

OTA RESOURCES &



CLIMATE CHANGE PREPAREDNESS

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@Mass_OTA



MASSACHUSETTS OFFICE OF TECHNICAL ASSISTANCE (OTA)

- ✖ Toxics Use Reduction Act (TURA) of 1989
- ✖ Three partnering agencies:
 - + MassDEP (Regulatory)
 - + TURI (Research & Grants)
 - + OTA (Technical Assistance)

OTA'S ROLE

- × Non-Regulatory Agency
- × Work with MA Toxics Users
- × Free & Confidential Technical Assistance
- × 50% of companies we have visited invite us back

**We will not tell any enforcement agencies
what we see at a facility unless it's an
emergency.**

We never have!

WHO WE HELP

- ✖ On-site visits and phone consultations for all MA companies where:
 - + toxics are used, stored, or manufactured
 - + energy efficiency opportunities exist
 - + water conservation opportunities exist
- ✖ Local government agencies who refer businesses to us

OUR STAFF

- ✖ Chemists, engineers, public health professionals
- ✖ Hands on manufacturing experience
- ✖ Understanding of:
 - +regulations
 - +bottom line
 - +how to implement changes

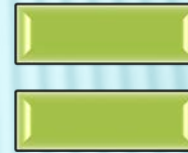
CHEMICAL SAFETY & CLIMATE CHANGE RESILIENCY

The diagram illustrates a logical progression where two factors are combined to achieve a specific outcome. It features three green circular nodes connected by a plus sign and an equals sign. The first node on the left is labeled 'Toxics Use Reduction'. A large green plus sign follows. The second node in the middle is labeled 'Climate Change Resiliency Planning'. An equals sign, represented by two horizontal bars, follows. The final node on the right is labeled 'Reduced Risk of Industrial Accidents'.

