



Massachusetts Toxics Use Reduction



TURA Administrative Council December 2023



Agenda

- Welcome and Introductions
- Approval of August 10, 2023 Meeting Minutes Vote
- Commitment to Quarterly Meetings
- TURA Goals
- TURA Implementing Agencies
- TURA Governing & Advisory Bodies and Administrative Council Statutory Mandate
- Process for Adding Chemicals to the List
- Regs Package Status
- TURA program updates
- Adjourn

Note: Public comments/questions will be held until opened for general discussion

Format for Questions and Discussion

- Opportunities for questions and comments at the end of each topic
- Administrative Council members participate **first** by raising hand
- Non-Administrative Council members will be given an opportunity to participate **after** the Administrative Council member discussion
- Raise hand function will be used

How to Ask Questions

Use Zoom function to raise your hand for comments or questions.

To access the "Raise Hand" function, click "Participants" at the bottom of your screen, and then click the "Raise Hand" button that appears under the list of participants. This will notify the host that you have a question or comment.

- Administrative Council members participate **first** by raising hand
- Non-Administrative Council members will be given an opportunity to participate **after** the Administrative Council member discussion

August 10, 2023 Meeting Minutes Vote



Approval of August 10, 2023
meeting minutes

Commitment to Quarterly Meetings



Goals of TURA



Reduce toxic waste statewide by 50% through toxics use reduction (TUR)

Advance innovation in TUR while sustaining and enhancing the competitiveness of MA businesses

Promote reductions in the production and use of toxic and hazardous substances

Strengthen enforcement of existing environmental laws and regulations

Establish TUR as the preferred method of complying with laws and regulations governing toxics and minimizing the risks of toxics

Promote coordination between all state departments and agencies administering toxics programs

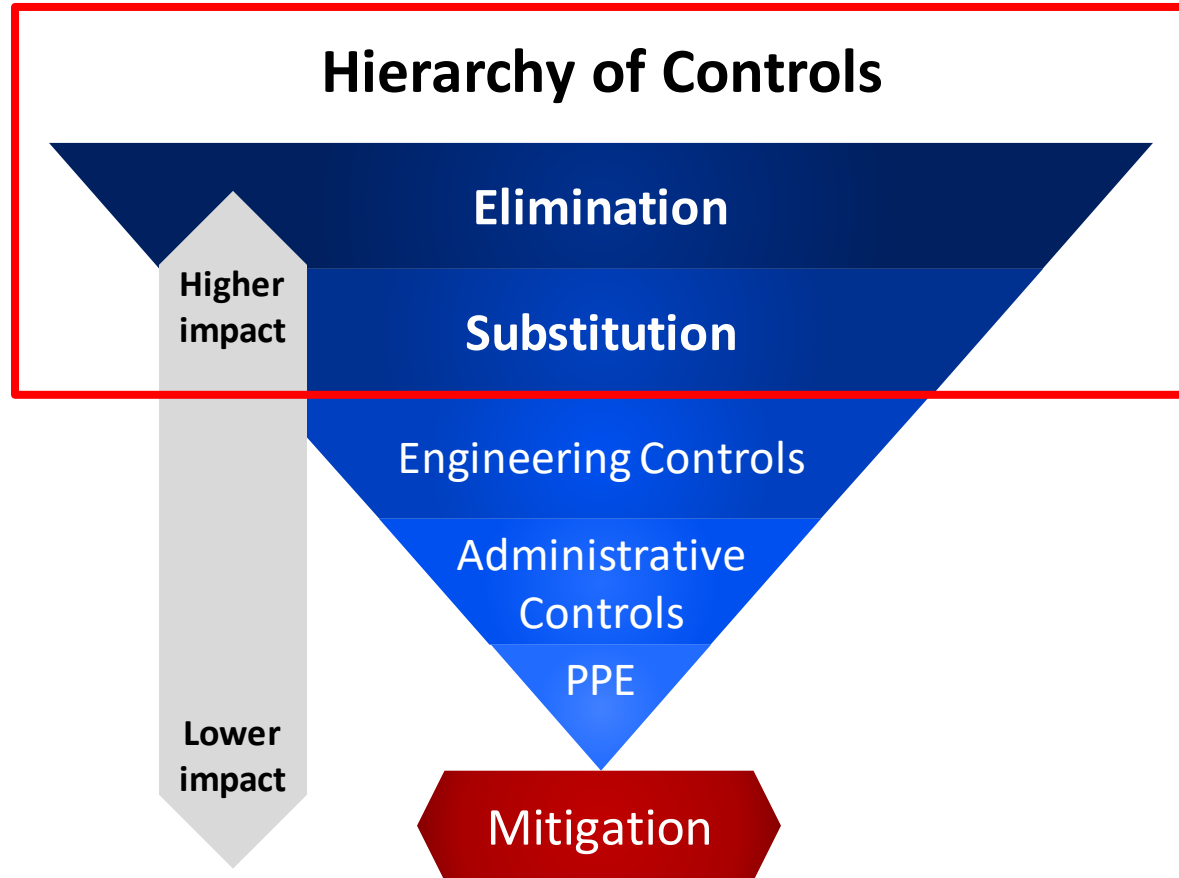
Source Reduction and Pollution Prevention

Source reduction, or pollution prevention:

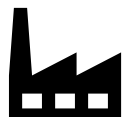
The reduction, elimination, or prevention of pollution at its source.

Results in less waste to control, treat, or dispose of

Reduces hazard posed to occupational and public health and the environment



MA Toxics Use Reduction Act (TURA) of 1989



Who reports?

Massachusetts manufacturers who:

- Operate under certain Standard Industrial Classification (SIC) codes
- Have >10 employees
- Manufacture or process $\geq 25,000$ lbs (or otherwise use $\geq 10,000$ lbs) of listed substances

Covers a little over 400 MA facilities



What TURA requires

- Report chemical use to the state
- Pay a fee (which funds the program)
- Create a Toxics Use Reduction Plan every two years

