

SOURCE REDUCTION: REMOVING THE HANDLE FROM THE PFAS PUMP

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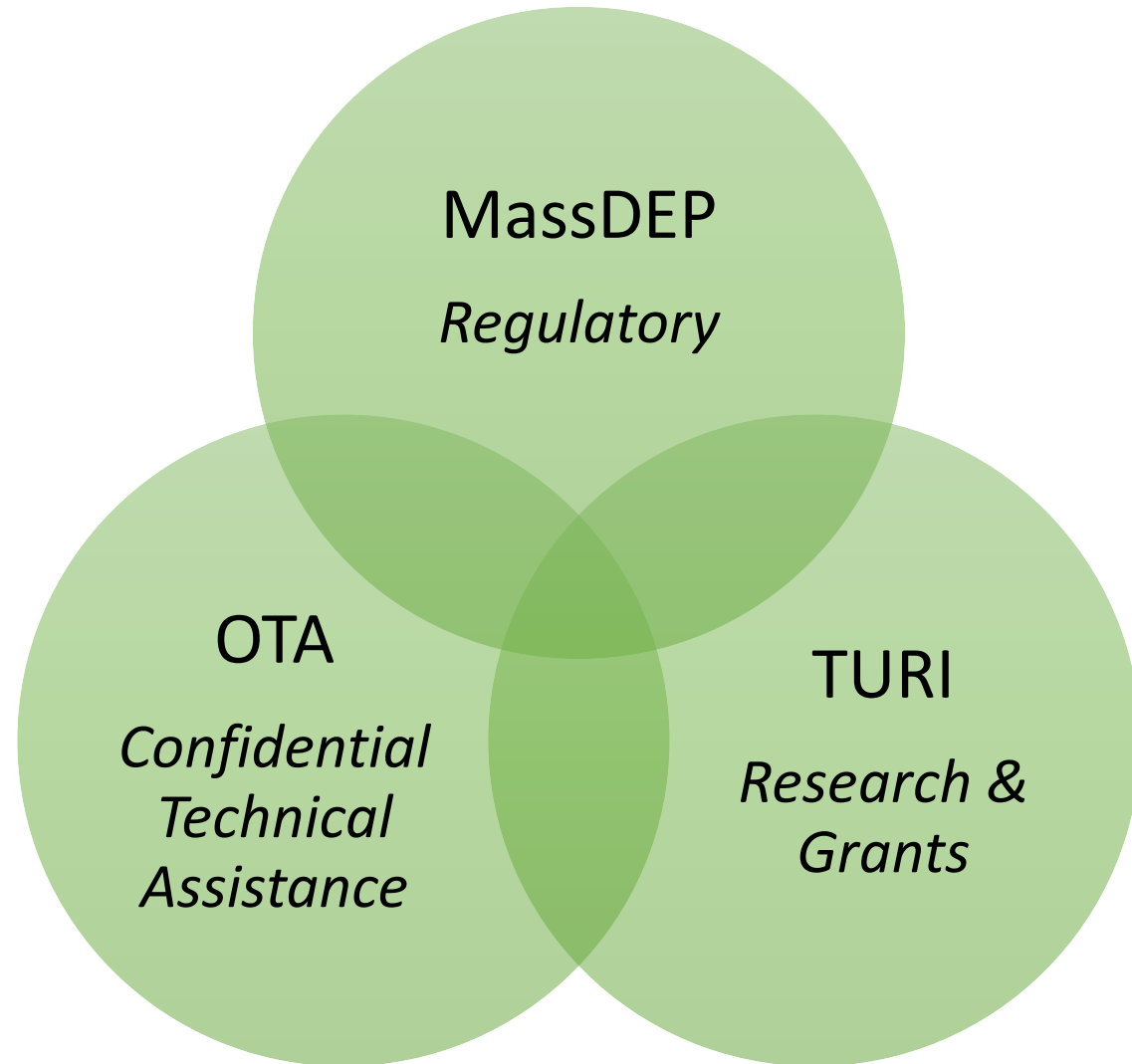
June 24, 2021



Toxics Use Reduction Act (TURA) of 1989

Three implementing agencies





Regulates manufacturers in designated Standard Industrial Classification (SIC) Codes



