Remediation Roundtable

October 24, 2023

Remediation Roundtable Agenda

- Announcements
- Website Updates
- Roundtable Tips
- Updates:
  - Release-Based Clean Up Program Regulation Development
  - Bipartisan Infrastructure Law Grant
  - Road Salt
  - Scanning and the Public Portal
  - QA Workgroup
  - PFAS Action Plan

Announcements

Dates for 2024 Roundtable Meetings

- March 26th
- June 18th
- October 29th

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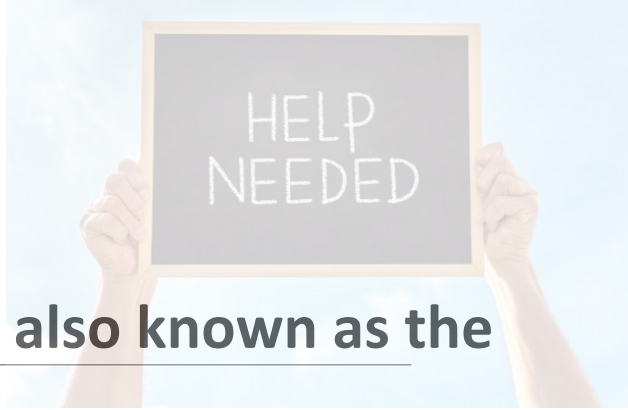
Want to make a difference!!



Join the State Board of Examiners of Environmental Professionals, also known as the Licensed Environmental Professionals board (LEP board)

- **Three available volunteer board positions currently, as per Sec. 22a-133v(b) of the Conn. Gen. Stat.:**

1. **A licensed environmental professional who is also a professional engineer;**
2. **an active member of an organization that promotes protection of the environment; and**
3. **an active member of an organization that promotes business.**

The LEP board, in coordination with DEEP, licenses the LEPs who practice in the state. Please share the DAS application with those who may have an interest in serving on the LEP Board. Job Opening: State of Connecticut Boards, Councils and Commissions Members - Department of Administrative Services (jobapscloud.com)

-Board meetings are held once per month (2nd Thursday) in person/with a ZOOM option

If you do apply, please let Liz McAuliffe know so she can keep track, as applications go directly to the Department of Administrative Services and not to DEEP

Webpage Updates

List of Contaminated or Potentially Contaminated Sites in Connecticut – CT Open Data

NEW! List of Contaminated or Potentially Contaminated Sites - Remediation Division

NEW! List of Contaminated or Potentially Contaminated Sites - SASU Case Management System

Scanning Project Progress – **NEW!** Best Method to Search for Documents

Connecticut Brownfields Inventory – Revised Inventory

Webpage Updates

NEW! Potable Water Program – Salt Investigations

NEW! Road Salt: More than Just a Grain of Salt

NEW! Road Salt FAQs

Release-Based Clean Up Program Regulation Development

Stakeholder Engagement Advice and Recommendations

Working Group Meetings – added meeting dates

Licensed Environmental Professional Program

Webpage Updates - Forms

- Electronic Document Transmittal Form – added document types (revised 9/11/23)
- Landfill Groundwater Monitoring Status Update Form – Added Emerging Contaminants section (revised 8/28/23)
- Environmental Condition Assessment Form – Updated Emerging Contaminants section (revised 10/13/23)

Questions or Comments?

Please type your Questions into CHAT

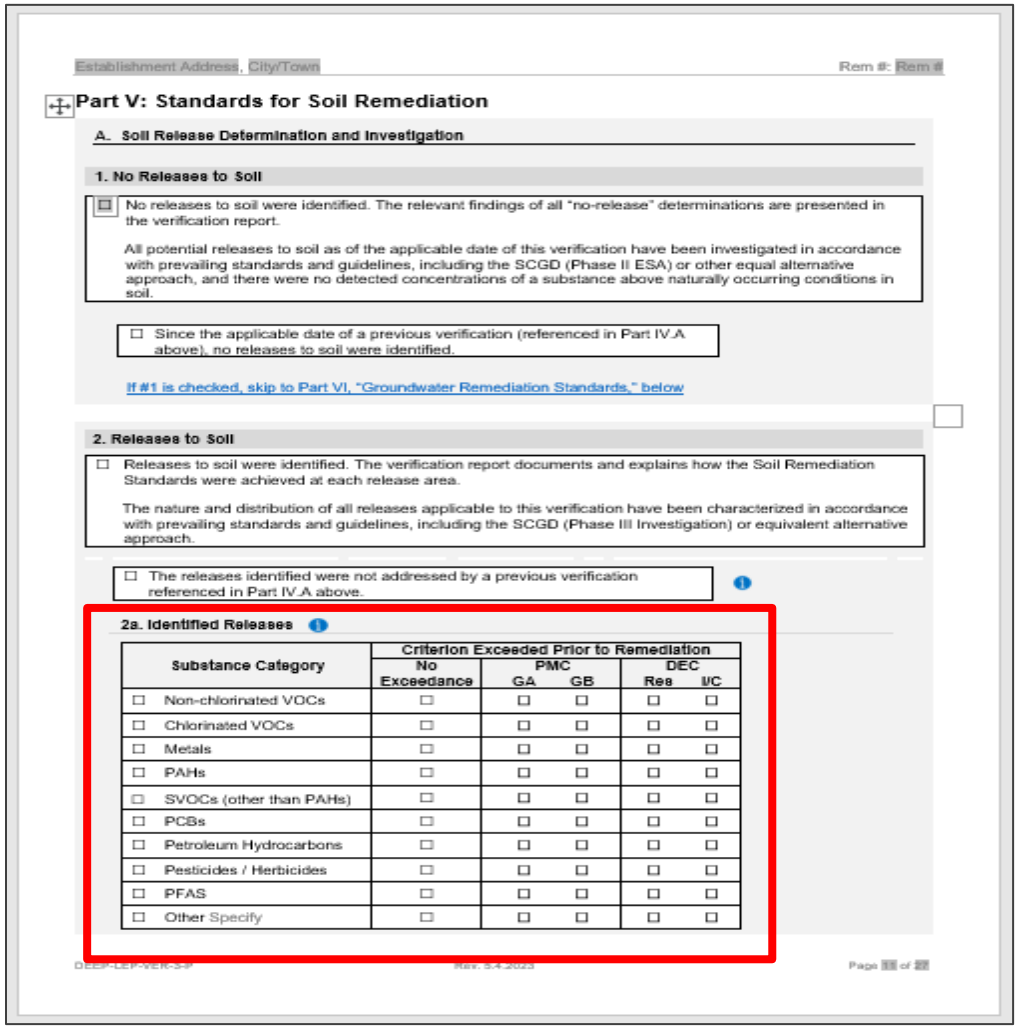
If we need further clarification, we may take you off mute to speak

www.ct.gov/deep/remediationroundtable

ROUNDTABLE TIP: VERIFICATION FORM

Kevin Vanderveer: Environmental Analyst, Remediation Division

Verification Tips



Establishment Address, City/Town — Rem #: Rem #

Part V: Standards for Soil Remediation

A. Soil Release Determination and Investigation

1. No Releases to Soil

☐ No releases to soil were identified. The relevant findings of all "no-release" determinations are presented in the verification report.

All potential releases to soil as of the applicable date of this verification have been investigated in accordance with prevailing standards and guidelines, including the SCGD (Phase II ESA) or other equal alternative approach, and there were no detected concentrations of a substance above naturally occurring conditions in soil.

☐ Since the applicable date of a previous verification (referenced in Part IV.A above), no releases to soil were identified.

If #1 is checked, skip to Part VI, "Groundwater Remediation Standards," below

2. Releases to Soil

☐ Releases to soil were identified. The verification report documents and explains how the Soil Remediation Standards were achieved at each release area.

The nature and distribution of all releases applicable to this verification have been characterized in accordance with prevailing standards and guidelines, including the SCGD (Phase III Investigation) or equivalent alternative approach.

☐ The releases identified were not addressed by a previous verification referenced in Part IV.A above.