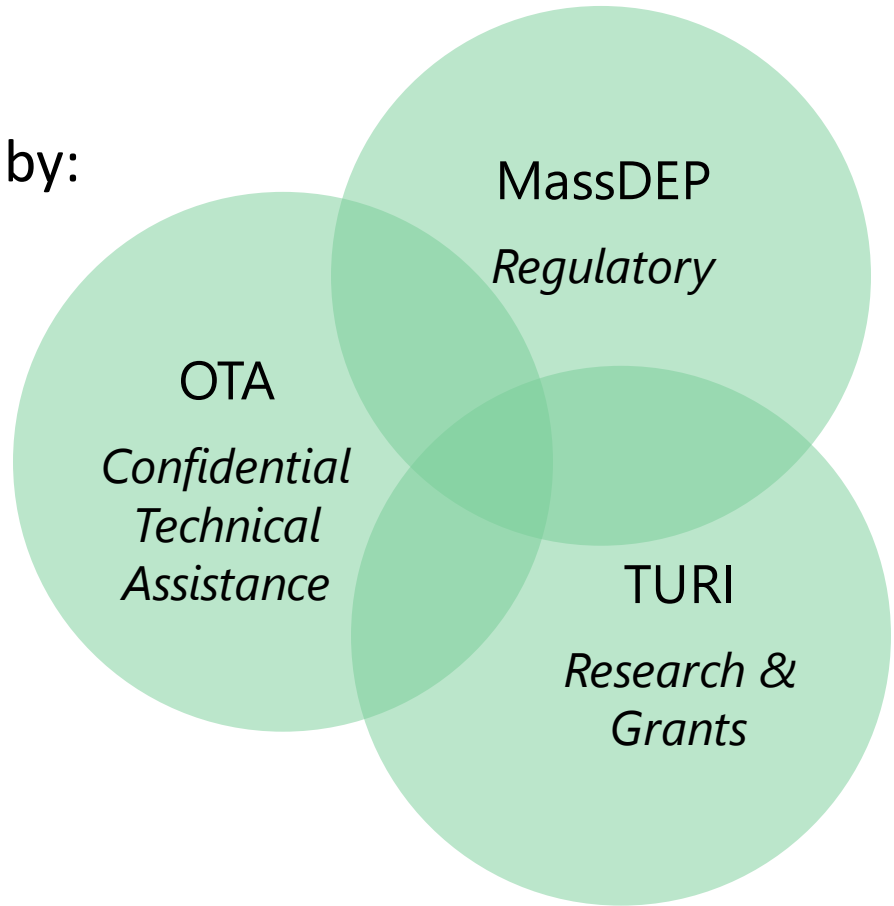
NOT A BAN

TURA does not prohibit companies from using listed chemicals

TURA Program Implementation

The TURA Program is co-implemented by:

- The Massachusetts Department of Environmental Protection
- The Toxics Use Reduction Institute at UMass Lowell
- The Massachusetts Office of Technical Assistance

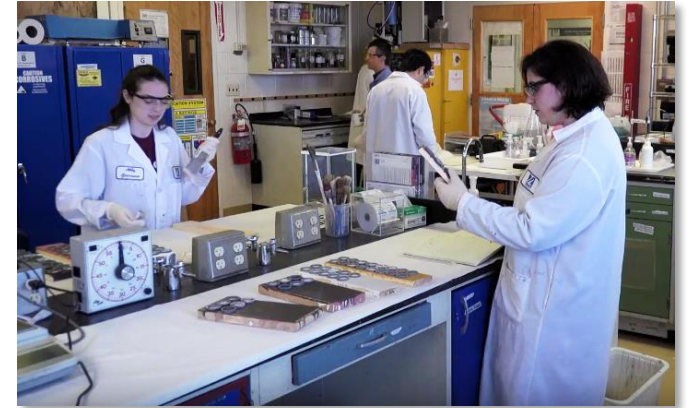


Massachusetts Dept. of Environmental Protection (MassDEP) - Regulatory Arm

- Writes regulations based on environmental legislation, and policies and procedures to support the regulations
- Inspects regulated facilities to ensure regulatory compliance, and issues enforcement for non-compliance
- Provides outreach and education on regulatory programs
- Certifies TUR planners
- Evaluates program success and provides analysis for program improvement

Toxics Use Reduction Institute (TURI) - Scientific Research & Grants Arm

- Education and Training for TUR Planners
- Science and Policy
 - Science Advisory Board
 - Policy Analysis, Data Analysis
- Research, development and assessment of safer alternatives
 - University research grants
 - Laboratory services for industrial and janitorial cleaning
 - Alternatives assessment
- Technical and financial support to businesses and communities
 - Grants and information resources
 - Business supply chain workgroups and research



Office of Technical Assistance (OTA) - Technical Assistance Arm

- **Non-regulatory** agency
- Provides **free, confidential** technical and compliance assistance to MA businesses that use toxic substances
- Gives **concrete recommendations** for toxics reduction and resource conservation

OTA has conducted 3,500 site visits at 1,500 facilities, reducing **millions of pounds** of toxic chemicals and **millions of dollars** in operating costs.

TURA Governing and Advisory Bodies



Science Advisory Board

Managed by TURI
Appointed by Governor
Recommends chemicals



Advisory Committee

Appointed by Secretary
Multi-stakeholder policy input
Advises Administrative Council



Administrative Council

Chaired by Secretary or
designee
TURA governing body

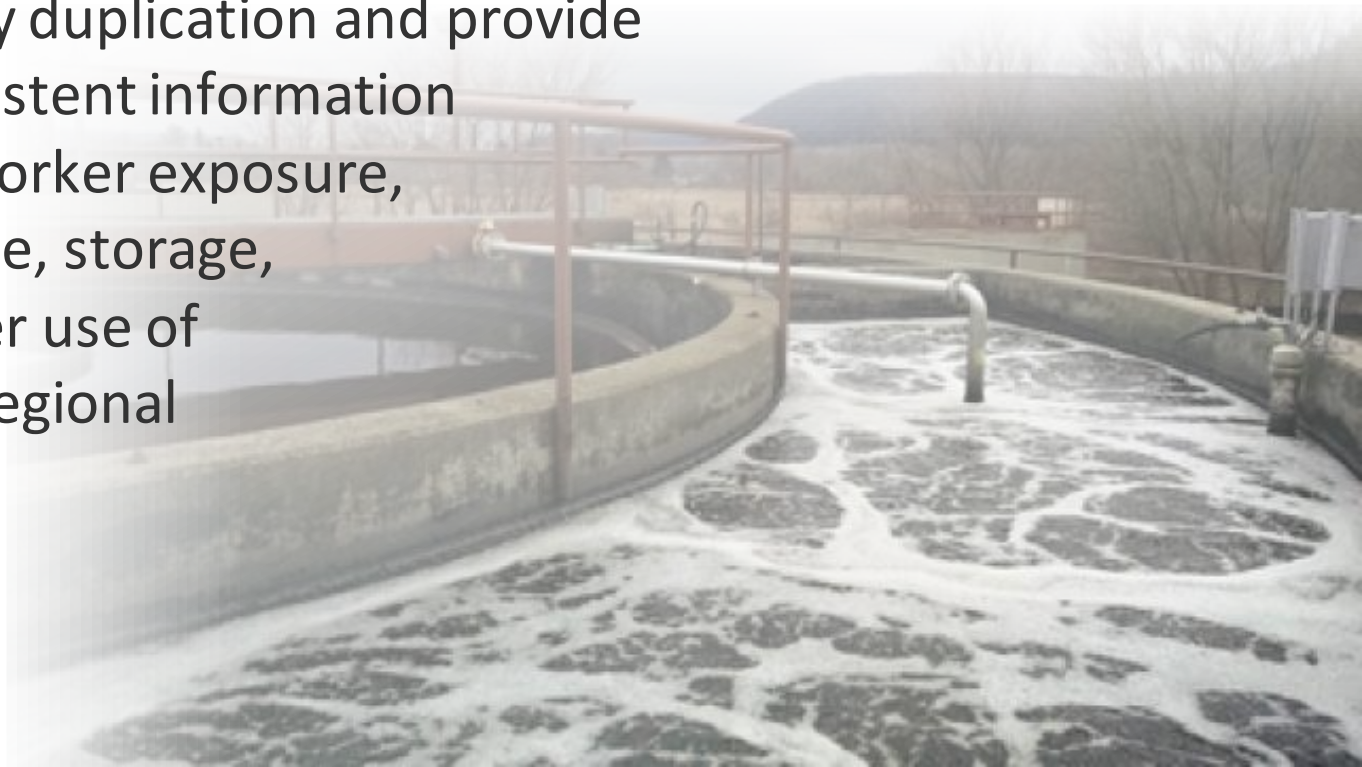
TURA Administrative Council Statutory Duties

