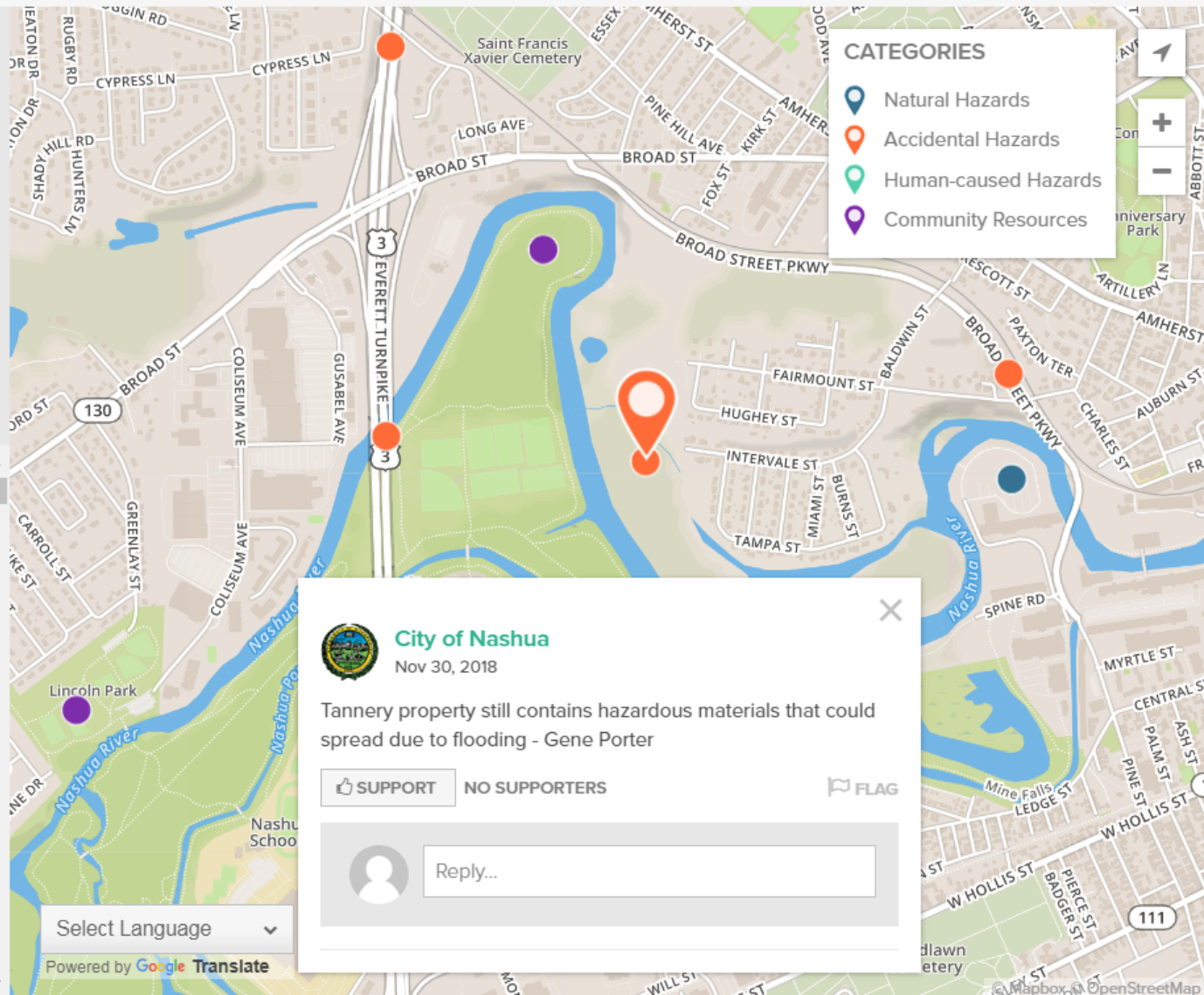
👍 SUPPORT

6 SUPPORTERS

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CATEGORIES

- Natural Hazards
- Accidental Hazards
- Human-caused Hazards
- Community Resources



City of Nashua

Nov 30, 2018

Tannery property still contains hazardous materials that could spread due to flooding - Gene Porter