TURA Program activities for OTA, TURI, DEP.
244 views
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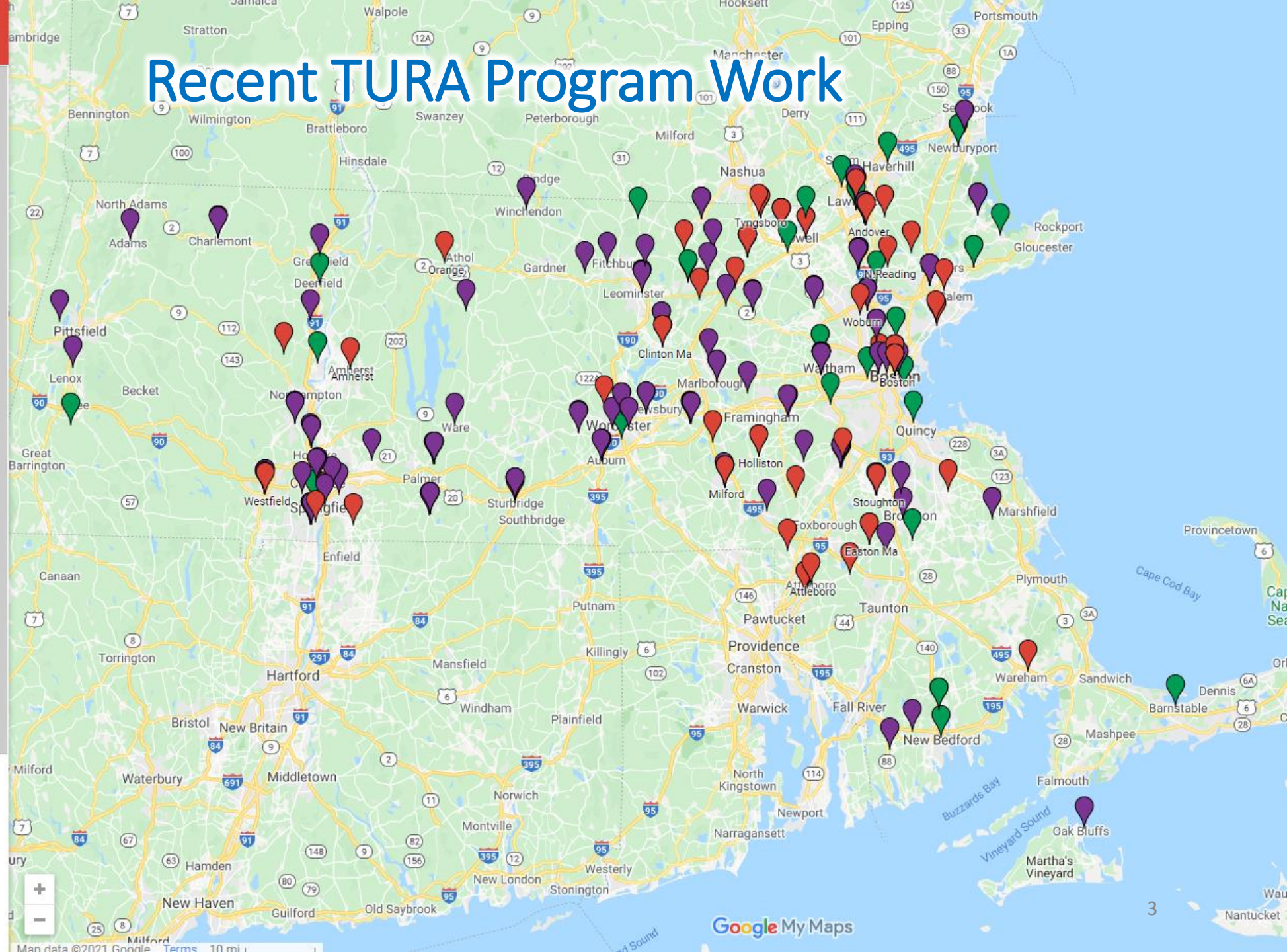
- ☒ **TURI**
-  OFS Fitel, LLC
 -  Camger Coating Systems
 -  Waters Corporation
 -  Northrop Grumman Corporation
 - ... 46 more

- ☒ **OTA FY 19**
-  Untitled
 -  Monson
 -  Westfield
 -  Chicopee
 - ... 54 more

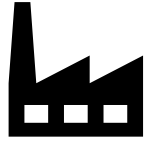
- ☒ **DEP**
-  Greylock Group LLC
 -  Massachusetts Green High Performanc...
 -  Holyoke High School
 -  Suddekor LLC
 - ... 95 more

- ☒ **OTA FY2020**

Recent TURA Program Work

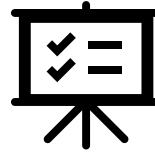


TURA Program



Who reports?

- Manufacturers who:
 - Have >10 employees
 - Conduct business under certain Standard Industrial Classification (SIC) Codes
 - Manufacture or process $\geq 25,000$ lbs (or otherwise use >10,000lbs) of listed substances
- This includes a little over 400 manufacturers in Massachusetts



What TURA Requires

- Report to the state
- Pay a fee
- Conduct Toxics Use Reduction Planning every two years

TURA does not prohibit companies from using listed chemicals.