2a. Identified Releases

Substance Category	Criterion Exceeded Prior to Remediation				
	No Exceedance	PMC GA	PMC GB	DEC Res	DEC I/C
☐ Non-chlorinated VOCs	☐	☐	☐	☐	☐
☐ Chlorinated VOCs	☐	☐	☐	☐	☐
☐ Metals	☐	☐	☐	☐	☐
☐ PAHs	☐	☐	☐	☐	☐
☐ SVOCs (other than PAHs)	☐	☐	☐	☐	☐
☐ PCBs	☐	☐	☐	☐	☐
☐ Petroleum Hydrocarbons	☐	☐	☐	☐	☐
☐ Pesticides / Herbicides	☐	☐	☐	☐	☐
☐ PFAS	☐	☐	☐	☐	☐
☐ Other Specify	☐	☐	☐	☐	☐

DEEP-LEP-VER-SP — Rev. 5.4.2023 — Page 11 of 22

Identified Releases

Verification Tips

2a. Identified Releases

Substance Category	Criterion Exceeded Prior to Remediation				
	No Exceedance	PMC GA	PMC GB	DEC Res	DEC I/C
☐ Non-chlorinated VOCs	☐	☐	☐	☐	☐
☐ Chlorinated VOCs	☐	☐	☐	☐	☐
☐ Metals	☐	☐	☐	☐	☐
☐ PAHs	☐	☐	☐	☐	☐
☐ SVOCs (other than PAHs)	☐	☐	☐	☐	☐
☐ PCBs	☐	☐	☐	☐	☐
☐ Petroleum Hydrocarbons	☐	☐	☐	☐	☐
☐ Pesticides / Herbicides	☐	☐	☐	☐	☐
☐ PFAS	☐	☐	☐	☐	☐
☐ Other Specify	☐	☐	☐	☐	☐

Identified Releases

- Check all substances released
- Even if they do not exceed any criteria
- Do not check off a substance if it was analyzed but not detected.

Verification Tips

Per- and Polyfluoroalkyl Substances (PFAS)

- PFAS should be considered constituents of concern and discussed as part of the conceptual site model if:
  - PFAS were used/produced/generated at the site
  - PFAS may have been used in site operations based on typical industry practices and potential PFAS sources
  - Wastes that may have contained PFAS were located at the site
- Sample for PFAS where it was used or provide justification as to why sampling isn't warranted
- Increasing numbers of verifications are being audited or rejected because emerging contaminants were not adequately considered
- Link to PFAS page:

  https://portal.ct.gov/DEEP/Remediation--Site-Clean-Up/Contaminants-of-Emerging-Concern/PFAS-Information-for-Environmental-Professionals

Questions or Comments?

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www.ct.gov/deep/remediationroundtable

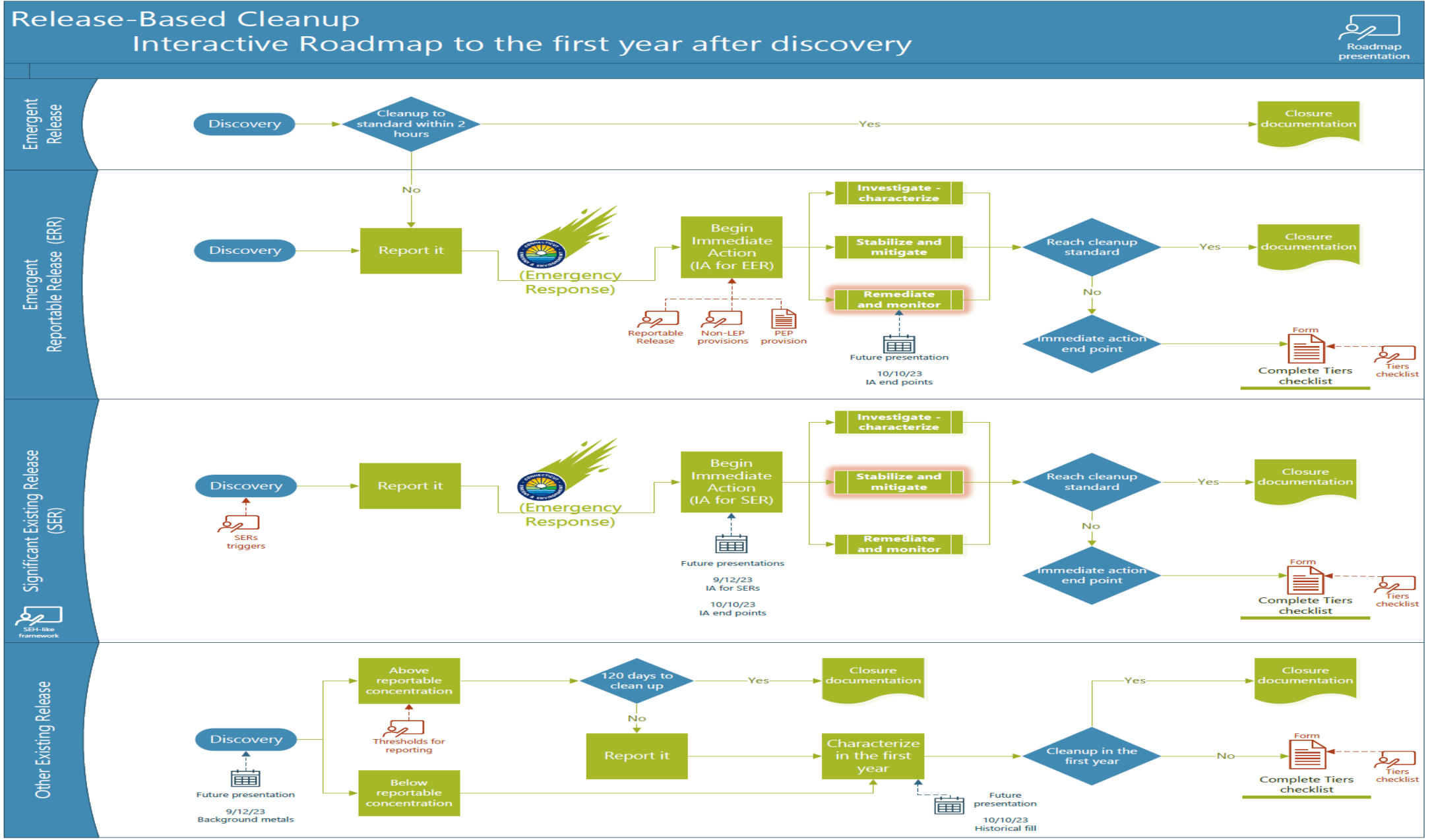
RELEASE-BASED CLEAN UP PROGRAM REGULATION DEVELOPMENT UPDATE

GRAHAM STEVENS, WATER PROTECTION AND LAND REUSE BUREAU CHIEF

RELEASE-BASED CLEAN-UP PROGRAM FRAMEWORK

Report	Report new release or newly-discovered historic release
Perform	Perform Immediate Action to contain and/or remove the release and prevent human exposure
Tier	If not completely cleaned up within one year of discovery, complete Tier Checklist to determine the level of oversight for remaining remediation
Perform	Continue cleanup actions until completed

Release-Based Cleanup
Interactive Roadmap to the first year after discovery



PRIMARY REMAINING TOPICS

Verifications/Certifications, Audits, Fees

Technical adjustments to the RSRs

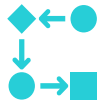
Developing forms and guidance

MODIFICATION TO THE CURRENT CLEANUP STANDARDS

Changes to the Remediation Standard Regulations will be made to incorporate policy objectives and quick and complete release cleanup

Certain new releases/spills require new cleanup approaches by permitted spill response contractors

Certain new releases/spills requires new cleanup pathways



Additional risk-based cleanup approaches are needed

Some will be simple risk-based approaches, self-implemented by LEPs

Others will be approved by DEEP and DPH with clearer requirements and timeframes for approval

BACKGROUND FOR RELEASE DETERMINATION

3 Options for Determining Naturally Occurring Background Metals

Option 1 – Default state-wide background

- **Baseline values**
- **No sampling required**

Option 2 – Site-specific background

- **At least 3 samples required**
- **State-wide upper limit**

Option 3 – Expanded site-specific background

- **More thorough evaluation**
- **LEP implementation or DEEP approval**

Selected State-Wide Background Metals

Reference Metal	Option 1 Default (Low UCL) *(no sampling)*	Option 2 Upper Limit (High UCL) *(3 samples min)*	CT Res DEC
Arsenic	3	6	10
Barium	385	756	4700
Cadmium	ND	0.3	34
Chromium	31	60	100 (Cr^6)
Copper	17	45	2500
Lead	18	27	400
Mercury	0.03	0.08	20
Nickel	13	36	1400
Selenium	ND	0.8	340
Silver	ND	ND	340
Zinc	44	104	20000

Units = milligrams per kilogram

ND = non-detect

Beryllium and cobalt, (not shown) were capped at the Res DEC.