Toxics
Use
Reduction



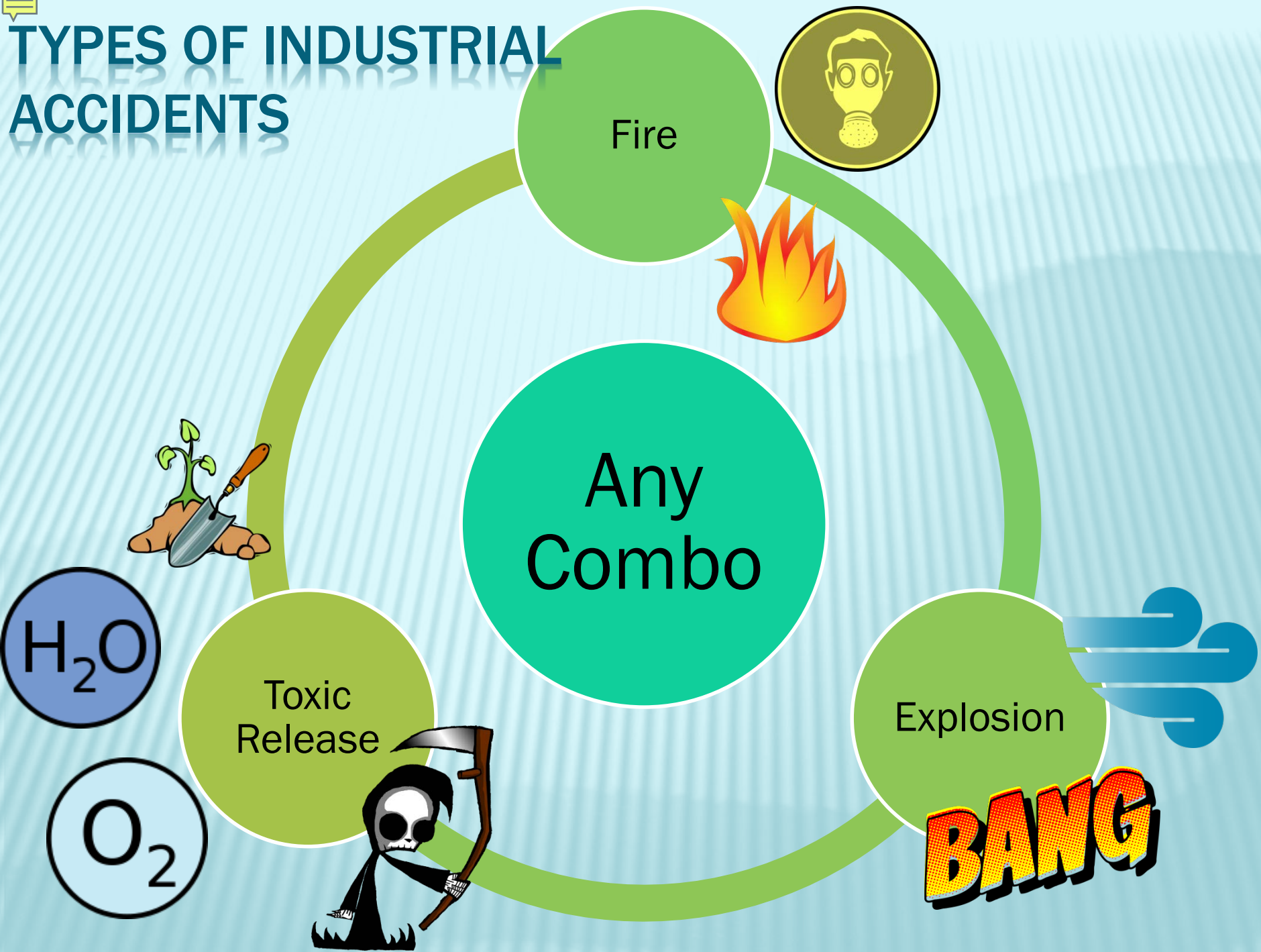
Climate
Change
Resiliency
Planning



Reduced
Risk of
Industrial
Accidents



TYPES OF INDUSTRIAL ACCIDENTS





Dangerous
Chemical?

Human /
Environmental
Contact?



Potential for
Hazard?

Floods

Chemical Releases & Spills
Emergency Shutdowns

Extreme Heat

Chemical Temperature
Explosion Risks

Climate Change
& Chemical
Releases

Extreme Cold

Power Outages
Frozen pipes
HVAC Failure

Storms

Power Outages
HVAC Failure
Infrastructure Failure

MASSACHUSETTS INDUSTRIAL ACCIDENTS



HURRICANE HARVEY HEADLINES

To Your Health

The health dangers from Hurricane Harvey's floods

By Ben Guarino August 29



The water kept rising on Houston freeways on Sunday as the city was besieged by Hurricane Harvey and the resulting floods. (Thomas B. Shea/AFP/Getty Images)

NEW REPUBLIC

MAGA



Brendan Smolowski/Getty

Harvey's Hidden Side Effect

74 incidents of excess air pollution have been reported since the hurricane hit, totaling more than one million pounds of emissions. More is on the way.

HURRICANE HARVEY HEADLINES

Mother Jones

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POLITICS ENVIRONMENT FOOD MEDIA CRIME & JUSTICE PHOTOS INVESTIGATIONS MAGAZINE

There's an "Unbearable" Chemical Smell Hovering Over Parts of Houston, and Experts Are Worried.

The communities "can't leave or evacuate so they are literally getting gassed."

EMILY ATKIN AUG. 28, 2017 2:30 PM

Huge Exxon oil refinery damaged by heavy rain from Harvey



By Matt Egan

NEW YORK (CNMoney) -- An ExxonMobil oil refinery near Houston was damaged by the remnants of Hurricane Harvey, and the company says chemicals could be released into the air.

Exxon said a roof at the facility in Baytown "partially sank" because of heavy rain.