The council shall **promote increased coordination of efforts** to enforce these laws and regulations and also **determine how state programs should be coordinated to promote most effectively toxics use reduction in the commonwealth.**



TURA Administrative Council Statutory Duties

Identify **all state agency and POTW requirements** to minimize unnecessary duplication and provide for up-to-date and consistent information about manufacturing, worker exposure, distribution, process, sale, storage, disposal, release or other use of chemicals on a facility, regional and statewide basis.



TURA Administrative Council Statutory Duties

The council shall **adopt**, and from time to time amend or repeal, rules and regulations which it deems necessary for the proper administration of its responsibilities pursuant to this chapter.



TURA Administrative Council Statutory Duties

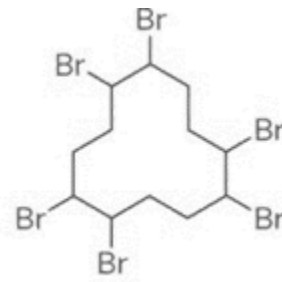
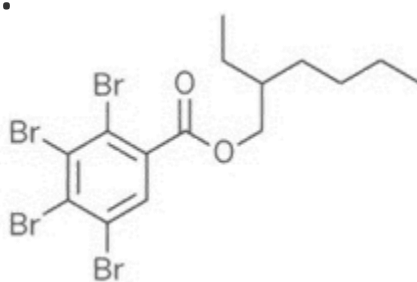
The council shall annually make policy recommendations in a **report to the governor** regarding toxics use reduction and the implementation of this act which is filed with the clerk of the House of Representatives and the clerk of the Senate. This report includes:

- Expenditures made from the Toxic Use Reduction Fund
- Summaries of deliberations / actions
- Toxics use reduction achievements

ANNUAL REPORT
Massachusetts Toxics Use Reduction Program
FISCAL YEAR 2022

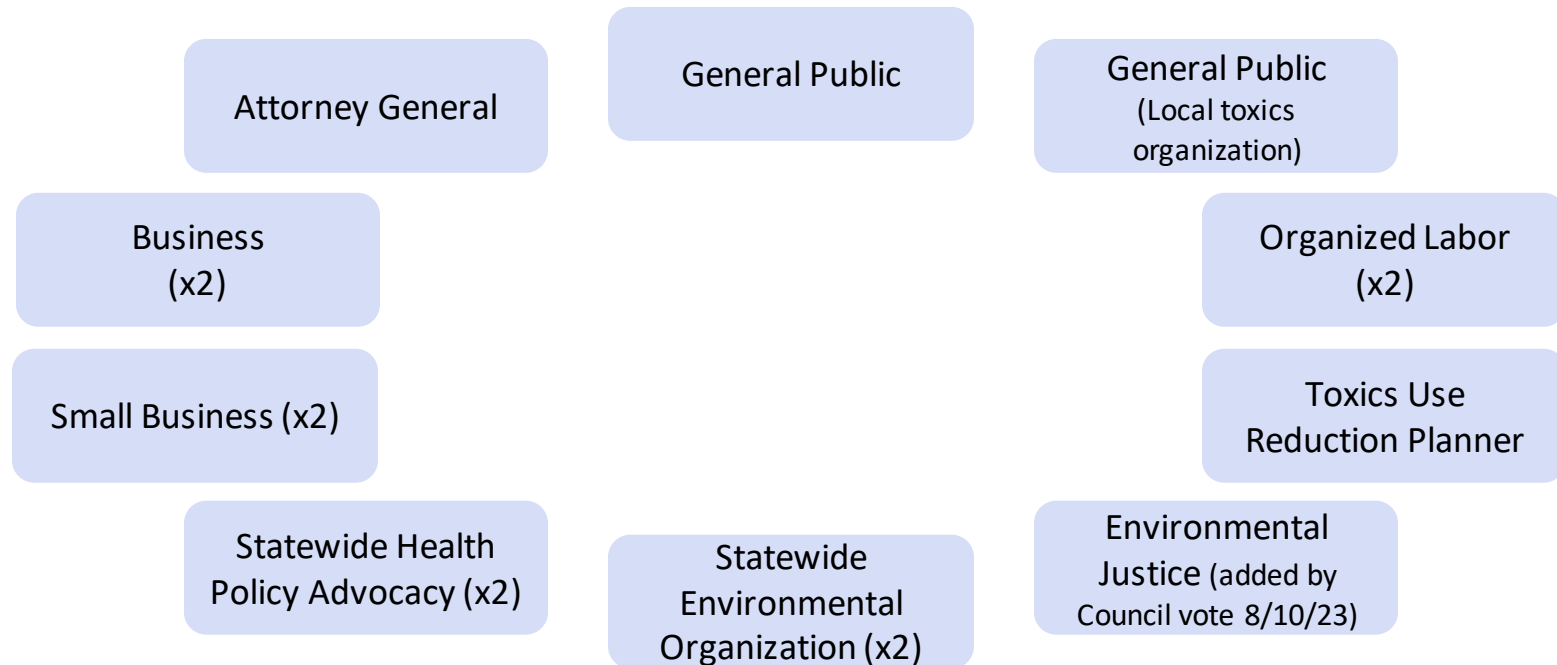
TURA Administrative Council Statutory Duties

In order to promote and effect toxics use reduction, the council **may comment on all proposed regulations pertaining to toxics** prior to their promulgation.