GENERAL PERMIT/PERMIT BY RULE FOR ONSITE MANAGEMENT OF HISTORICALLY IMPACTED MATERIAL AT INDUSTRIAL/ COMMERCIAL SITES

Affidavit of facts be recorded on land records by parcel owner

Every 5 years parcel owner must certify to DEEP that polluted fill has not been relocated and what the current land use is

Parcel owner must notify DEEP if land use changes to residential activity (RSR definition) and responsible for cleanup to residential criteria

Permit transferable to new owners

Summary - Historically Impacted Material Provision

- **Uses current RSR definition of "polluted material"**
- **Maintains PMC exemption for polluted material**
- **Adds Permit by Rule option for industrial/ commercial sites (based on current land use)**
  - Identify and report historically impacted material
  - By end of year 1 – Complete characterization to the extent necessary to determine that remediation is not prudent, and enter a tier
  - By end of year 2 - Identify SERs
  - Remediate/mitigate SERs
  - Implement Permit by Rule

SPECIAL PATH FOR HOME HEATING OIL

- Only used if no impact to drinking water well or indoor air
- For homeowner with four units or fewer on parcel
- Soil must be excavated until clean or further excavation may undermine structural integrity of residence
- Closure report identifying pollution that remains and that remediation was performed to the maximum extent prudent

PRESENTATION, Q&A RESPONSE, AND ADDITIONAL COMMENTS ALL ONLINE

https://portal.ct.gov/DEEP/Remediation--Site-Clean-Up/Comprehensive-Evaluation-and-Transformation/Release-Based-Working-Group-Meetings

https://portal.ct.gov/DEEP/Remediation--Site-Clean-Up/Comprehensive-Evaluation-and-Transformation/Release-Based-Cleanup-Program-Stakeholder-Engagement

I’m happy to take a few questions

DEEP CERCLA 128(a) Grant Program

Ray Frigon Remediation Division Director

NEW!

DEEP'S CERCLA 128(a) Grant Program

Round 1

- Available in DECD's OBRD funding round #18
- Funding awarded to DEEP by the EPA under the Infrastructure Investment and Jobs Act (IIJA)
- DEEP administers the projects under EPA guidelines
- Open to non-profits and municipalities
- Grants awarded for assessment and/or remediation
- Expect funds to be available for the next 4 years

NEW!

DEEP'S CERCLA 128(a) Grant Program

Round 1

- Total Availability for Round 1- $485,000
- No minimum requested amount
- MAX Request per application:
    - $250,000 for assessment
    - $250,000 for remediation
- Special consideration for projects located in Environmental Justice Communities
- Projects that promote park space, greenways, recreational space or other non-profit purposes

NEW!

DEEP'S CERCLA 128(a) Grant Program

Environmental Use Restriction Compliance Project

- Request for Proposal issued by DEEP in August 2023
- WSP was selected from a very competitive pool of proposals
- Purpose is to enhance property owner compliance with EUR Regulations

Questions or Comments?

Please type your Questions into CHAT

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www.ct.gov/deep/remediationroundtable

ROAD SALT UPDATES

Roni Tanguay, Environmental Analyst
DEEP Remediation Division

Remediation Roundtable

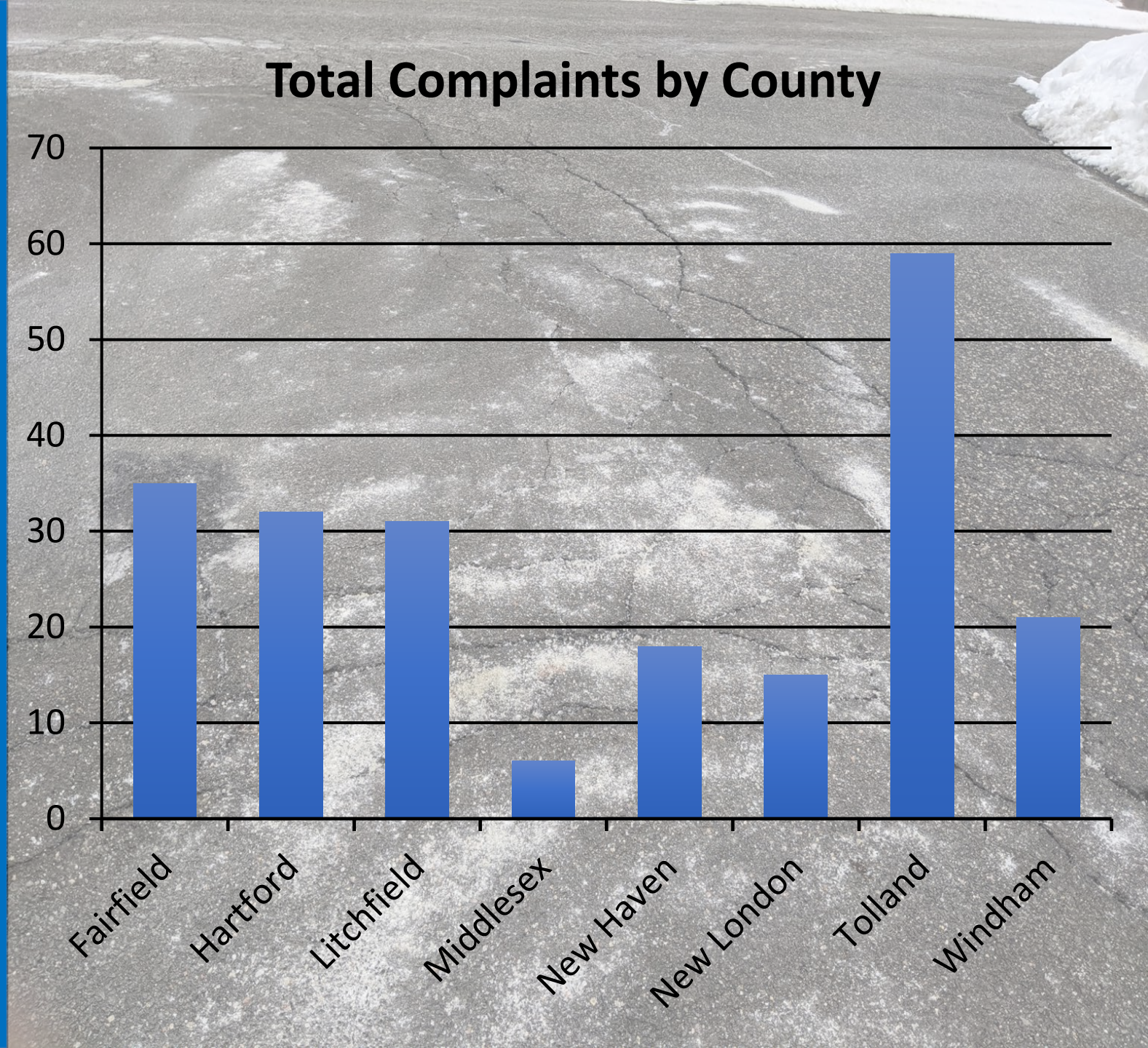
October 24, 2023

What Is The Problem?

- Introduction to the Environment
  - Road salt overapplication
  - Private property deicing applications
  - Salt storage
  - Ion Exchange Backwash Discharges
  - Fertilizers
  - Food Waste
- Research literature refers to as “Freshwater Salinization”
- Problematic for water supply wells as water corrosivity increases