HURRICANE HARVEY HEADLINES



By **Lorraine Chow**
Aug. 29, 2017 09:01AM EST

Climate →



Hurricane Harvey wrecks Valero gas station. Texas Military Department/Flickr

'Unseen Dangers' of Harvey: Petrochemical Plants Release 1 Million Pounds of Harmful Air Pollution

Wonkblog

Texas chemical plant in critical condition, raising possibility of explosion

By **Steven Mufson** August 29 at 8:07 PM



People walk to a Harris County Sheriff air boat while escaping a flooded neighborhood. (Brendan Smialowski/AFP/Getty Images)

Chemical Fire Reported At Flooded Arkema Plant In Crosby, Texas

August 31, 2017 · 6:49 AM ET

BILL CHAPPELL



The Arkema plant in Crosby, Texas, is northeast of Houston. The company says it received reports of two explosions at the plant in the early hours of Thursday.

Google Maps



Rhonda Ragsdale

@profragsdale

Follow

There is a thick smell of oil in the air downtown [#Houston](#)

11:25 AM - Aug 27, 2017



4



54



28



RFH

@rth02

Follow

[@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

Follow

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



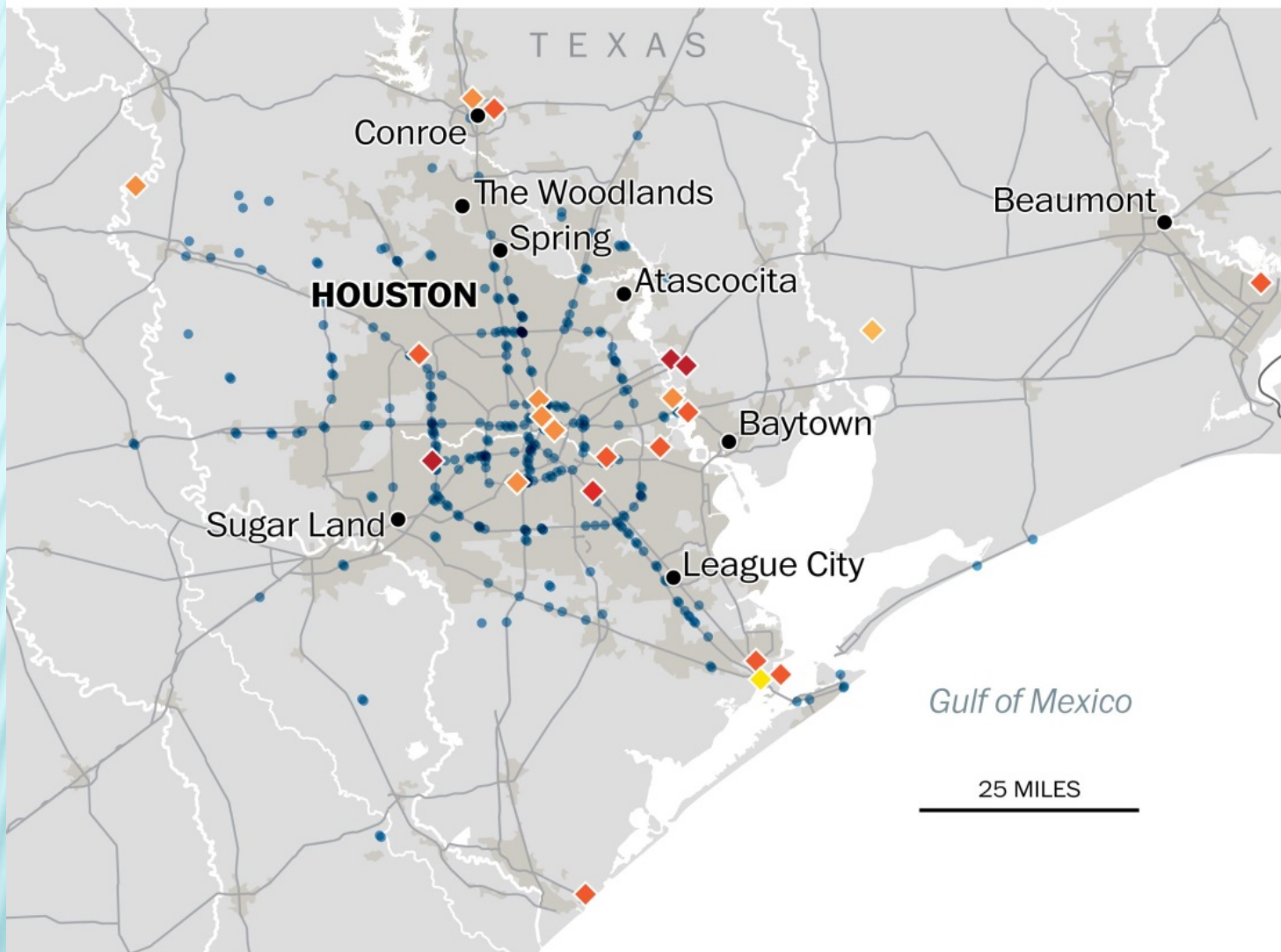
39



Superfund sites by hazard ranking system

Less hazardous  More hazardous

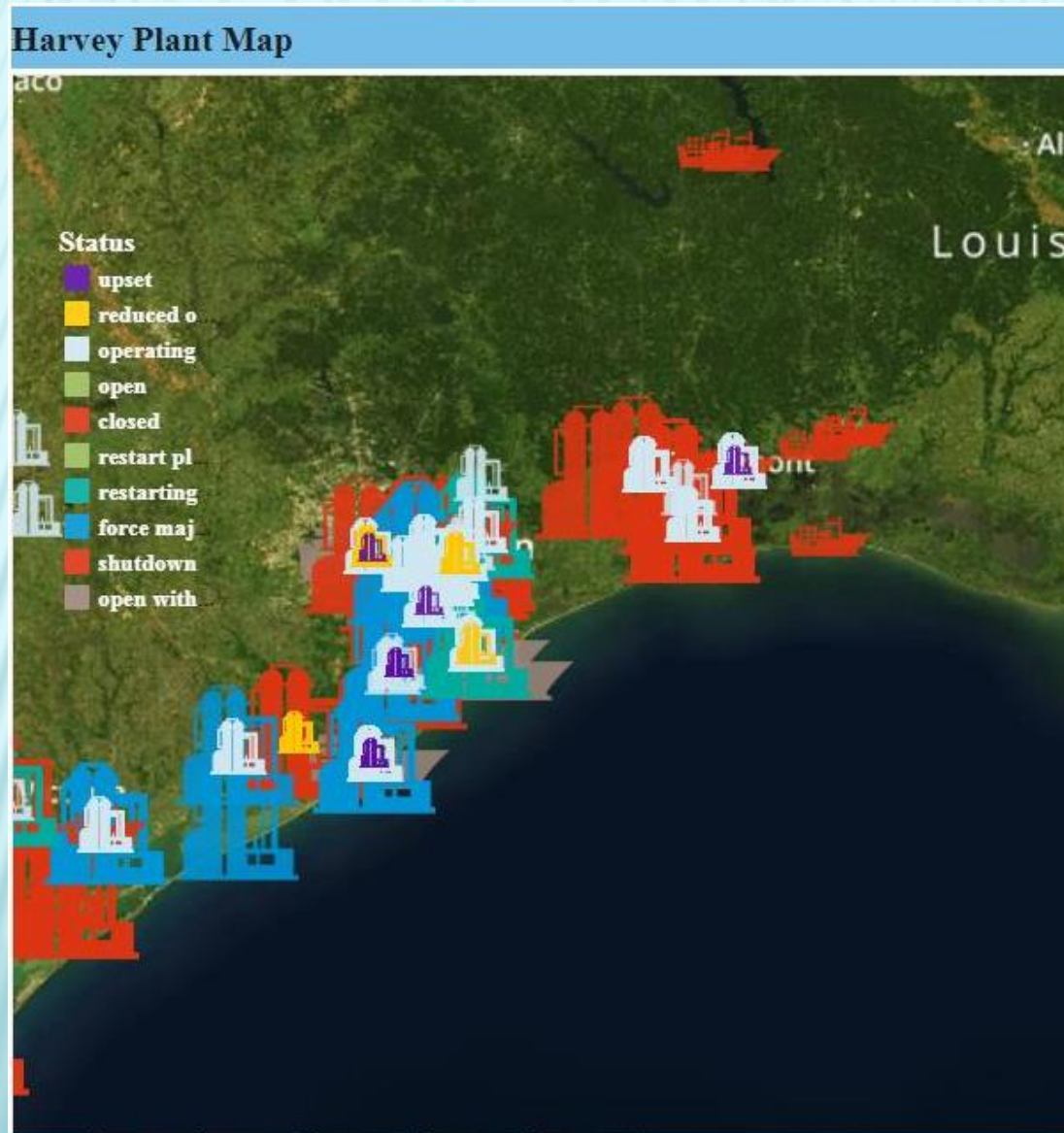
● Road closure or incident because of high water as of August 28