TURA Administrative Council Statutory Duties

The **Chair** must appoint members of an [Advisory Committee](#), which must include – but is not limited to – the following seats:

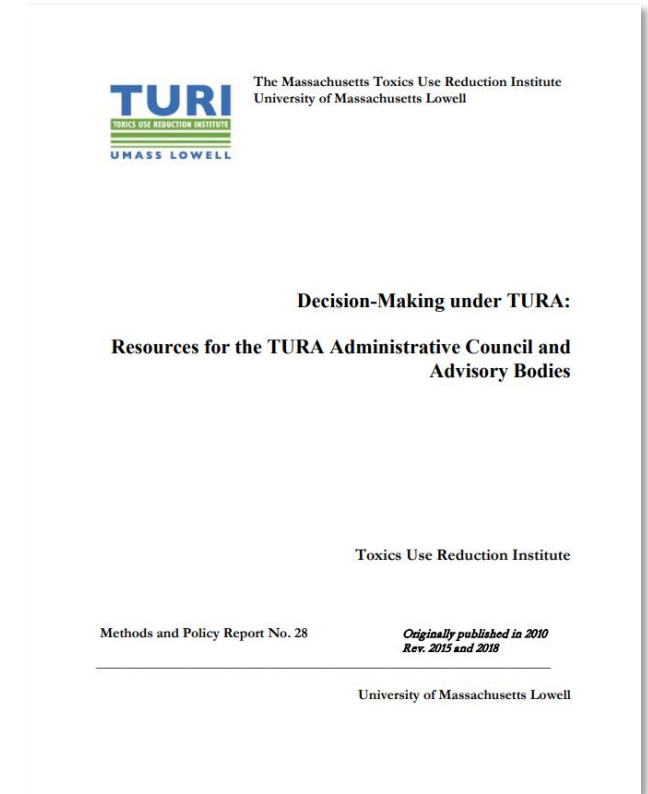


TURA Administrative Council Statutory Duties

The council shall, whenever it considers it necessary or favorable, establish ad hoc committees. The chairperson of the council, subject to the approval of the majority of the council, shall appoint members of ad hoc committees. Membership of the ad hoc committees shall not be limited to members of the advisory board.

Decision-Making Under TURA: Resources for the TURA Administrative Council and Advisory Bodies

- Origin: The TURA Administrative Council requested this document be created to reference decision making processes and roles
- Designed as a resource for members of the TURA Governing and Advisory Bodies
- Resources include:
 - Overview of principles, roles and responsibilities related to TURA program decision making
 - Outline of current practices regarding listing and delisting decisions, chemical categorization, and other TURA program decisions
 - Background information on other topics, such as the role of expert judgment in decision making
- Living document, designed to be updated over time



The TURA Administrative Council must follow the duties described in the TURA statute and regulations.

Pathways for Adding to TURA List

EPCRA (TRI)

Additions are **required**

“Each year the council shall adjust the toxic or hazardous substance list to add or delete substances consistent with changes in said toxic chemical list.”

[M.G.L 21I, §9\(A\)](#)

CERCLA

Additions are **allowed**

“The council may add or delete substances from the toxic or hazardous substance list consistent with changes in the lists of substances [under CERCLA].”

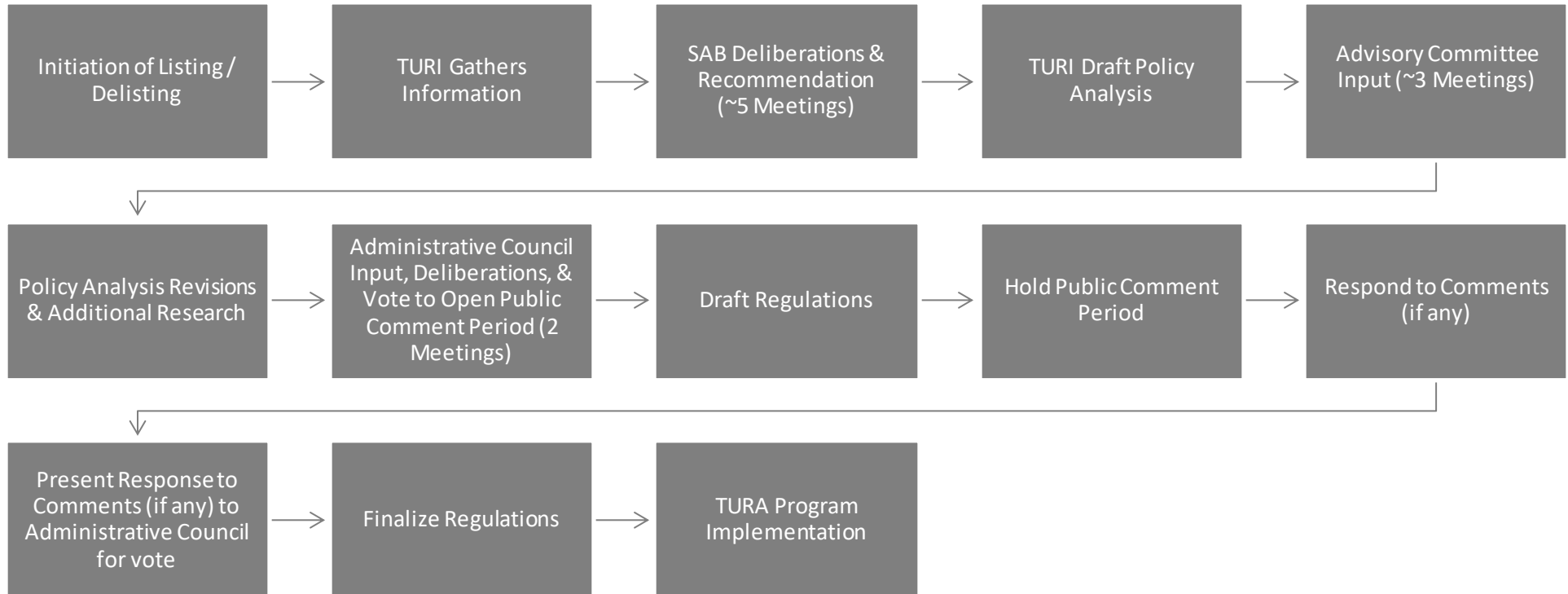
[M.G.L 21I, §9\(B\)](#)