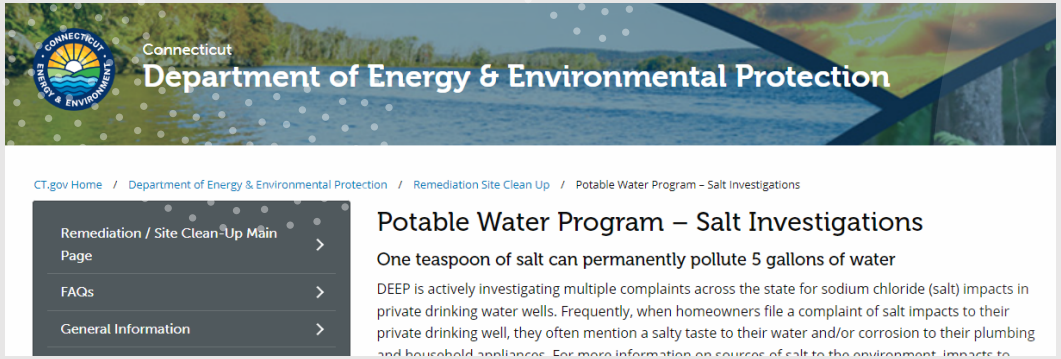
Current Known State-wide Salt Impacts

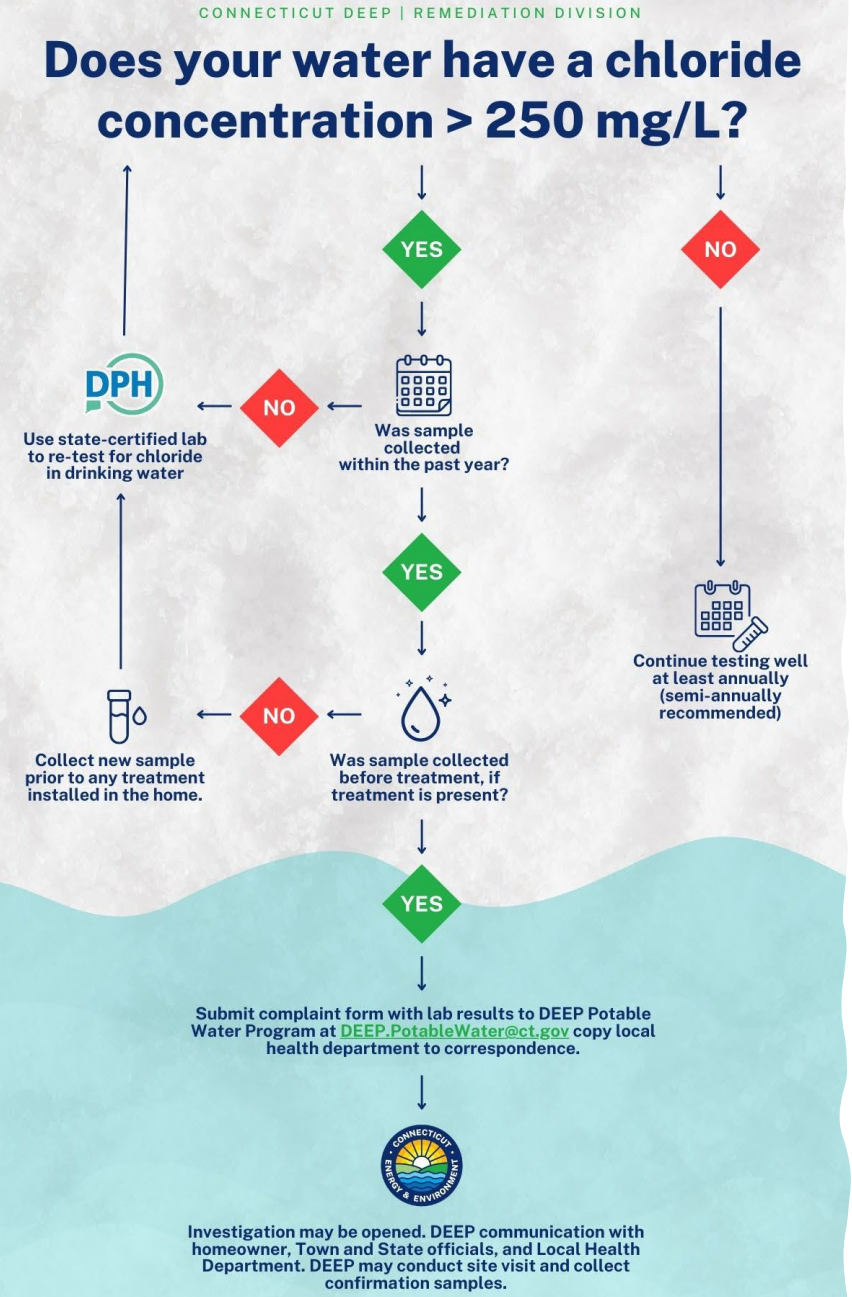
- Tracking
  - Includes cases addressed by: DOT, Local Health Depts, & DEEP
- Current Impacts
  - 217 total known as of October 2023
- Latest Complaints
  - Drop in reporting
  - 6 new cases in 2023
  - Less testing?
- Criteria
  - Cl > 250 mg/L – CT DPH MCL
  - Na > 100 mg/L – CT DPH Guidance Level



DEEP Salt Investigation Page is Live!

- Webpage dedicated to Remediation Division's **investigations of salt impacts to private wells**
- **FAQ Page**
- **Story Map**





NEW COMPLAINT FILING PROCESS

- Require drinking water data from within past year from homeowners
- Data must indicate exceedance of *either* 100 mg/L for sodium and/or 250 mg/L for chloride
- Samples must be collected from prior to any treatment systems treating the drinking water in the home
- If data meets above qualifications, homeowner may submit complaint form to DEEP
- DEEP begins communicating with either Municipality or DOT
- **Found on DEEP Road Salt Page: Salt Investigations (ct.gov)**
- Questions can be addressed to DEEP.PotableWater@ct.gov

WHAT RESOURCES CAN DEEP PROVIDE?

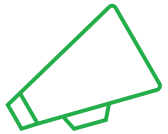
Can Provide

- Technical assistance with understanding the nature of salt in the environment
- Review of technical data
- Communications with environmental professionals

Can't Provide

- Funding – funding for the "Potable Water Program" was removed by the legislature in the mid-2010s
- Bottled water – funding was removed
  - **DAS contract is available to municipalities (18PSX0325)**
- Corrective Actions
  - **DEEP can advise on potential corrective actions, but it is solely up the Responsible Party to propose an action for DEEP's review and approval**

WHAT CAN MUNICIPALITIES DO TO ADDRESS SALT IMPACTS?



Communicate

- **Open dialogue with residents and DEEP will go a long, long way to keeping residents comforted with the process**
- **It may be beneficial for Towns to establish plans for communicating with their constituents**

Establish timelines

- **Creating a general timeline will be key to setting expectations with homeowners**
- **These are not easy cases to resolve; they take time and require patience**

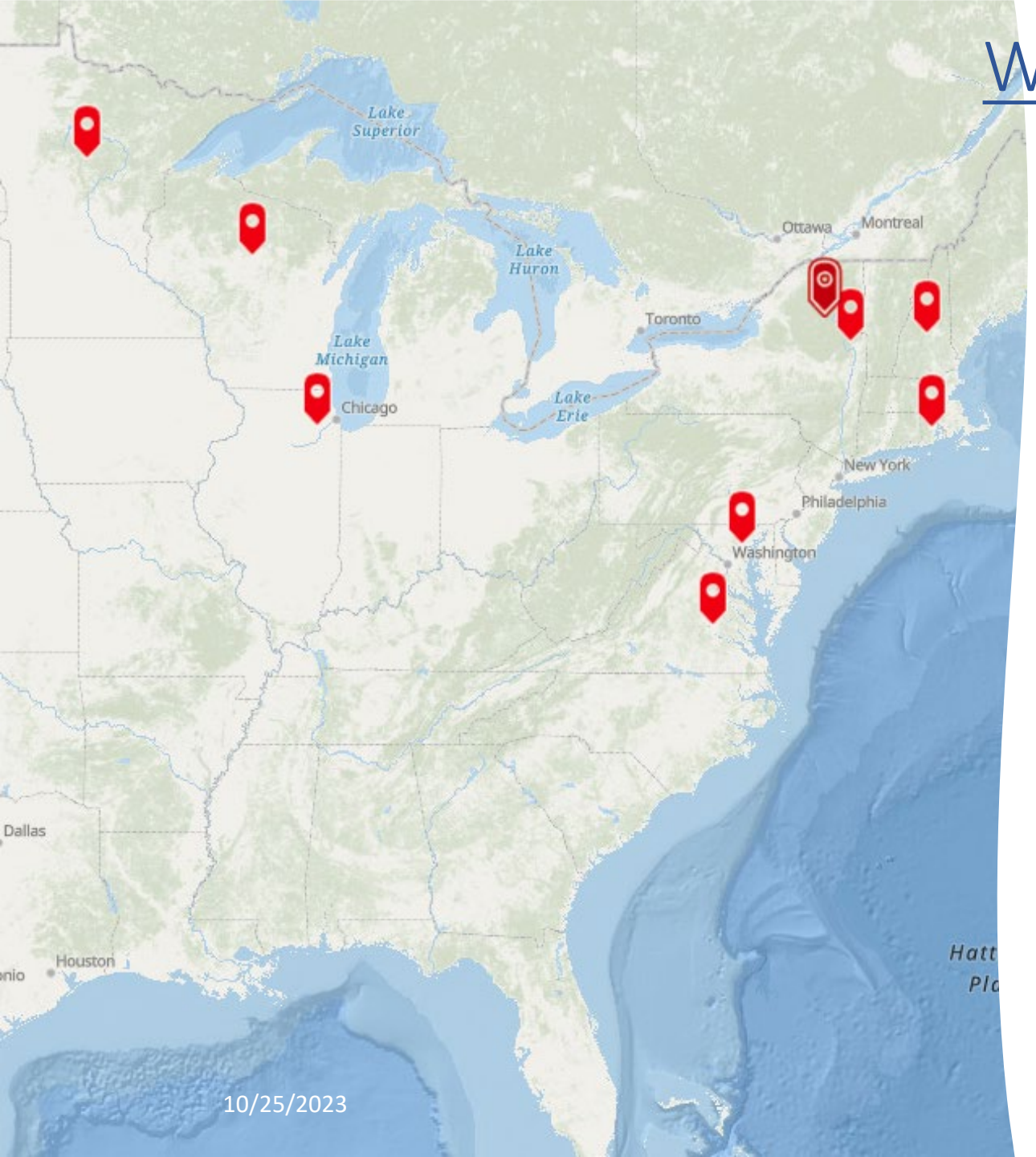
Speak to environmental professionals for guidance

- **Consultants are familiar with the nuances of groundwater and evaluating sources of contamination**

Evaluate Winter Maintenance Practices

- **Consider GSP training if not already completed**
- **Calibrate equipment every year**
- **Record salt usages**
- **Create a winter maintenance plan**

WHAT ARE OTHER STATES DOING?