TURA Governing Structure



Science Advisory Board

Managed by TURI
Appointed by Governor
Recommends chemicals



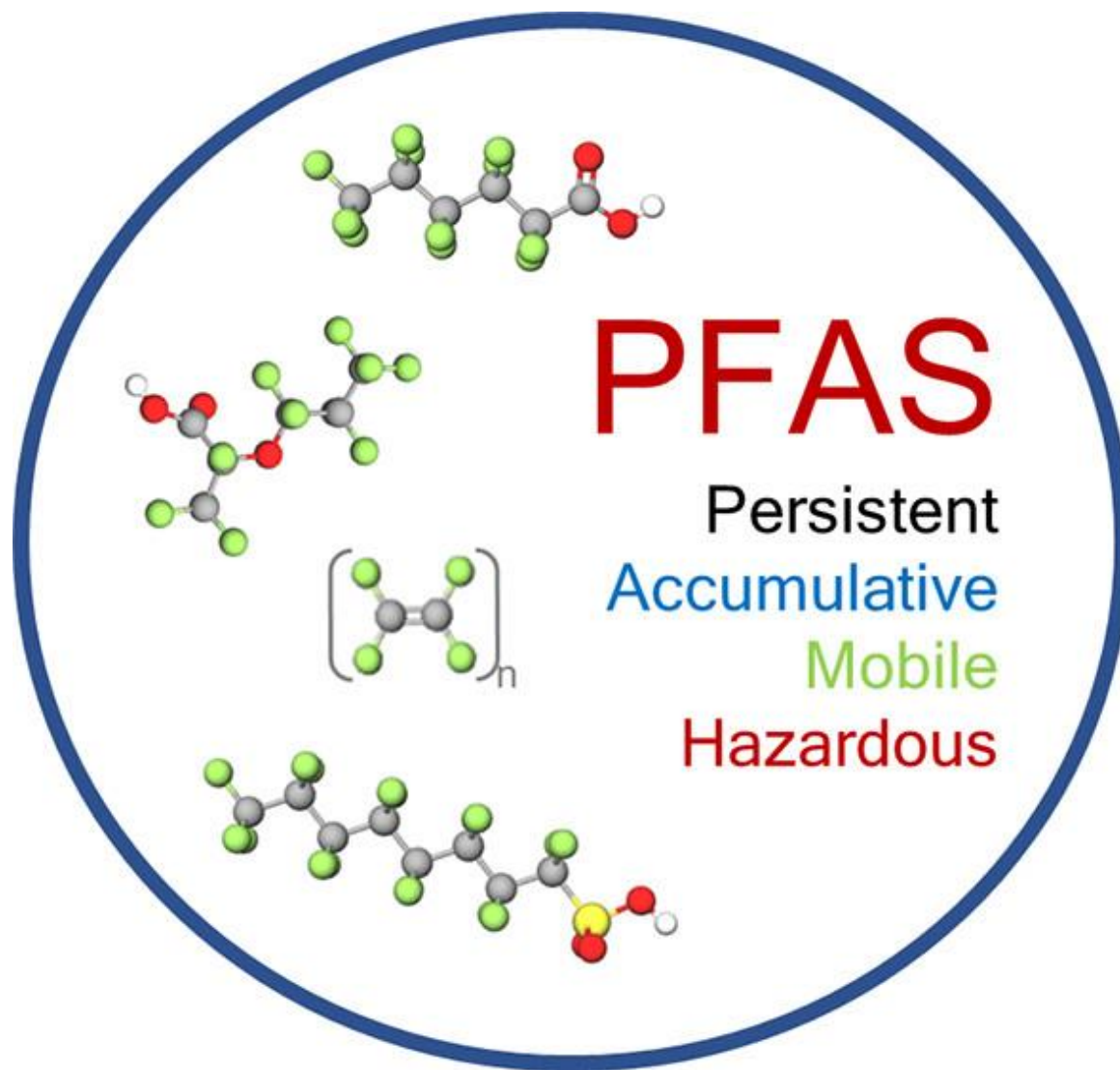
Advisory Committee

Managed by OTA
Appointed by Secretary
Multi-sector policy input



Administrative Council

Chaired by Secretary or
designee
TURA governing body



PFAS Substances & TURA Governing Bodies



TURA Administrative Council

- 9/10/20 unanimous vote to incorporate 172 Toxics Release Inventory (TRI) List under EPCRA
 - EPCRA listed chemicals get incorporated into TURA after a formal vote
 - Virtual public hearing on 11/20/20
- Future vote on PFAS Not Otherwise Listed (NOL) based upon SAB
- A listing is NOT a ban



TURA Science Advisory Board

- Governor-appointed scientists
- Has recommended that PFAS Not Otherwise Listed (NOL) be added to the TURA Toxic or Hazardous Substances List

Detection, Measurement, Remediation



Drinking water

In 2020, MassDEP adopted an MCL of 20 parts per trillion (ppt) for six PFAS combined.

MassDEP is also offering free PFAS sampling to all public water supplies (PWS), and partnering with UMass Amherst to conduct sampling of private wells around the state.



Waste sites

Some PFAS are considered to be "hazardous material" subject to the notification, assessment and cleanup requirements of the Massachusetts Waste Site Cleanup Program.

In 2019, MassDEP adopted a standard of 20 ppt for six PFAS combined for groundwater cleanup in areas where groundwater is a current or potential drinking water supply.