Additional Pathways

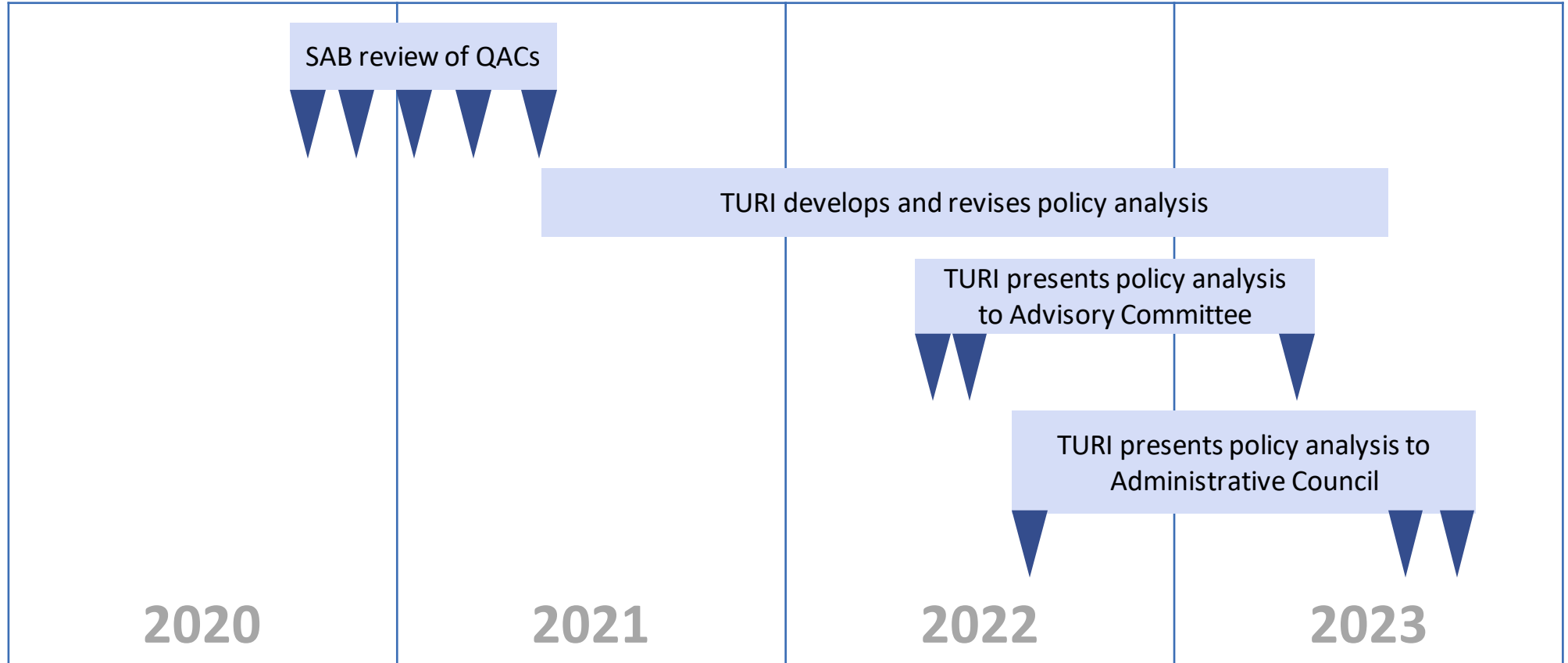
“The council may add or delete additional substances from the toxic or hazardous substance list.... [TURI] and the [SAB] shall provide recommendations proposing additions or deletions.”

[M.G.L 21I, §9\(C\)](#)

Sample Process for Additions to TURA List (Page 16)



Example: Process of QAC Policy Analysis Development and Review



Current Regulations Package: Toxics Release Inventory (TRI) Additions

EPCRA (TRI)

Additions are **required**

“Each year the council shall adjust the toxic or hazardous substance list to add or delete substances consistent with changes in said toxic chemical list.”

[M.G.L 21I, §9\(A\)](#)

EPCRA (TRI) Additions

9 PFAS

100 lb threshold

DINP Category

Normal TURA threshold
(25k/10k)

12 Other Chemicals

11 normal TURA threshold (25k/10k)
One 100 lb threshold

Important Dates Proposed TRI Additions to TURA List

- 10/13/23 – Opening of Public Comment Period
- 1pm – 3pm, 11/3/23 – Virtual Public Hearing
- 5pm, 11/3/23 – Public Comment Period Closes

QACs Regs Package Status

Will report back with dates

TURA Program Updates



TURA Form S Filing/Reporting Changes

- TURA category: Certain PFAS NOL
 - Reportable for 2022, reports due July 1, 2023
 - Guidance available in [TURA Reporting Instructions Appendices](#)
 - [Updated TURA Chemical list](#)
 - [Includes Certain PFAS NOL guidance list on separate sheet](#)
 - [PFAS Webinar](#)

PFAS Tracking and Reporting: TRI and TURA

	Report to TRI	TURA tracking starting	Report to DEP	How Reportable	Threshold
TURA Certain PFAS NOL	-----	January 1, 2022	July 1, 2023	As a category	25,000 lbs. manufactured/ processed; 10,000 lbs. otherwise used
172 TRI/TURA PFAS – 2020	July 1,2021	January 1, 2021	July 1, 2022	Individually	100 lbs. (de minimis exemption applies; see <u>MassDEP website</u> for details)
Four TRI PFAS - 2021	July 1, 2022	January 1, 2023	July 1, 2024		
Four TRI PFAS - 2022	July 1, 2023				
Nine TRI PFAS - 2023	July 1, 2024	Anticipated January 1, 2024	Anticipated July 1, 2025		

Science Advisory Board

- Recommendation to list 24 EPA Registered ADBAC and DDAC quaternary ammonium compounds (QACs, or “quats”)
 - QACs fact sheet
- Deliberations on Carbon Nanotubes and Carbon Nanofibers petition in process
 - SAB Recommendation to list Single- and Multi-Walled Carbon Nanotubes (MWCNTs) and Carbon Nanofibers
 - SAB Recommendation to designate Multi-walled Carbon Nanotubes as Higher Hazard Substances. SAB voted to put SWCNT and CNF on more hazardous list
 - Flame retardants – advising MassDEP on new MA flame retardants law
 - [March 10, 2023 SAB meeting minutes](#)
 - [May 12, 2023 SAB meeting materials](#)
- Next meeting: November 2023 (virtual)

TURA Program Agency Updates – Need to Update all slides below



New Leadership



Executive Office of Energy and Environmental Affairs

- Rebecca Tepper, Secretary
- Stephanie Cooper – Undersecretary for the Environment



MassDEP – New Commissioner, Bonnie Heiple



UMass Lowell – New Chancellor, Julie Chen

Staff Changes



[Elisheva Thoreen, OTA](#)

Environmental Engineer

Retirement of Jim Cain, longtime Environmental Engineer



[Rebecca Dolan, MassDEP](#)

Environmental Analyst

Katelynn King,
MassDEP

Environmental Analyst



[Gabriel Salierno, TURI](#)

Green Chemist

[Karen Thomas, TURI](#)

EHS Specialist

Katie Daly, TURI

Communications and Outreach

[Stephan Anstey, TURI](#)

Office Assistant

[Alex Symko, TURI](#)

Safer Chemicals Specialist

[Amelia Wagner, TURI](#)

Safer Chemicals Specialist



A Proclamation

Whereas, Champions of Toxics Use Reduction Day recognizes outstanding leaders who are making the Commonwealth a safer place for all residents to live, work, learn and play; and

Whereas, Many businesses rely heavily on hazardous chemicals, and their use results in risks to workers, surrounding communities and the environment; but these champions are the leaders working to create an economy that doesn't rely on toxic chemicals and instead prioritizes health, safety, and equity; and

Whereas, These champions show us that there are other ways to do business — the status quo can be changed. Everyone — whether they are firefighters or electronics manufacturers — can make a difference by replacing harmful chemicals; and

Whereas, Choosing safer alternatives protects both the public and the bottom line. When companies and communities step up and reduce dependence on toxic chemicals, it creates a ripple effect that inspires other businesses, industry leaders, and communities to join the movement as well; and

Whereas, These champions — and the 30 years of champions that precede them — prove that when businesses look for opportunities for toxics use reduction, it encourages and enables them to go beyond the scope of regulations and prioritize chemical safety in other areas;

Now, Therefore, I, Maura T. Healey, Governor of the Commonwealth of Massachusetts, do hereby proclaim June 20th, 2023, to be,

CHAMPIONS OF TOXICS USE REDUCTION DAY

And urge all the citizens of the Commonwealth to take cognizance of this event and participate actively in its observance.
Given at the Executive Chamber in Boston, this first day of June, in the year two thousand and twenty-three, and of the Independence of the United States of America, the two hundred and forty-sixth.