10/25/2023

NEW HAMPSHIRE DEPARTMENT OF Environmental Services — NH Road Salt Reduction

LGA Lake George Association — We Protect Lake George, Together. — NY Lake George Association Salt Summit

Let's be Salt Wise! — WI Metropolitan Sewerage District

MINNESOTA POLLUTION CONTROL AGENCY — MN Pollution Control Authority

SALT SMART COLLABORATIVE — IL Salt Smart Collaborative

Maryland Department of the Environment — MD Winter Salts

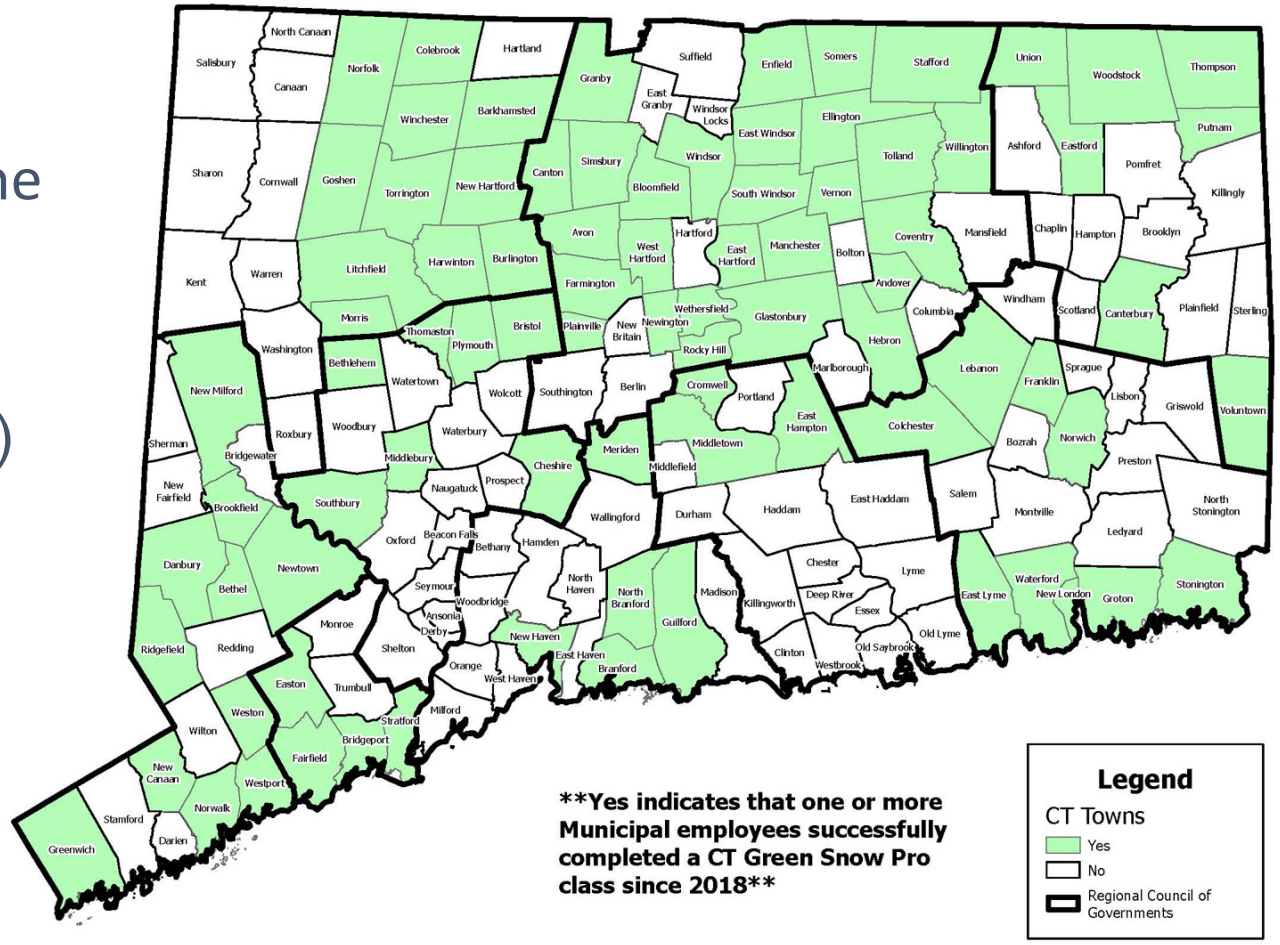
DEQ Virginia Department of Environmental Quality — Northern VA Salt Management Strategy

RI DOT — RI Winter Driving & Winter Storm Operations

Connecticut Department of Energy & Environmental Protection

CT GREEN SNOW PRO TRAINING PROGRAM

- UCONN T2 Center held 20 in-person sessions in 15 different towns across the state and 3 virtual sessions.
- Over 440 total attendees including:
- 84 municipalities (an increase from 58)
- CTDOT
- 28 private contractors



Updated as of May 12, 2023

DEEP Outreach

DEEP will be hosting a panel at November CT Conference of Municipalities (CCM) Convention with representatives from:

- DOT Environmental Compliance Section
- UCONN T2 Center
- DPH Private Well Program

Questions?

Please send questions to:
DEEP.PotableWater@ct.gov

Remediation Division Scanning Project

Joanna Burnham, Environmental Analyst, Remediation Division

David Madsen, ITA 3, DAS, Bureau of Information Technology Solutions

Remediation Division Update

- ✓Complete with all boxing of files by November
- ✓Packed 5000+ boxes to date

- What is left…Files that are still with the vendor for processing and files that remain in our quality review que
  - Only QA a % of the 5,000 boxes so if you find errors, please send me an email with the site address and nature of the issue

➢Will send a Listserv message when all files have been uploaded

DEEP Paper Records Digitizing

Total records in FN as of 6/2023 = 1,634,935

Current Scanning Project						
Agency Program	Estimated Boxes Remaining	Estimated pages remaining	Page completed	Total Project Esitmate Pages	Total estimated documents	Project Completion Target
Remedaiton	600	1,500,000	17,639,474	19,139,474	121,087	Jan 2024

Next Scanning Application				2024			
Agency Program	Estimated Boxes	Estimated pages	Total Project Time	Q1	Q2	Q3	Q4
LUST	369	922,500	10 months	Andover - East Hartford	East Haven - Milford	Monroe - Sherman	Simsbury - Woodstock
PCB	394	985,000	10 months		Scanning Done by Site not Town		

Files on the Public Portal

How do I find my files???

Got to our Webpage for updates and helpful information on how to search for your records

Scanning Project Progress

Scanning-Project-PP-pdf.pdf

Well Completion Reports

Dept of Consumer Protection has well completion reports on their web page from 1970-present.

Statewide Well Drilling Reports, 1970 - Present

DEEP also had copies in our public file room which we also scanned dating back to 1950's in most cases.

So how do I find those?

CT DEEP Document eSearch

Program: Enter in Other Remediation Program

Town: Enter the town you are interested in

Address: enter the name of town you are interested in

Refine Search Criteria

Agency Program	Other Remediation Program	Entity Name	Entity Name
Town	Andover	Street Address	andover
Agency ID	Agency ID	Document Type	Please Select Document Type
File Type	Please Select File Type	Subject(s)	Subject(s)
From Date	mm/dd/yyyy	To Date	mm/dd/yyyy

Reset Submit

The DEEP Document Online Search Portal includes a collection of documents electronically produced or digitally scanned by the Agency. The portal is searchable by a variety of fields.

Note: At the current time, there are a limited number of documents available through the Search Portal. Please review More Information and FAQs for a list of the currently available Agency program documents, field definitions, and updates.

For the best experience use Chrome or Firefox.