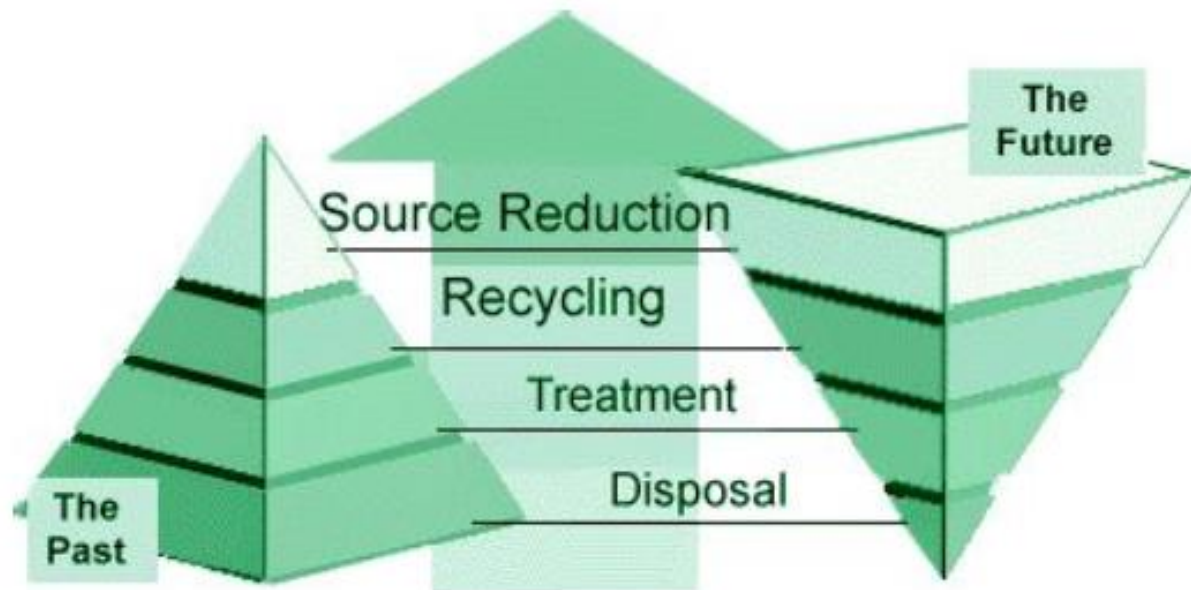
WWTP sampling

MassDEP has begun a sampling program at wastewater treatment facilities to test for the presence of PFAS and to further locate upstream sources.

Source Reduction and P2

Pollution prevention (P2) or “Source Reduction”: The **reduction, elimination, or prevention** of pollution at its source.

- Results in less waste to control, treat, or dispose of
- Reduces hazard posed to public health and the environment



Typical practices:

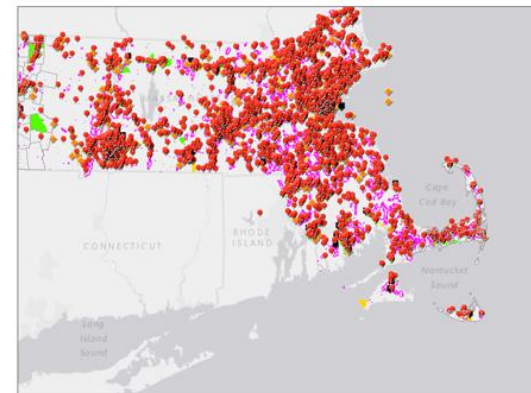
- Equipment or technology modifications;
- Process or procedure modifications;
- Reformulation or redesign of products;
- Substitution of raw materials; and
- Improvements in housekeeping, maintenance, training or inventory control.

OTA – Boots on the Ground





- Chemists, engineers, public health professionals
- Hands on manufacturing experience
- OTA staff understand:
 - regulations
 - bottom line
 - how to implement changes





Technical Assistance

No cost and confidential

Help MA “toxics users”

Receive referrals from local government agencies

Environmental compliance

Reduce or eliminate use of hazardous chemicals

Energy efficiency and renewables

Water conservation

Proven results

Obstacles For Company Outreach

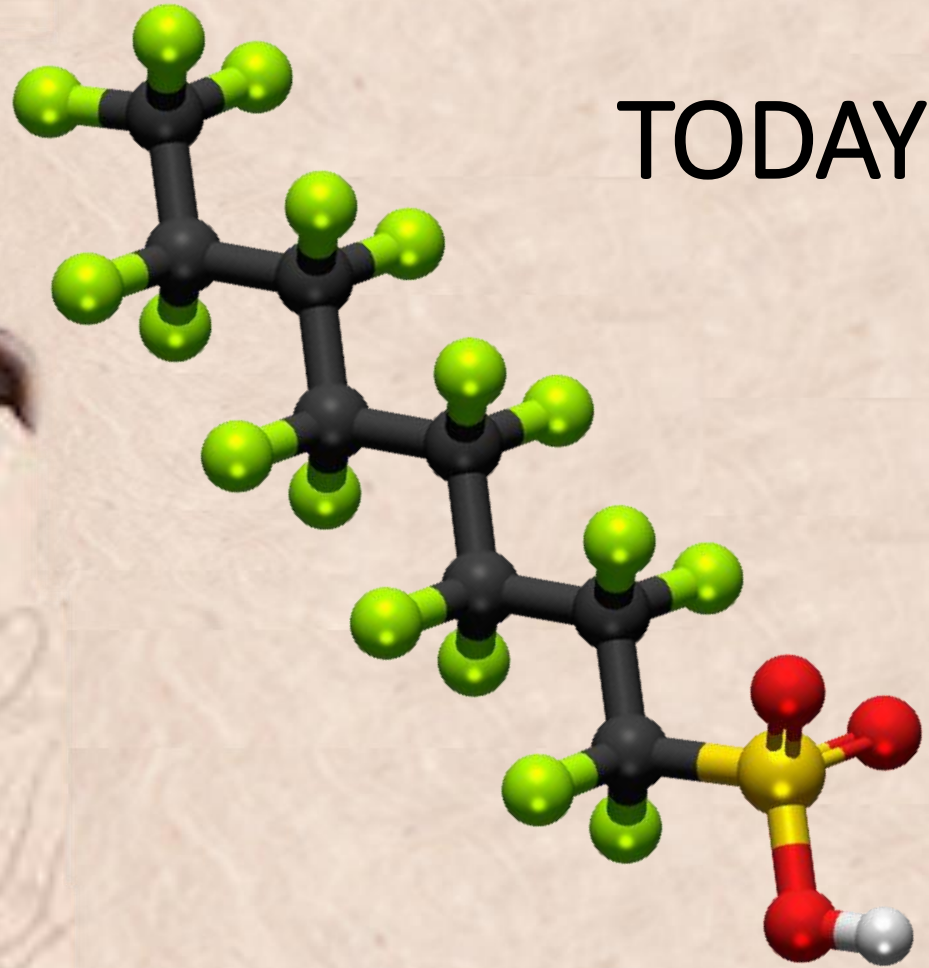
- Lack of company awareness
- PFAS not listed on SDS
- Confidential Business Information (CBI)
- Tainted incoming feedstock
- Regrettable substitution
 - 'Shorter-chain' is still a **'forever chemical'**
- Fear of liability
 - Other PFAS sources = misplaced liability
- No existing regulations for use