By Her Excellency

Maura T. Healey
MAURA T. HEALEY
GOVERNOR OF THE COMMONWEALTH

Nicholas DiStasio
NICHOLAS DISTASIO
DEPUTY GOVERNOR OF THE COMMONWEALTH

William Francis Reilly
WILLIAM FRANCIS REILLY
SECRETARY OF THE COMMONWEALTH

God Save the Commonwealth of Massachusetts



2023

CHAMPIONS OF TOXICS USE REDUCTION CEREMONY

June 20, 2023
Great Hall, State House

11:00 a.m. to 12:00 p.m.
Presentation of Awards

12:00 to 1:30 p.m.
Networking & Light Lunch

Welcoming Remarks

Baskut Tuncak

Director, Toxics Use Reduction
Institute, University of
Massachusetts Lowell

Representative Daniel Cahill

Co-Chair, Joint Committee on
Environment and Natural Resources

Industry Awards

S.E. Shires
Steel Art Company

Undersecretary Stephanie Cooper

Undersecretary for Environment,
Executive Office of Energy and
Environmental Affairs

Small Business Awards

Donoma Gymnastics
Conklin Office Furniture

Representative Kate Hogan

Speaker Pro Tempore, House of
Representatives

Community Awards

Nantucket PFAS Action Group
& Firefighter Partners

Commissioner Bonnie Heiple

Commissioner, Massachusetts
Department of Environmental
Protection

Industry & Research Awards

Transene Company &
UMass Lowell's Nagarajan
Research Team

Dr. Anne Maglia

Vice Chancellor for Research and
Innovation, University of
Massachusetts Lowell



TURI Strategic Priorities

Halogenated Solvents - Drive to Zero

PFAS

Flame Retardants

FY23 Champions of Toxics Use Reduction

Focus on Safer Solvents

- S.E. Shires, *Holliston*
 - substituted ultrasonic cleaning for halogenated solvents
- Steel Art Company, Norwood
 - substituted aqueous cleaning for nPB
- Conklin Office Furniture, Holyoke
 - testing alternatives for safer adhesives and thinners



FY23 Champions of Toxics Use Reduction

Focus on PFAS

- Prof. Ram Nagarajan, UMass Lowell, partnering with Transene Co., *Danvers*
 - Surfactants in electronics manufacturing
- Nantucket PFAS Action Group, with firefighter partners in Fall River, Hyannis and Nantucket
 - Reducing PFAS in firefighter turnout gear
 - Training for firefighters around PFAS



FY23 Champions of Toxics Use Reduction

Focus on Flame Retardants

- Donoma Gym, *Stow*
 - Replacing foam pit cube with non-flame retardant foam cubes



TURI FY24 Grants

- **Business Grants** - *research, evaluate and adopt safer alternatives to toxics*
 - Food processing and furniture manufacturing
- **Academic Research Grants** - *Safer alternatives to PFAS in manufacturing and products*
 - Non-PFAS coatings for textiles and food packaging
- **Community Grants** – *focused on PFAS and toxics in children's play spaces*
 - Making use of UMass Lowell PIGE analytical equipment to detect PFAS

Training and Education

Toxics Use Reduction Planner Certification Course

- Required for consultants and recommended for in-house professionals wanting to certify TUR Plans for MA companies
 - More and more companies investing in their staff to gain this knowledge, practice and certification
- Kicked off Aug 15
- Features online and in-person instruction, veteran planners and small group work developing a TUR Plan for a fictionalized company



Fall TUR Conference

- Scheduling for November 8, 14 and 28
 - Virtual (via Zoom registration)
- TUR Fundamentals – Chemistry
- EU Chemicals Policy
- PFAS for Alternative TUR Planning
- Chemical choices: Investment and Insurance
- TUR Success stories and program update

Identifying PFAS Use in a Facility

Look for common uses of PFAS

- Common uses include textile coatings (e.g., water-repellency), surfactants, degreasing (e.g., solvents), metal finishing (e.g., fume suppressants), polymers and resins, and AFFF
- Check your SDSs for products likely to contain PFAS
- Note listings described as Confidential Business Information (CBI) or proprietary as items of concern – contact your supplier or [OTA](#) for help

Check available CAS numbers against reportable definition

- Review [TURA guidance](#) and use reportable definition to check CAS # against [existing databases](#)
- Paper and metal finishing industries, [contact OTA](#) to take survey
- If no CAS numbers are available for fluorinated compounds, contact your supplier or [OTA](#) for technical assistance