Refine Search Criteria

Display Per Page: 25 | Result Columns | Export

Town	Entity Name	DEEP Program	Document Name	Subject(s)	Street Address	Agency ID	File Type	Date	
Andover		Other Remediation Program	Well Completion 2015-2019	DREM004031	Andover Town Files multiple addresses	Ref ID: 15115	Written Text		View
Andover		Other Remediation Program	Well Completion 2010-2014	DREM004031	Andover Town Files multiple addresses	Ref ID: 15115	Written Text		View
Andover		Other Remediation Program	Well Completion 2005-2009	DREM004031	Andover Town Files multiple addresses	Ref ID: 15115	Written Text		View
Andover		Other Remediation Program	Well Completion 2000-2004	DREM004031	Andover Town Files multiple addresses	Ref ID: 15115	Written Text		View
Andover		Other Remediation Program	Well Completion 1995-1999	DREM004031	Andover Town Files multiple addresses	Ref ID: 15115	Written Text		View
Andover		Other Remediation Program	Well Completion 1985-1989	DREM004031	Andover Town Files multiple addresses	Ref ID: 15115	Written Text		View
Andover		Other Remediation Program	Well Completion 1980-1984	DREM004031	Andover Town Files multiple addresses	Ref ID: 15115	Written Text		View

We need your HELP to make this work!
Don't want to do this again 10 Years from now!

#1- Use the transmittal Forms: They are there to help expedite review of documents

Remediation Forms (ct.gov)

Including the **SEH status** update form- this can be used instead of writing formal report. If it is a LUST site please let staff know if you sent in the update to LUST so we can keep track of the hazard, but please use the FORM!

#2 -Attach the latest Electronic Transmittal Cover Sheet (ETF) to the Front of your document

Transmittal of Documents (ct.gov)

Please make sure you fill it out your contact information and email incase we have questions

#3 Send as much as you can electronically through the SFT.ct.gov website!

If it is not on the ETF list that is ok! You can still send it in!

If there is a permit or other action that needs to go through our Central Processing Unit first, please plan-ahead and get that into them ASAP. We need to wait for their go ahead before our review and processing can begin.

Questions or Comments?

Please type your Questions into CHAT

If we need further clarification, we may take you off mute to speak

www.ct.gov/deep/remediationroundtable

QA Workgroup Updates

RCPs, guidance docs, & more

October 24, 2023

Roni Tanguay, Environmental Analyst

Overview

- Public Comment Period
- Finalizing the RCPs
- Other QA Updates
- Training Opportunities
- Questions?

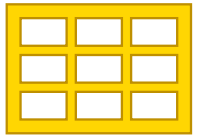
Public Comment Period

- Public Comment Period was closed June 16, 2023
- Received 141 comments, primarily from laboratory community
  - Thanks for the feedback!
- RCP Update Workgroup is working through the comments
- Important notes
  - RCPs are not analytical methods, they are guidance documents referencing analytical methods
  - RCPs are meant as tools for both analytical professionals and data users (i.e., consultants) so certain changes were made dependent on what is needed for regulatory purposes and/or the intended purpose of the data

Finalizing the RCPs

RCP Update workgroup will continue to review & prepare responses to comments

Any revisions to the RCPs the workgroup finds necessary will be noted and made to the final versions



A table of the comments, responses, and revisions will be made available to the public on the DEEP QA/QC webpage

Final versions of the updated RCPs will be posted to the DEEP QA/QC webpage

Announcement will be sent through Roundtable ListServ

Goal to complete by end of calendar year

Other QA Updates

Workgroup Expanded

- More consultants, lab professionals, and data validation specialists have joined to work on next round of guidance document updates

RCP Guidance Document

- Language updated to agree with RCP updates
- Forms updated to improve functionality

Data Quality Assurance/Data Useability Guidance Document

- Language update to agree with RCP updates
- Worksheets update for improved functionality
- Reference tables updated
- Certain reference tables removed and converted to stand alone assessment tools

Future QA Training Opportunities

RCP Training

- New Professionals
  - What are the RCPs?
- Updates to the RCPs
  - What has changed?
  - What is the same?

DQA/DUE Training

- Reviewing the Lab Alphabet Soup (acronyms)
- Evaluation Lab Quality Control parameters
- Evaluation data quality for various purposes
- And more!

Questions?

Please send questions to:
Veronica.Tanguay@ct.gov

PFAS Action Plan Update

Remediation Roundtable

Meghan Lally, PFAS Lead/Environmental Analyst III, CT DEEP Remediation Division

October 24, 2023

PRESENTATION OVERVIEW

Find the PFAS!

1. Legislative Update
2. PFAS Criteria Development
3. DEEP Program Updates
4. Website/Form Updates
5. Looking towards 2024…

PFAS LEGISLATIVE UPDATE – END OF 2023 SESSION SUMMARY

SB 100/PA 23-74 passes

- **Establishes a PFAS Testing Account for municipalities**
- **Unfunded**

Biennial Budget – FY24/25 $3M/$2M for DEEP

- **Sampling for pollution from PFAS**
- **Potable water provision**
- **Remedial action to address such pollution**
- **AFFF take-back program – e.g., regional trailer replacements and green foam acquisitions**

$3M to DESPP for FY24 for municipal AFFF removal/disposal reimbursement

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PFAS Criteria Development

PFAS CRITERIA DEVELOPMENT

Additional Polluting Substance (APS) Criteria

- Draft Direct Exposure Criteria (DEC), Pollutant Mobility Criteria (PMC), and Groundwater Protection Criteria (GWPC) for 10 individual PFAS are calculated and supporting edits to the Technical Support Document (TSD) are underway.
- Surface Water Protection Criteria (SWPC) also in development.
- Will require internal review/approval before can finalize and share with LEP community.

PFAS Program Updates

TOXICS IN PACKAGING LAW

Public Act 21-191 updated Connecticut's Toxics in Packaging Law (Section 22a-255g-m of the Connecticut General Statutes (CGS):

*As soon as feasible, but not later than December 31, 2023, no **food package** to which **PFAS** has been **intentionally introduced** during manufacturing or distribution in any amount shall be offered for sale or for promotional purposes in this state by its manufacturer or distributor.*

Questions:
Tom Metzner at 860-424-3242 or tom.metzner@ct.gov.

https://portal.ct.gov/DEEP/P2/Industry/Toxics-in-Packaging-Legislation

Food packaging - any package or packaging component that is applied to or in direct contact with any food or beverage.

PFAS - all members of the class of fluorinated organic chemicals containing at least one fully fluorinated carbon atom.

Intentionally introduced - deliberately utilized PFAS in the formulation of a package or packaging component where the continued presence of such PFAS is desired in the final package or packaging component to provide a specific characteristic, appearance or quality.

AFFF UPDATES

As of October 1, 2023...

- All remaining terminal and chemical plant AFFF **Use Extensions have EXPIRED**
- AFFF Use **Ban now includes all airports not required by FAA** to maintain AFFF*

https://portal.ct.gov/DEEP/Remediation--Site-Clean-Up/PFAS-Task-Force/Extension-of-Class-B-PFAS-Firefighting-Foam-Use

**Ban states that in the event FAA no longer mandates use of AFFF, those airports have one year to cease use of AFFF… All Part 139 airports to cease use by Sept. 13, 2024*

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AFFF UPDATES

CGS Section 22a-903a (PA 21-191) – AFFF Use Ban

NOVs are being issued for AFFF releases!

Ban interpretation note: It is not a violation to possess AFFF – violation occurs when it is released.

REMINDERS & CAUTIONS:

- **If consolidating for disposal, do NOT dispose of empty AFFF containers in regular trash!**
- Be sure fire apparatus is completely empty after draining AFFF
- Remind firefighters not to use any remaining on-board AFFF

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AFFF UPDATES

- **DESPP $3M FY24 funds:**
  - Municipal fire apparatus decontamination/conversion and AFFF disposal
  - Confirmation that **Fire boats** and **PRO/paks** are eligible
  - Details on reimbursement program pending from DESPP

PRIVATE DRINKING WATER WELL TESTING UPDATES

- **Resampling** select sites to evaluate the safety of private drinking water wells **relative to new DWALs**
- Coordinating with DPH on **UCMR5 results reporting; evaluating** private wells near public supplies with elevated PFAS detections.
- Assessing the need to sample **DEEP-owned wells** (e.g., at state parks)


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PRIVATE DRINKING WATER WELL TESTING

Updated DEEP Guidance:

Use Method 533 for potable water analysis

- Includes all 10 DWALs
- Allows for longer holding time to extraction
- Analyte list includes fluorotelomers – better for assessing AFFF impacts

***If previously used EPA 537.1 and NEtFOSAA, NMeFOSAA, PFTA, or PFTrDA were detected, consider running both methods for future samples; otherwise, paired analysis not required.*

EPA United States Environmental Protection Agency

EPA Analytical Methods for PFAS in Drinking Water

EPA's new validated Method 533 focuses on "short chain" per- and polyfluoroalkyl substances (PFAS) (i.e., those with carbon chain lengths of 4 to 12). Method 533 complements EPA Method 537.1 (published November 2018) and can be used to test for 11 additional PFAS. Using both methods, a total of 29 unique PFAS can be effectively measured in drinking water.