No Health
Data
≠
Safe

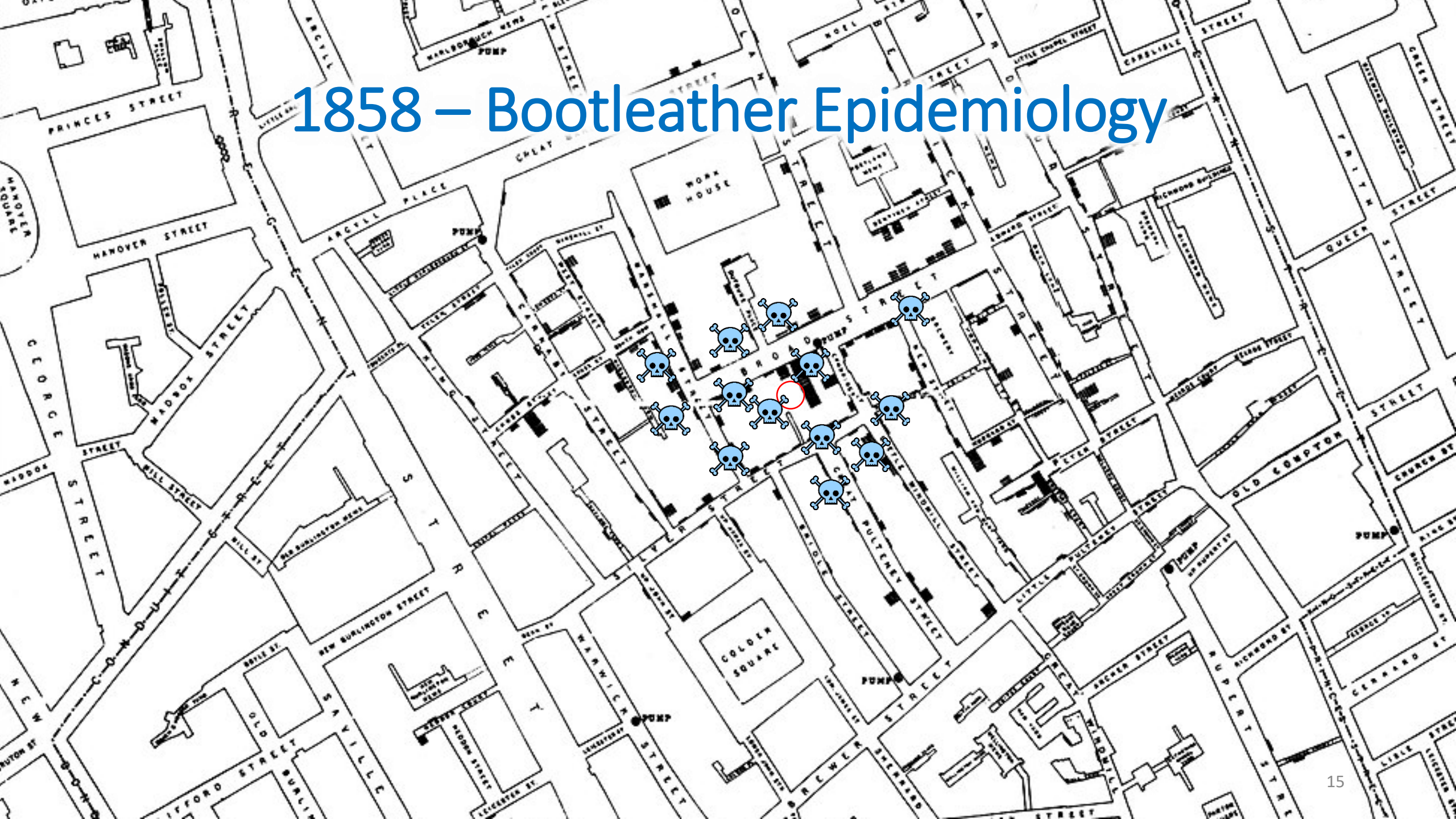
1858



TODAY



1858 – Bootleather Epidemiology



Today: Mapping the sources

- Fire training facilities
- Rug manufacturers
- Clothing manufacturers
- Airports
- etc.