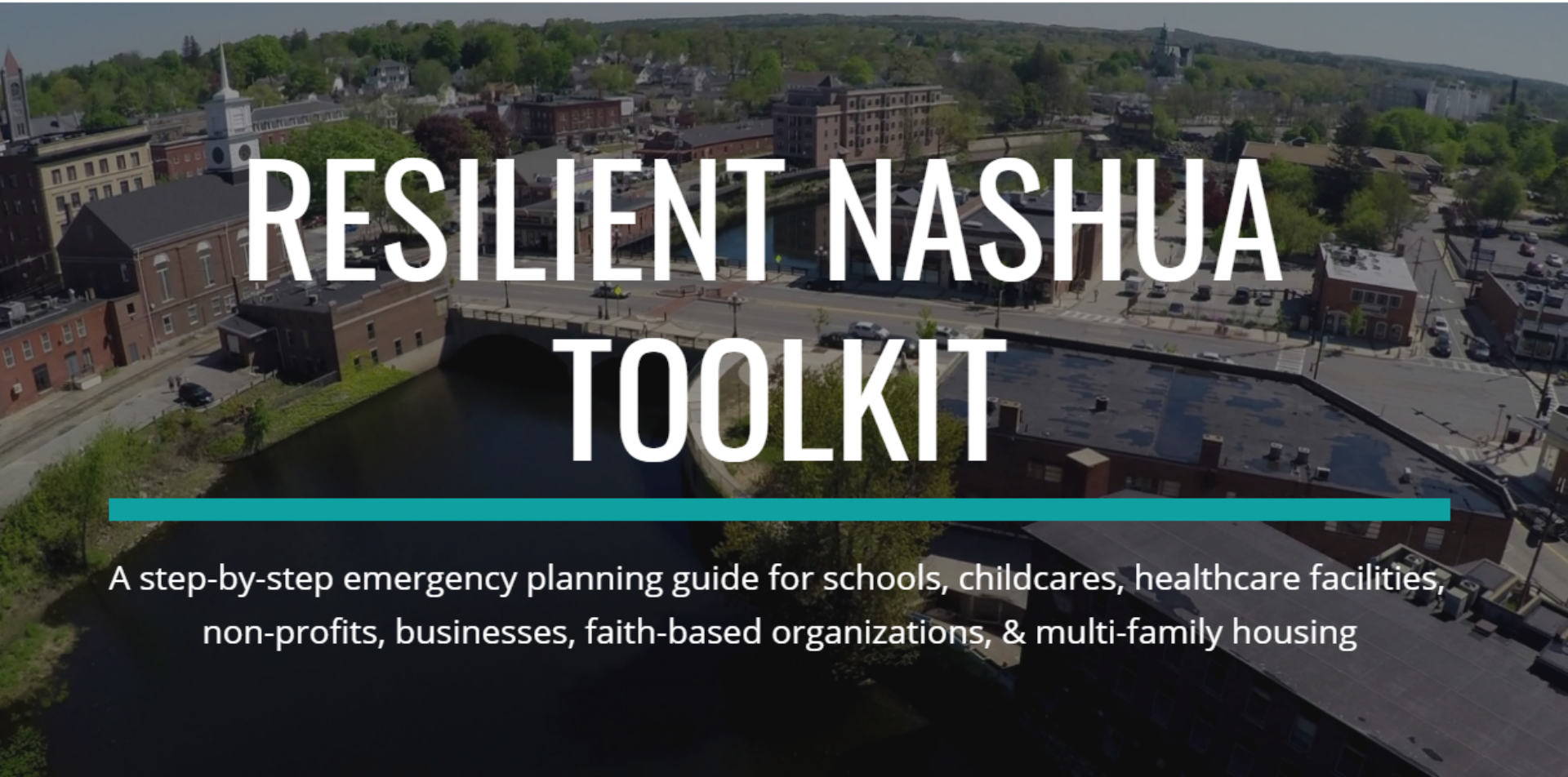
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NO SUPPORTERS

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Reply...