Analyte	Abbreviation	CASRN	Method 533	Method 537.1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11Cl-PF3OUdS	763051-92-9	x	x
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acd	9Cl-PF3ONS	756426-58-1	x	x
4,8-Dioxa-3H-perfluorononanoic acid	ADONA	919005-14-4	x	x
Hexafluoropropylene oxide dimer acid	HFPO-DA	13252-13-6	x	x
Perfluorobutanesulfonic acid	PFBS	375-73-5	x	x
Perfluorodecanoic acid	PFDA	335-76-2	x	x
Perfluorododecanoic acid	PFDoA	307-55-1	x	x
Perfluoroheptanoic acid	PFHpA	375-85-9	x	x
Perfluorohexanoic acid	PFHxA	307-24-4	x	x
Perfluorohexanesulfonic acid	PFHxS	355-46-4	x	x
Perfluorononanoic acid	PFNA	375-95-1	x	x
Perfluorooctanoic acid	PFOA	335-67-1	x	x
Perfluorooctanesulfonic acid	PFOS	1763-23-1	x	x
Perfluoroundecanoic acid	PFUnA	2058-94-8	x	x
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid	4:2FTS	757124-72-4	x	
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	6:2FTS	27619-97-2	x	
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid	8:2FTS	39108-34-4	x	
Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	151772-58-6	x	
Perfluorobutanoic acid	PFBA	375-22-4	x	
Perfluoro(2-ethoxyethane)sulfonic acid	PFEESA	113507-82-7	x	
Perfluoroheptanesulfonic acid	PFHpS	375-92-8	x	
Perfluoro-4-methoxybutanoic acid	PFMBA	863090-89-5	x	
Perfluoro-3-methoxypropanoic acid	PFMPA	377-73-1	x	
Perfluoropentanoic acid	PFPeA	2706-90-3	x	
Perfluoropentanesulfonic acid	PFPeS	2706-91-4	x	
N-ethyl perfluorooctanesulfonamidoacetic acid	NEtFOSAA	2991-50-6		x
N-methyl perfluorooctanesulfonamidoacetic acid	NMeFOSAA	2355-31-9		x
Perfluorotetradecanoic acid	PFTA	376-06-7		x
Perfluorotridecanoic acid	PFTrDA	72629-94-8		x

Office of Water (MS-140) EPA 815-B-19-021 December 2019

PERMITTING PROGRAMS REQUIRING PFAS MONITORING

Permits with PFAS monitoring requirements are being issued!

- Pretreatment permits
- SIU wastewater discharge permits
- Stewardship permits
- Underground injection control permits

Water Permitting & Enforcement Division recently issued their NPDES and Pretreatment PFAS Roadmap.

Website/Form Updates

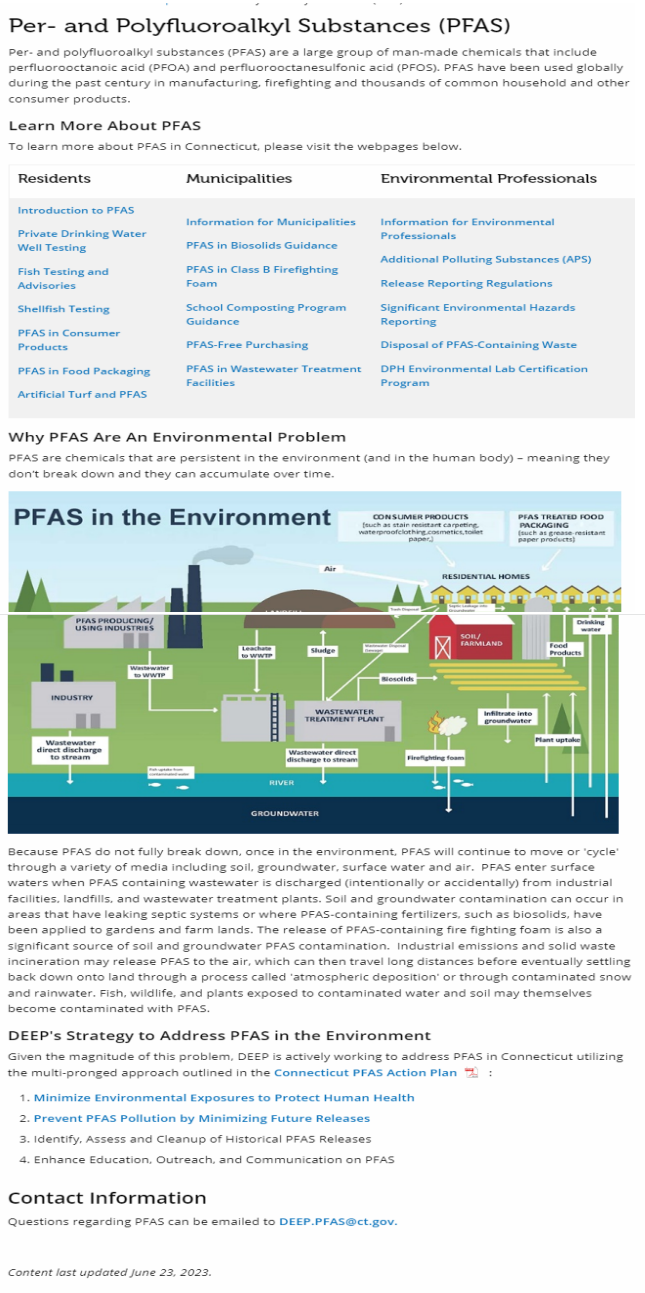
DEEP PFAS WEBSITE UPDATES

NEW WEB CONTENT:

- PFAS Education, Outreach and Communication
  - Professional Networking and Information Sharing – all Remediation Roundtable PFAS presentations posted here
- PFAS-Related Academic Collaborations
  - Work in progress… Other CT-based researchers?

UPDATED WEB CONTENT:

- PFAS-Containing Fire Fighting Foam Ban
  - Federally Required Exemptions at Airports and Military Installations
  - Fluorinated Foam Use Extensions at Terminals and Chemical Plants
- PFAS Information for Environmental Professionals
  - Updated DWALs



Per- and Polyfluoroalkyl Substances (PFAS)

Per- and polyfluoroalkyl substances (PFAS) are a large group of man-made chemicals that include perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). PFAS have been used globally during the past century in manufacturing, firefighting and thousands of common household and other consumer products.

Learn More About PFAS

To learn more about PFAS in Connecticut, please visit the webpages below.

Residents	Municipalities	Environmental Professionals
Introduction to PFAS	Information for Municipalities	Information for Environmental Professionals
Private Drinking Water Well Testing	PFAS in Biosolids Guidance	Additional Polluting Substances (APS)
Fish Testing and Advisories	PFAS in Class B Firefighting Foam	Release Reporting Regulations
Shellfish Testing	School Composting Program Guidance	Significant Environmental Hazards Reporting
PFAS in Consumer Products	PFAS-Free Purchasing	Disposal of PFAS-Containing Waste
PFAS in Food Packaging	PFAS in Wastewater Treatment Facilities	DPH Environmental Lab Certification Program
Artificial Turf and PFAS		

Why PFAS Are An Environmental Problem

PFAS are chemicals that are persistent in the environment (and in the human body) – meaning they don't break down and they can accumulate over time.

Because PFAS do not fully break down, once in the environment, PFAS will continue to move or 'cycle' through a variety of media including soil, groundwater, surface water and air. PFAS enter surface waters when PFAS containing wastewater is discharged (intentionally or accidentally) from industrial facilities, landfills, and wastewater treatment plants. Soil and groundwater contamination can occur in areas that have leaking septic systems or where PFAS-containing fertilizers, such as biosolids, have been applied to gardens and farm lands. The release of PFAS-containing fire fighting foam is also a significant source of soil and groundwater PFAS contamination. Industrial emissions and solid waste incineration may release PFAS to the air, which can then travel long distances before eventually settling back down onto land through a process called 'atmospheric deposition' or through contaminated snow and rainwater. Fish, wildlife, and plants exposed to contaminated water and soil may themselves become contaminated with PFAS.