Identifying the industries

SIC Code	Industry
2821	Plastics Materials & Synthetic Resins
3479	Metal Coating & Allied Services
3999	Manufacturing Industries
2295	Coated Fabrics, Not Rubberized
5172	Petroleum Products

NAICS Code	Industry
322220	Paper Bag & Coated & Treated Paper Manufacturing
334419	Other Electronic Component Manufacturing
33599	All Other Miscellaneous Electrical Equipment & Component Manufacturing
335929	Other Communication & Energy Wire Manufacturing

Process for Identifying Companies



Search Online Libraries for SICs / NAICS



Visit Company Websites

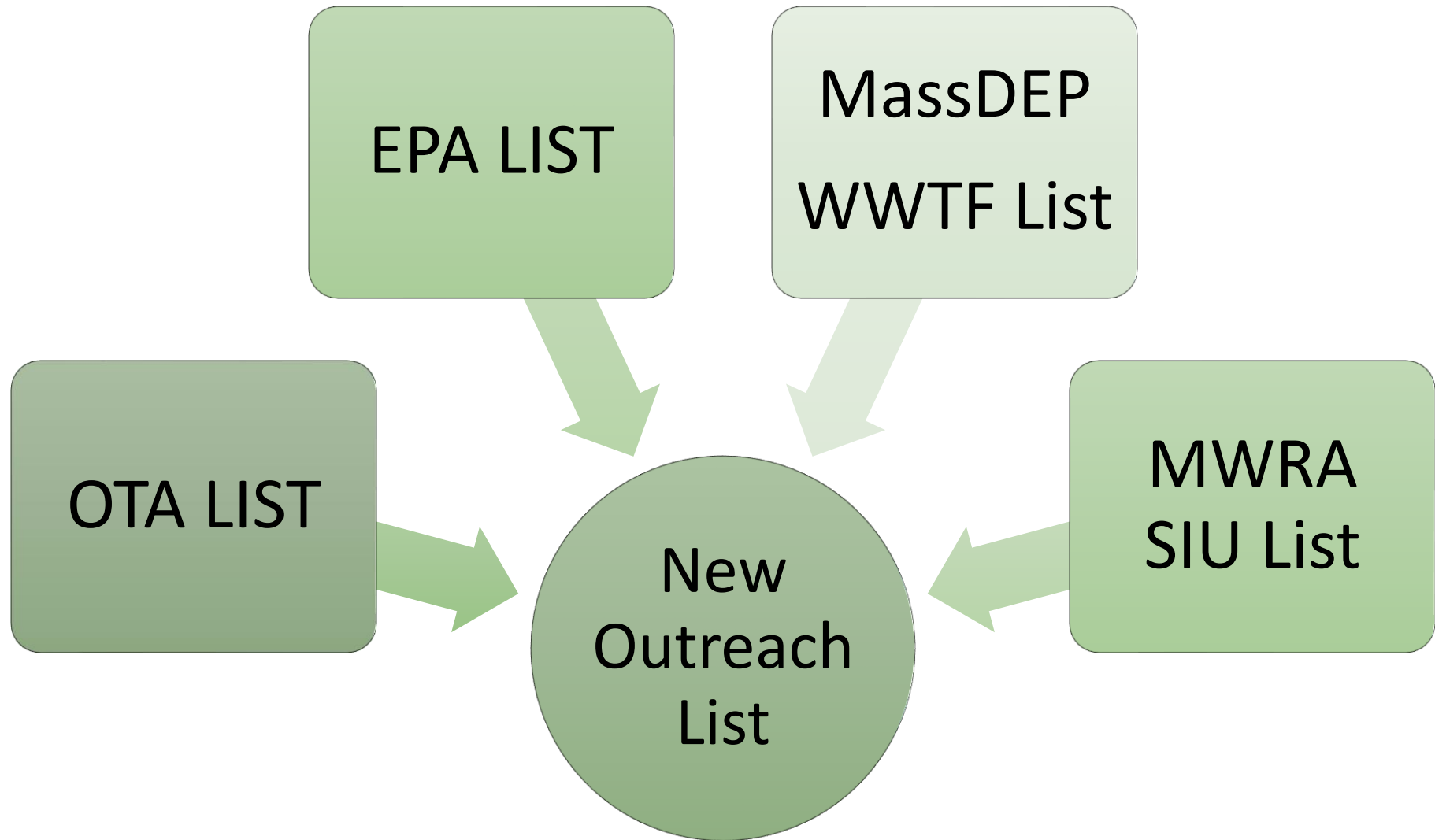


Manufactures in MA

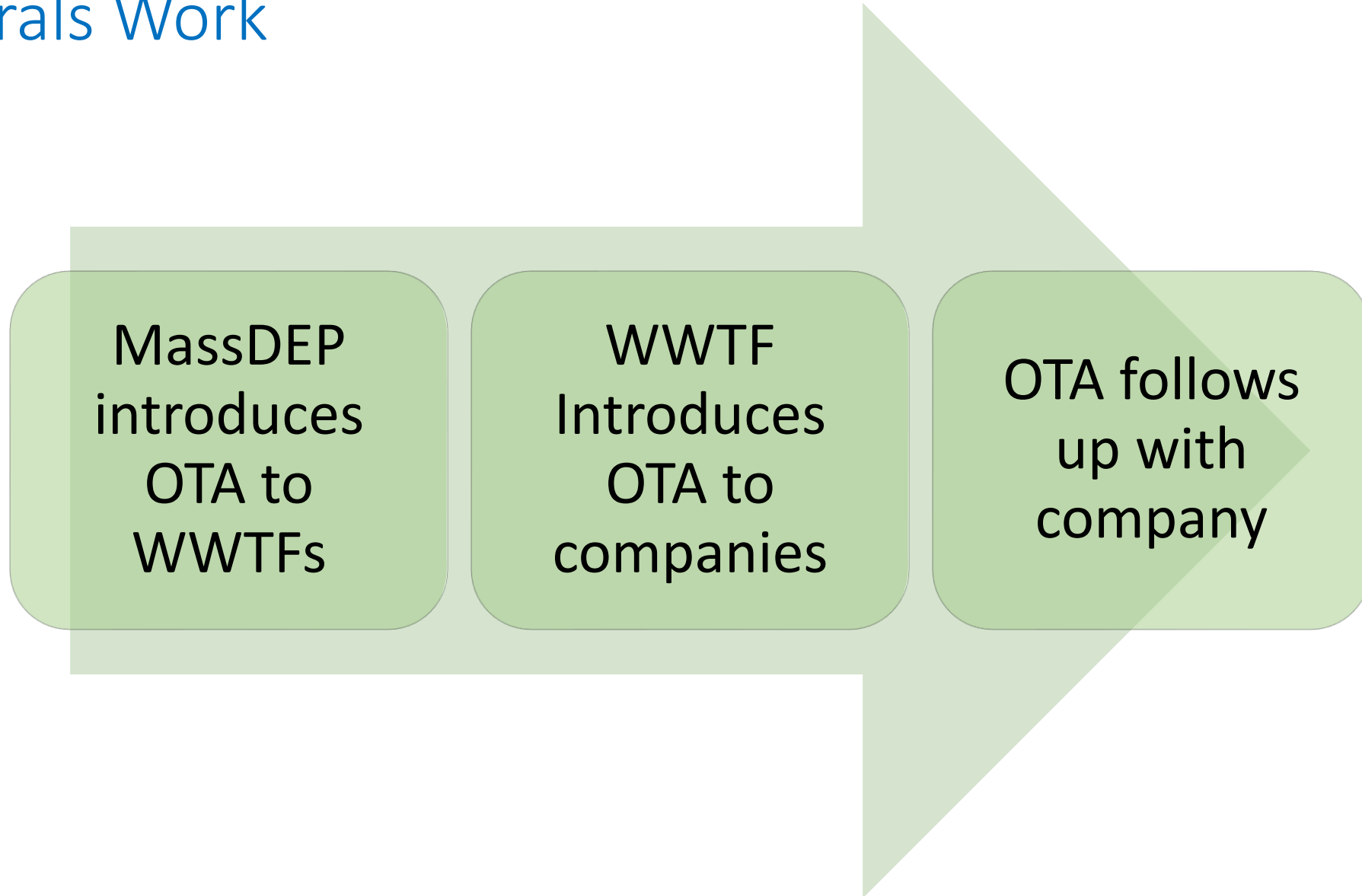


Process Qualifies as Non-stick Coating, Waterproofing, etc.