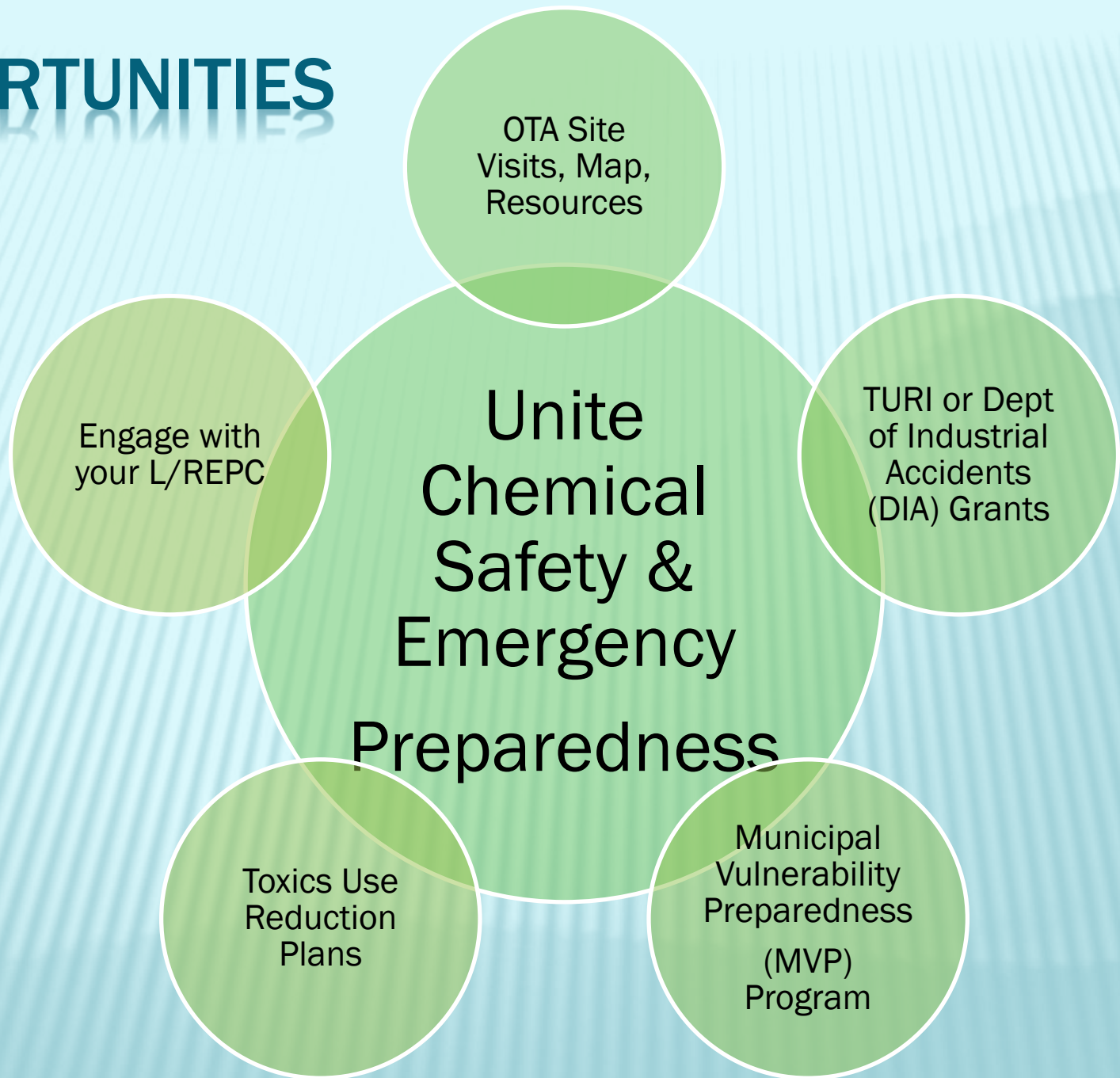


RESILIENT NASHUA TOOLKIT

A step-by-step emergency planning guide for schools, childcares, healthcare facilities, non-profits, businesses, faith-based organizations, & multi-family housing

WELCOME TO THE RESILIENT NASHUA TOOLKIT!

OPPORTUNITIES



THANK YOU!



FOR MORE INFORMATION:

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