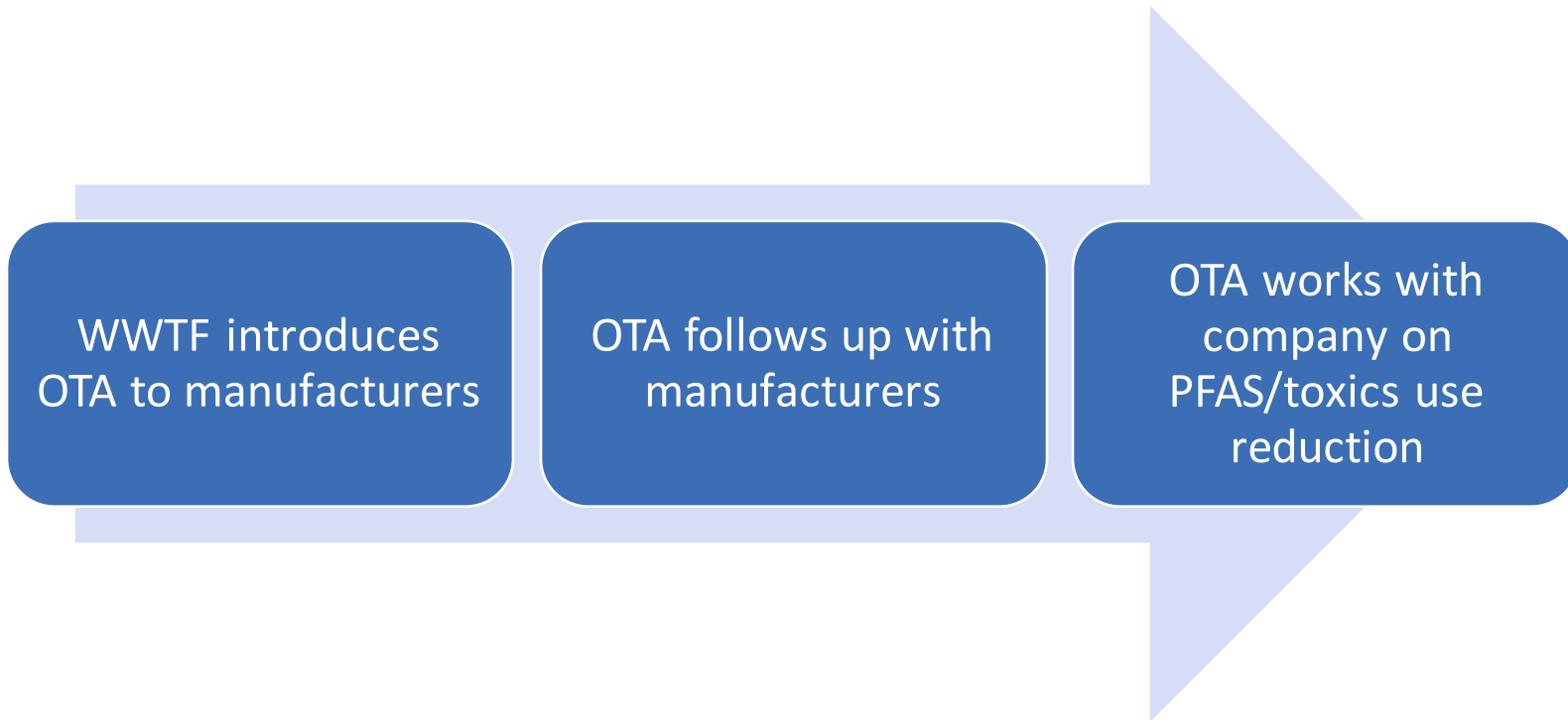
Send a notification letter to your chemical or product supplier

- Use [OTA's template](#) to notify your supplier
- Involve your purchasing department in this effort
- Keep records to demonstrate good faith effort

Contribute to developing product list

- The TURA program is developing a list of products confirmed to contain PFAS
- If your supplier notifies you of products containing PFAS, please share this information with OTA/TURI

Wastewater Treatment Facilities (WWTF) & Upstream Manufacturers



Resources for Companies: PFAS Identification

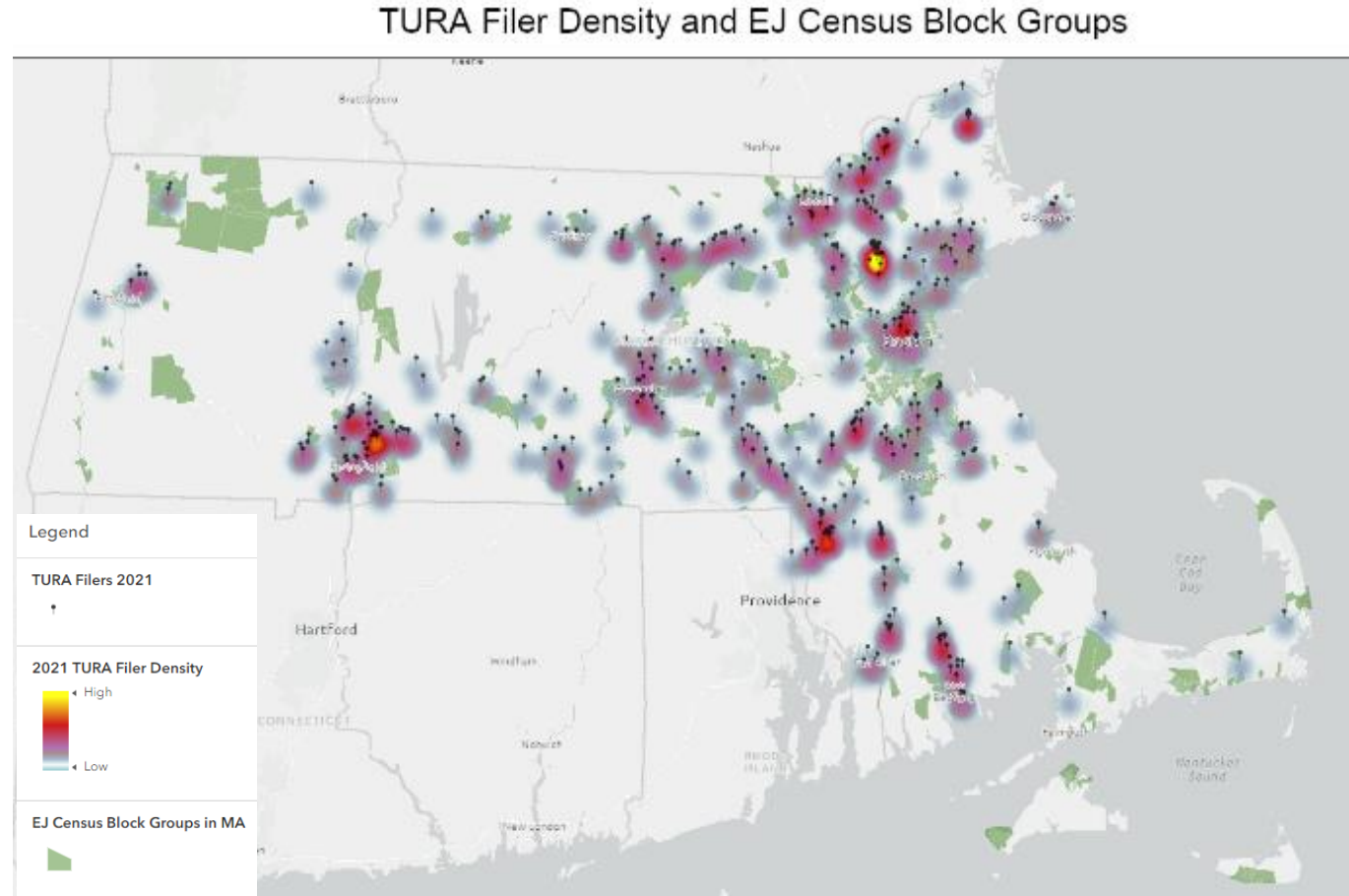
Assessments to
identify PFAS
sources



- OTA technical staff flag likely sources of PFAS
 - Companies may share list of CAS numbers with OTA
- OTA pursues research on products of concern
- Companies may opt to share product information with OTA to populate a list of PFAS-containing products

OTA/TURI Environmental Justice (EJ)