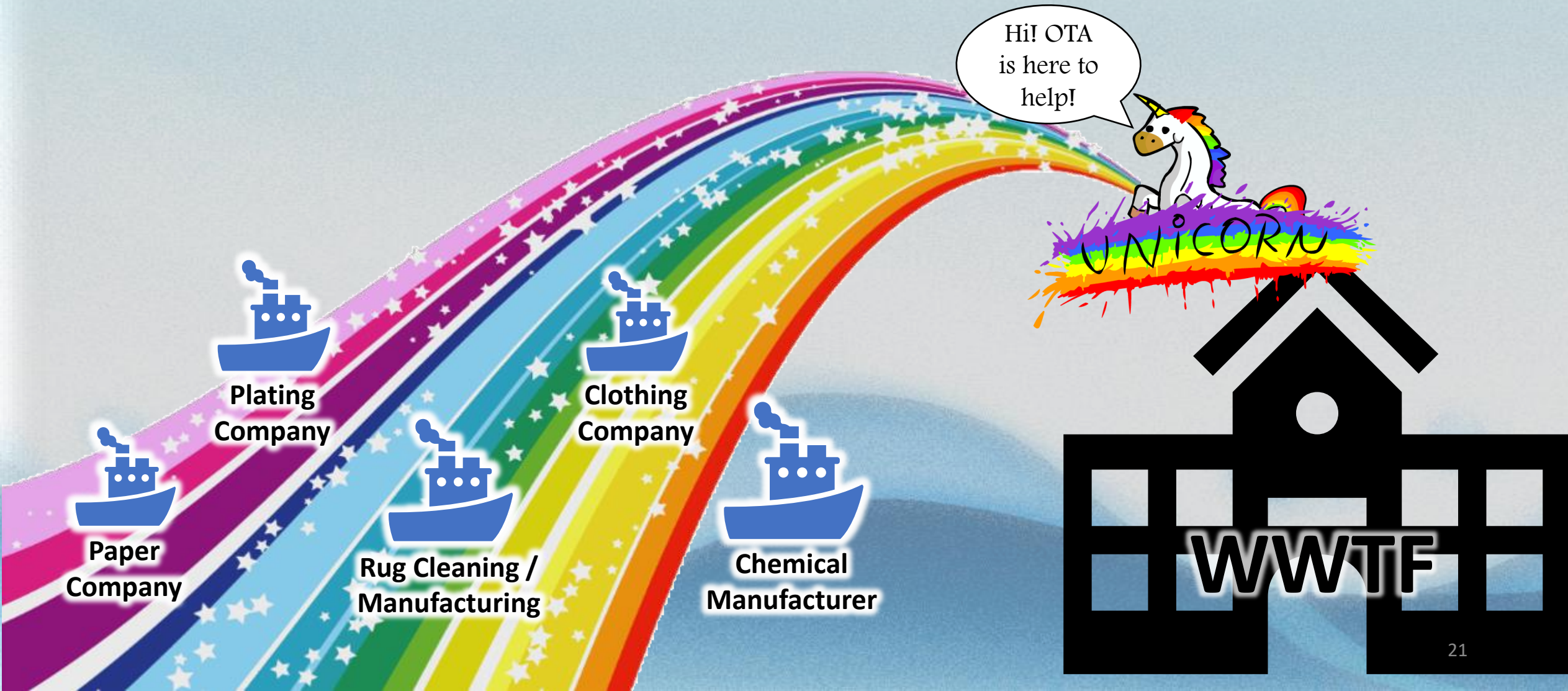
New Partnerships and Opportunities



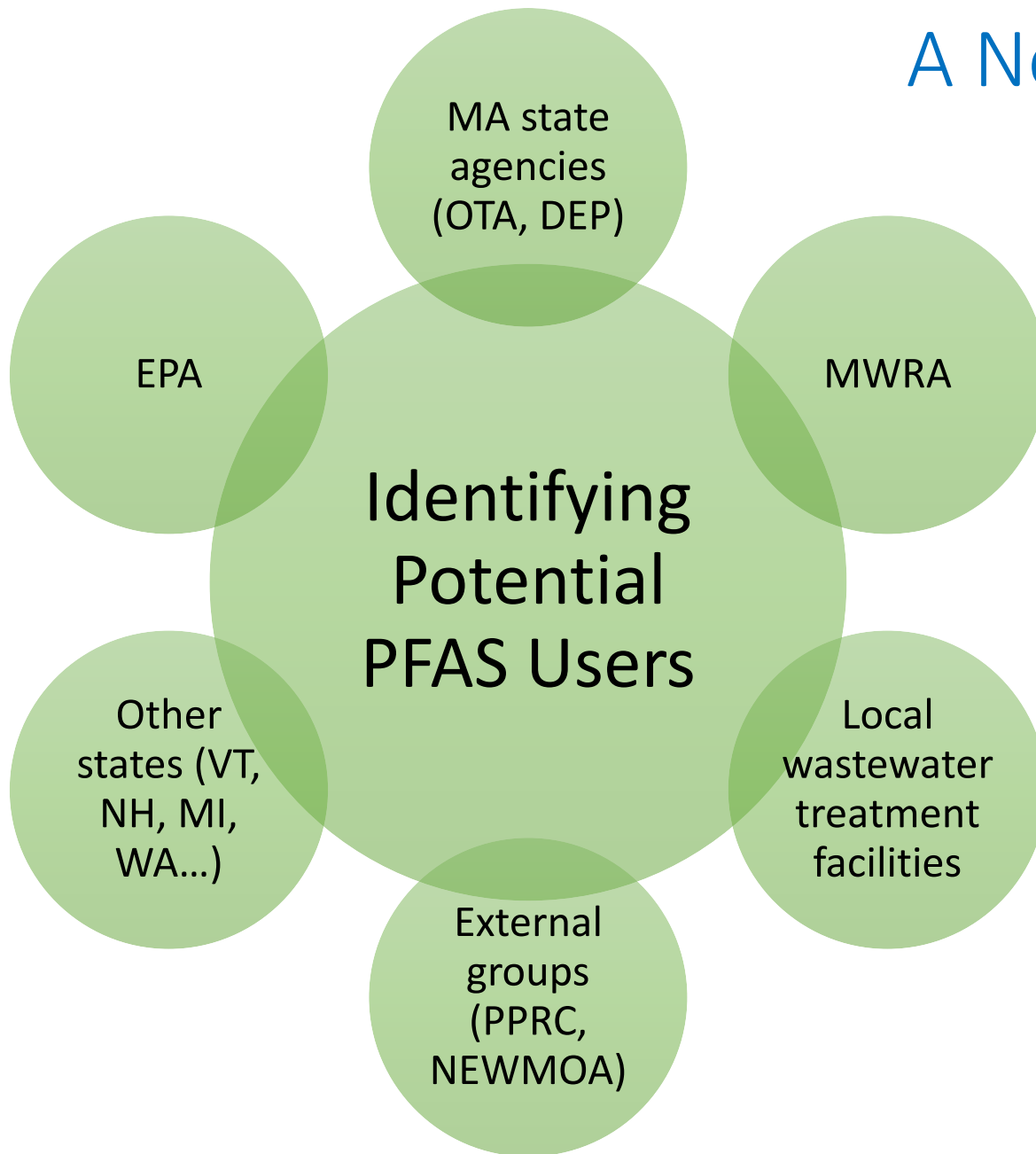
Referrals Work



How OTA Helps Upstream



A New Public Health Collaboration



Agencies Combined SIC / NAICS Codes Lists

DEP & EPA chose WWTF upstream from high-priority Drinking Water Protection Areas

- Marlborough Westerly
- Westborough
- Lowell
- MWRA

OTA is providing **free, confidential** technical assistance to industries upstream:

- Assistance identifying PFAS in products
- Helping companies communicate with suppliers
- Pollution prevention and toxics use reduction
- Climate change
- Resource conservation

Preventing Chemicals from Reaching Your Community

OTA's **free, confidential** services can assist and encourage businesses to incorporate toxics use reduction, thereby decreasing chemical releases, by offering the following services:

Accepting your referrals to
toxics users

Identifying users of PFAS, or
other chemicals, within your
community

Engaging with businesses
within your community

A joint upstream effort between the TURA Program & your BOH can help reduce the amount of chemicals that reach your community.

Contact Us

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<https://www.mass.gov/orgs/office-of-technical-assistance-and-technology-ota>



@Mass_OTA