Sources: EPA Superfund Enterprise Management System Public User Database via National Institutes of Health. Data as of August 24. Traffic data via Houston Transtar.

DENISE LU AND AARON WILLIAMS/THE WASHINGTON POST

ICIS PLANT STATUS, 9/2/17



IT AIN'T OVER TIL IT'S OVER

CSB Urges Oil and Chemical Facilities to Take Special Safety Precautions during Startups Following Hurricane Harvey

Washington, DC, August 27, 2017 - The U.S. Chemical Safety and Hazard Investigation Board (CSB) today issued a [Safety Alert](#) urging oil and chemical facilities to take special precautions when restarting in the wake of shutdowns due to Hurricane Harvey.



“Restarting a refinery poses a significant safety risk, said Chairperson Vanessa Allen Sutherland. “When operators follow established startup procedures and checklists, it reduces the risk to a catastrophic accident that could cost lives and incur substantial product disruptions.”

Restarting a complex petrochemical process requires a higher level of attention and care than normal processing, because numerous activities are occurring simultaneously and many automatic systems are run under manual control. Because a significant number of facilities were shut down during Hurricane Harvey, there will be a significant number of facilities restarting, which will increase the risk to safety.

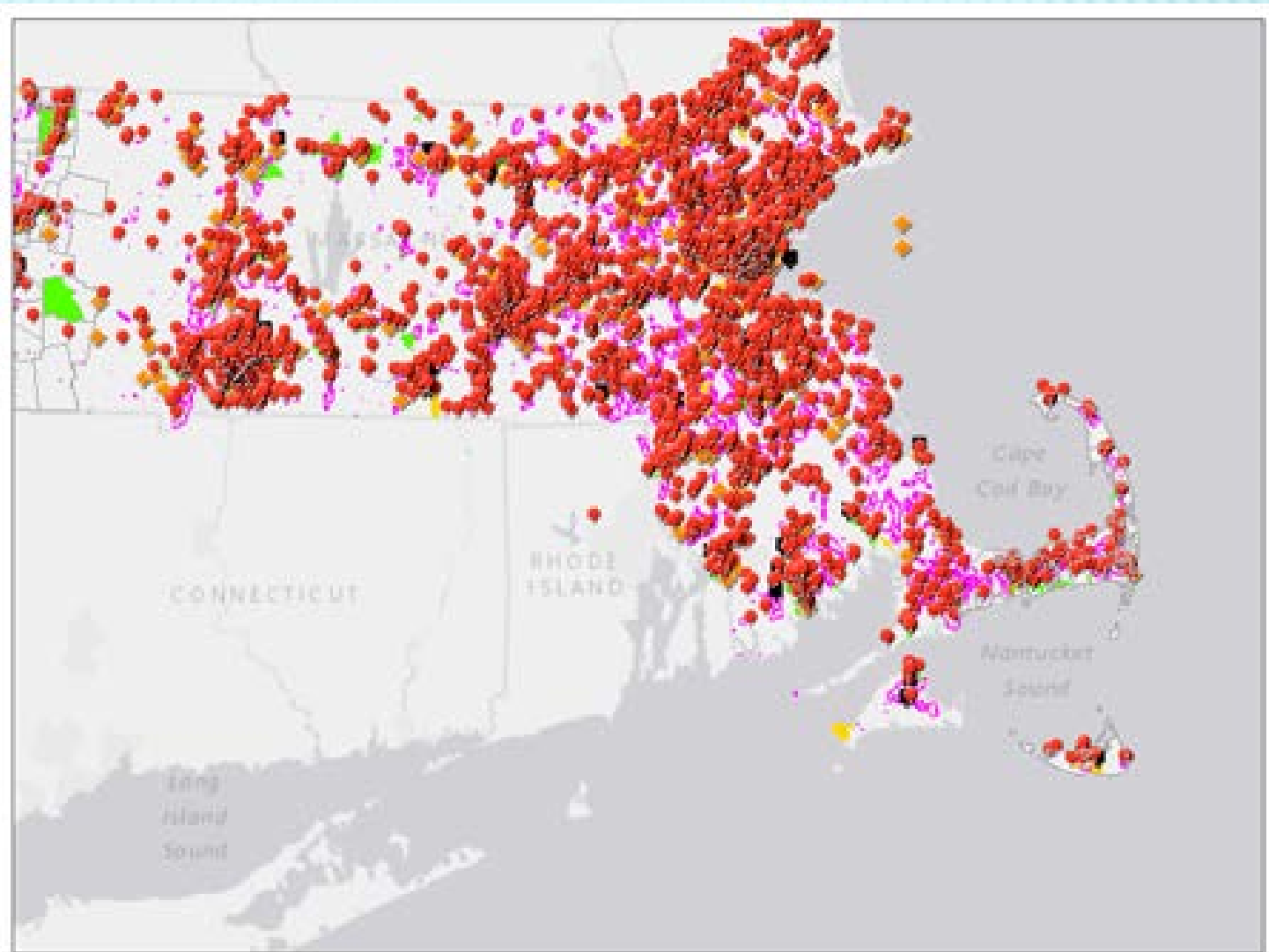


OTA & EPA

Maps & Resources



MASS.GOV/EEA/OTA-CLIMATE



ECHO.EPA.GOV



Enforcement and
Compliance History Online

[ECHO Gov Login](#) [Contact Us](#)



Search Community

Search Community

Use EPA's Enforcement and Compliance History Online website to search for facilities in your community to assess their compliance with environmental regulations. You can also investigate pollution sources, examine and create enforcement-related maps, or explore your state's performance. [Learn more about ECHO](#)

Quick Search

Search

 [Watch Short Video Tutorial](#)

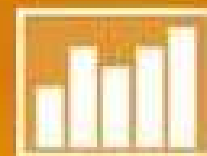
[More Search Options](#)



Create Maps



Explore Facilities



Analyze Trends

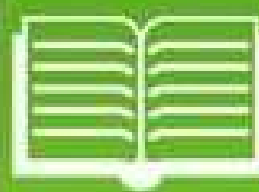
Latest News

ECHO News

- ▶ [New ECHO Biosolids Facility Search Released](#)
- ▶ [What's New in ECHO](#)
- ▶ [Join the ECHO Listserve](#)
- ▶ [ECHO Use Grows to Record Levels](#)