- OTA seeking candidates for new EJ seat on Advisory Committee
- OTA actively involved in EJ and climate justice work
- OTA developing GIS Story Map to illustrate current toxics use and release in relation to current EJ populations and historical redlining
- TURI conducted an EJ assessment to inform strategic planning process



Recent MassDEP Actions

RY2019-2021 outstanding enforcement actions addressed

25 Notices of Noncompliance (NON) and 3 Warning letters issued to facilities

5 NONs issued to TUR Planners

MassDEP Enforcements

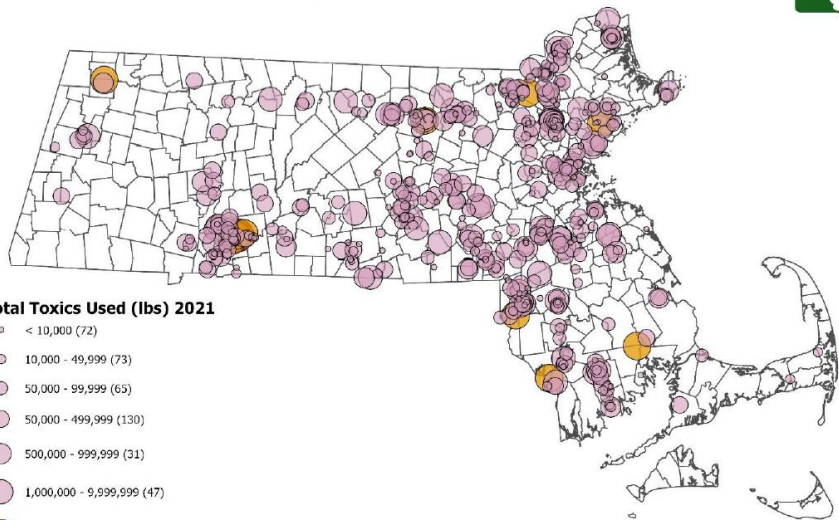
Violations seen include:

- Failure to file
- Missing chemicals
- Failure to respond to QA/QC request
- Missing or incomplete Plan Summaries
- Improper certification
 - Missing TUR Planner certifications
 - Failure to hire an active TUR Planner
 - Hiring a TUR Planner not certified to sign for the type of Plan completed
 - Signing a TUR Plan when Planner's certification had already expired
 - Signing for a Plan type that the TUR Planner not certified for

MassDEP has started the TURA audit program again

TURA Information Release: Reporting Year 2021

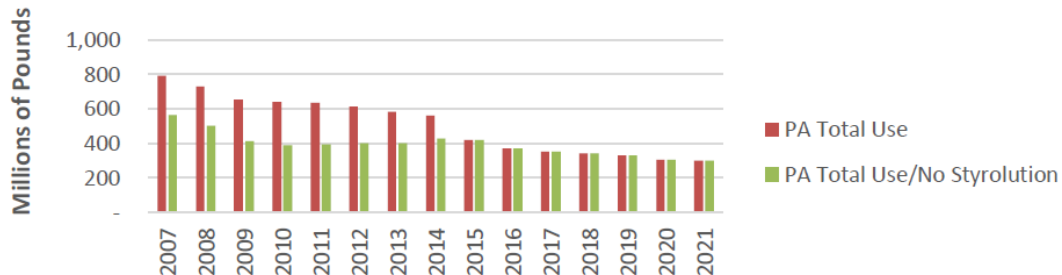
Toxics Use in Massachusetts
All Reported Use in 2021



Data Sources:
- TURA Facilities Locations: MassDEP BAY and GIS
- Toxics Use: 2021 Annual TURA Reports submitted to MassDEP/Toxics Use Reduction Program
- Municipal Boundaries: ITD/MapGIS

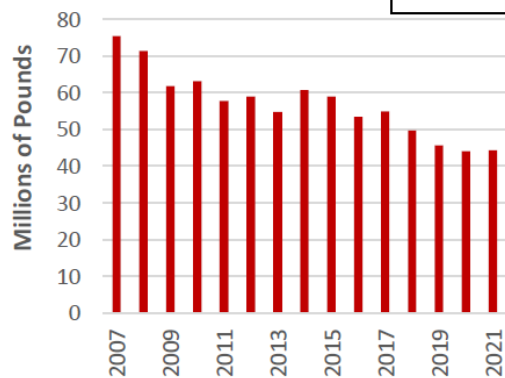
**Production Adjusted
Total Use**

62% ↓



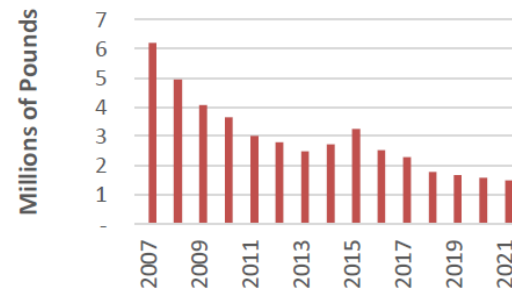
**Production Adjusted
Byproduct**

41% ↓



**Production Adjusted
On-Site Releases**

76% ↓



Contact us any time!



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General inquiry: info@turi.org
[TURI Team](#) contact information



Tiffany Skogstrom tiffany.skogstrom@mass.gov
Also for Administrative Council questions
OTA Staff: <https://www.mass.gov/service-details/otas-team>



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Reporting: Walter Hope walter.hope@mass.gov
C&E: Rebecca Dolan rebecca.g.dolan@mass.gov

Adjourn



Direct all questions to
TURA Administrative Council
Executive Director
Tiffany Skogstrom:
tiffany.skogstrom@mass.gov

Timeline for QAC Review of SAB/TURI Policy Analysis

- In September 2020, TURI published a call for information on QAC, soliciting information from stakeholders to complement literature review by TURI staff
- The SAB reviewed QACs at 5 meetings between September 2020 and May 2021, with over 50 studies and authoritative documents reviewed.
 - Representatives from the ACC and QRG/ADBAC DDAC ISC attended every SAB meeting on QAC;
 - A representative from QRG presented at one meeting.
- TURI then developed a policy analysis beginning in May 2021 and updated after Advisory Committee and Administrative Council meetings
 - which was presented in full twice (in addition to two minor updates) at the Advisory Committee and Administrative Council (note these presentations are not necessarily in series as represented by the flow chart)
- Note after first presentation of policy analysis at Advisory Committee and Administrative Council, revisions were made to the policy analysis based upon comments and questions from stakeholders
- However, also note that not all comments are appropriate to address in policy analysis

Governing Body QAC Discussions

Science Advisory Board	Advisory Committee	Administrative Council
9/30/2020		
11/18/2020		
1/14/2021		
3/11/2021		
5/20/2021		
	5/4/2022	
	6/27/2022	
	6/27/2023	
		7/13/2022
		8/10/2023

(Additional example) Process for adding a chemical or category to the TURA List: Example using QACs