Help



Resources



Advanced Tools

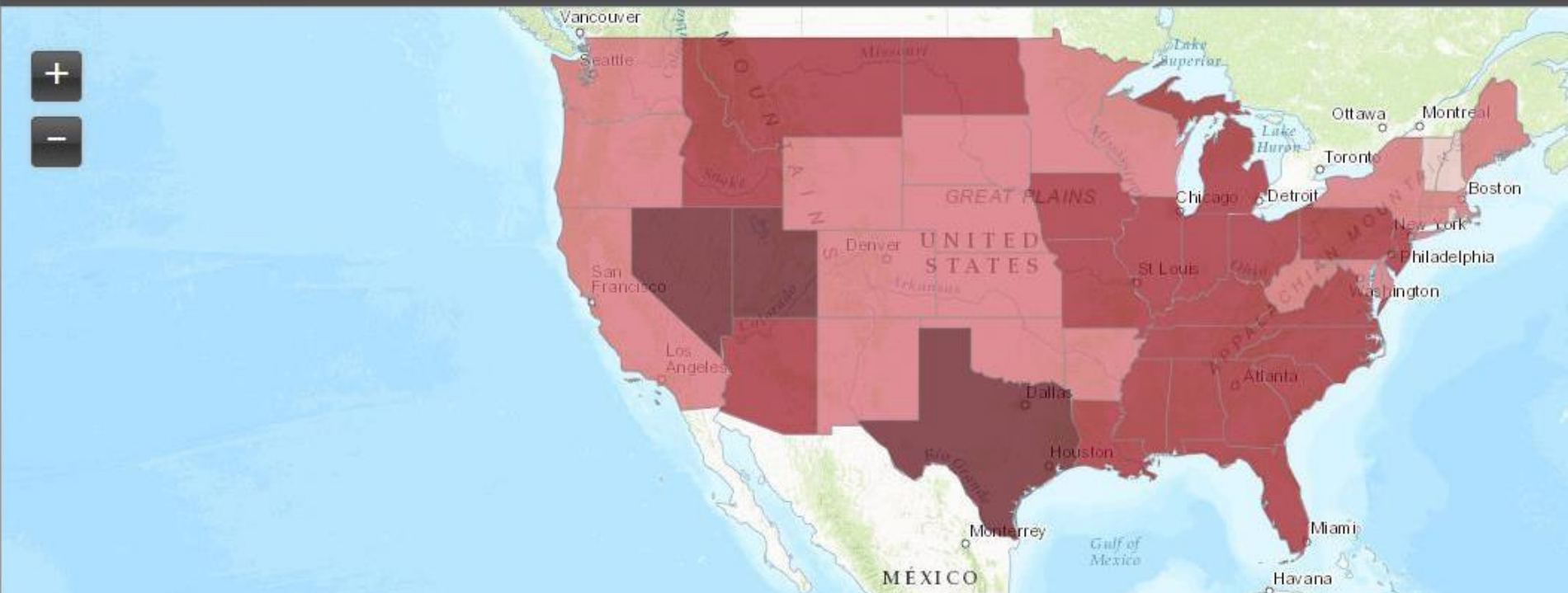
TOXICS RELEASE INVENTORY WHERE YOU LIVE

2015 TRI National Analysis: Where You Live

Show map by: ☒ States ☐ Metropolitan Areas ☐ Watersheds ☐ Tribal

Search: State: or Zip Code: City: County:

Legend Data to Display:



<https://www.epa.gov/trinationalanalysis/where-you-live-2015-tri-national-analysis>

COMMUNITY MAPPING TOOLS

OTA Ma Toxics Users & Climate Vulnerability

- ✖ [Mass.gov/eea/ota-climate](https://mass.gov/eea/ota-climate)

Toxics Release Inventory Where You Live

- ✖ <https://www.epa.gov/trinationalanalysis/where-you-live-2015-tri-national-analysis>

Toxics Release Inventory Explorer

- ✖ https://iaspub.epa.gov/triexplorer/tri_release.chemical

Enforcement & Compliance History Online

- ✖ <https://echo.epa.gov/>

OTA SERVICES FOR YOU

Providing GIS data on toxics users and vulnerable areas

Providing expertise and training on state / federal environmental regulations

Providing expertise and training on toxic chemicals

Ensuring toxics users in your community are in compliance with regulations

Accepting your referrals to toxics users

Engaging businesses in toxics use reduction, safer chemical storage and best practices

IMPORTANT TAKE AWAYS

- ✖ Recruit businesses to upcoming trainings:

www.mass.gov/eea/ota-climate

- ✖ Refer businesses to OTA (*free & confidential!*)

www.mass.gov/eea/ota

THANK YOU!



FOR MORE INFORMATION:

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