DEEP's Strategy to Address PFAS in the Environment

Given the magnitude of this problem, DEEP is actively working to address PFAS in Connecticut utilizing the multi-pronged approach outlined in the Connecticut PFAS Action Plan :

1. Minimize Environmental Exposures to Protect Human Health
2. Prevent PFAS Pollution by Minimizing Future Releases
3. Identify, Assess and Cleanup of Historical PFAS Releases
4. Enhance Education, Outreach, and Communication on PFAS

Contact Information

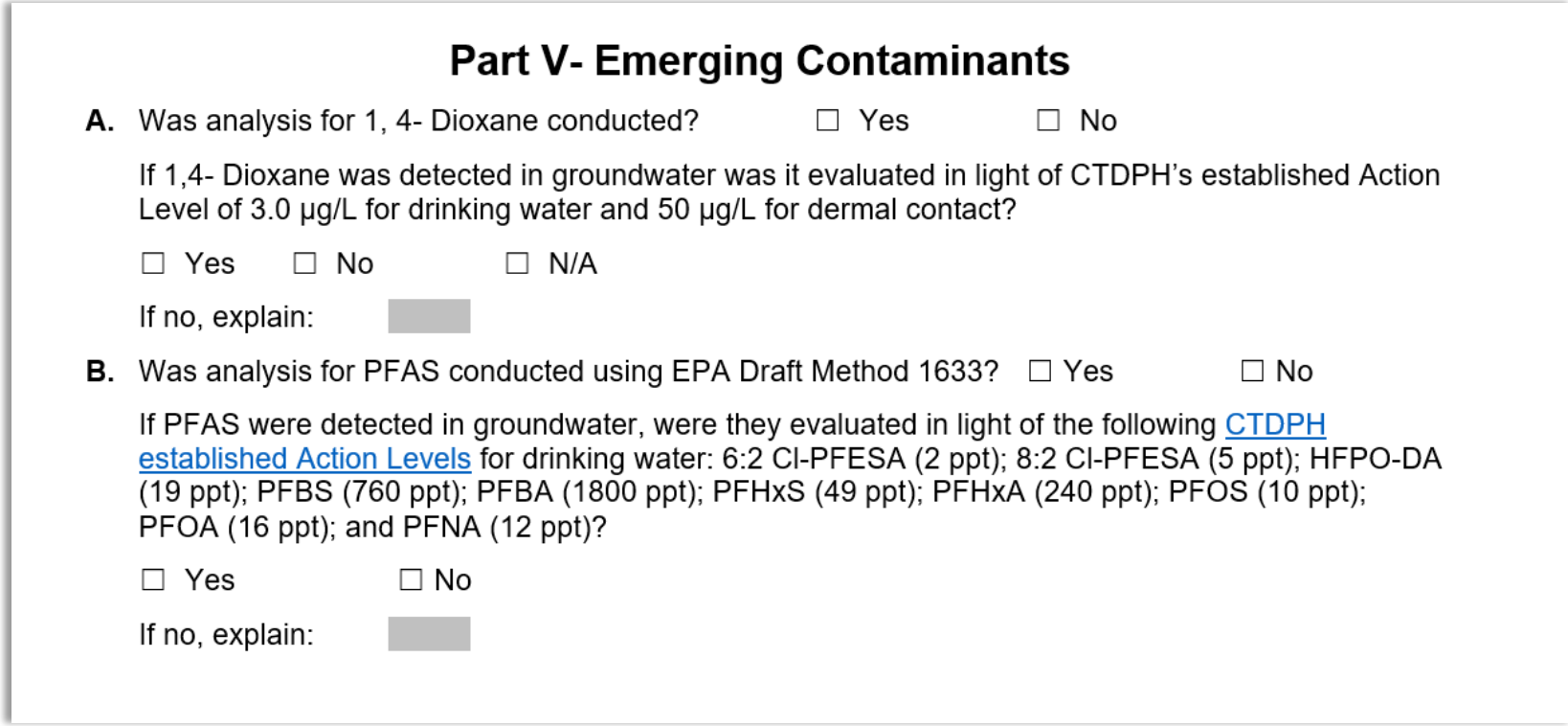
Questions regarding PFAS can be emailed to DEEP.PFAS@ct.gov.

Content last updated June 23, 2023.

LANDFILL GROUNDWATER MONITORING STATUS UPDATE FORM

Updated 8/28/23

- Encourage use of [Draft] Method 1633
  - 537.1 modified still accepted for time being
- Updated to include all 10 DPH DWALs



Part V- Emerging Contaminants

A. Was analysis for 1, 4- Dioxane conducted? ☐ Yes ☐ No

If 1,4- Dioxane was detected in groundwater was it evaluated in light of CTDPH's established Action Level of 3.0 µg/L for drinking water and 50 µg/L for dermal contact?

☐ Yes ☐ No ☐ N/A

If no, explain:

B. Was analysis for PFAS conducted using EPA Draft Method 1633? ☐ Yes ☐ No

If PFAS were detected in groundwater, were they evaluated in light of the following CTDPH established Action Levels for drinking water: 6:2 Cl-PFESA (2 ppt); 8:2 Cl-PFESA (5 ppt); HFPO-DA (19 ppt); PFBS (760 ppt); PFBA (1800 ppt); PFHxS (49 ppt); PFHxA (240 ppt); PFOS (10 ppt); PFOA (16 ppt); and PFNA (12 ppt)?

☐ Yes ☐ No

If no, explain:

Form Link: https://portal.ct.gov/-/media/DEEP/site_clean_up/sites/REM-LF-MON-RF.docx

ECAF UPDATE
"2023 VERSION 2.1"

Part IV: Site History, #6 Emerging Contaminants Consideration

- May 2023 – announced preliminary edits
- June-Sept 2023 – Worked with EPOC to address concerns and clarify questions raised
- Reminder: Typically, will only use for Property Transfer Program and Voluntary Program.

ECAF Form, rev. 10/13/23

Final Revision
Chemical **production**/manufacturing (PFAS & 1,4-Dioxane)
Production, industrial/commercial application, and/or bulk storage of coatings, waxes, paints, varnishes, inks, dyes, sealants, lubricants, adhesives, resins, and oil/water repellant coatings and finishes (PFAS & 1,4-Dioxane)
Production, use, and/or storage of institutional cleaners, floor finishes, sealers, and/or waxes. (PFAS & 1,4-Dioxane)
Dry cleaning, including non-PCE systems (PFAS)
Manufacturing of medical implants, devices, fabrics, equipment and supplies, including X-ray film (PFAS)
Industrial/commercial photography, lithography, diagnostic image processing, film production and processing (PFAS & 1,4-Dioxane)
Production, industrial or commercial use, and/or storage of antifreeze, including aircraft deicing and vehicle repair/maintenance (1,4-Dioxane)
Production, industrial or commercial use, and/or storage of automotive fluids including brake fluids, brake cleaning fluids, loosening fluids, and rust removers. (1,4-Dioxane)
Manufacturing ~~and use~~ of pesticides and fertilizers (PFAS & 1,4-Dioxane)

2024 Planning

ANTICIPATED EPA ACTIONS

By December 31, 2023

- ❑ Final PFAS destruction and disposal guidance
- ❑ Finalize analytical methods:
  - Method 1633 – 40 PFAS, multiple matrices
  - OTM 50 – 30 PFAS, air method
- ❑ Final drinking water MCLs, monitoring and notification requirements
- ❑ Finalize aquatic life criteria?

After January 1, 2024

- ❑ RCRA hazardous constituent designation / addition to Appendix 8
- ❑ CERCLA hazardous substance designation (Feb?)
- ❑ Finalize additional methods?
  - Method 1621 (AOF)
  - OTM 55 (Air)
- ❑ PFAS effluent limit guidelines (ELGs)
- ❑ TSCA reporting (Oct. 2024)

2024+ ACTION PLAN THOUGHTS …

WHAT'S LEFT TO TACKLE?

1. Clarify the PFAS Regulatory Framework:

- Establish **standards and discharge limits** for air and water
- Establish **cleanup standards** for soil, groundwater, surface water, and aquatic biota.

2. Expand Data Collection Efforts:

- Determine **ambient** PFAS levels (soil, groundwater, surface water, air, precipitation…)
- Sample sites where PFAS are likely to have been released (**airports, fire departments and training areas, landfills**)
- Evaluate PFAS levels in **biosolids, compost, and agricultural soils**
- Assess PFAS levels in **fish and shellfish**

3. Collaborate and Share Available Information:

- Establish a **DEEP PFAS database**
- Support municipal risk assessment by developing a **public map application** to share vetted, nonconfidential data
- Establish one or more **academic roundtables** to share PFAS research and encourage new research that addresses needs

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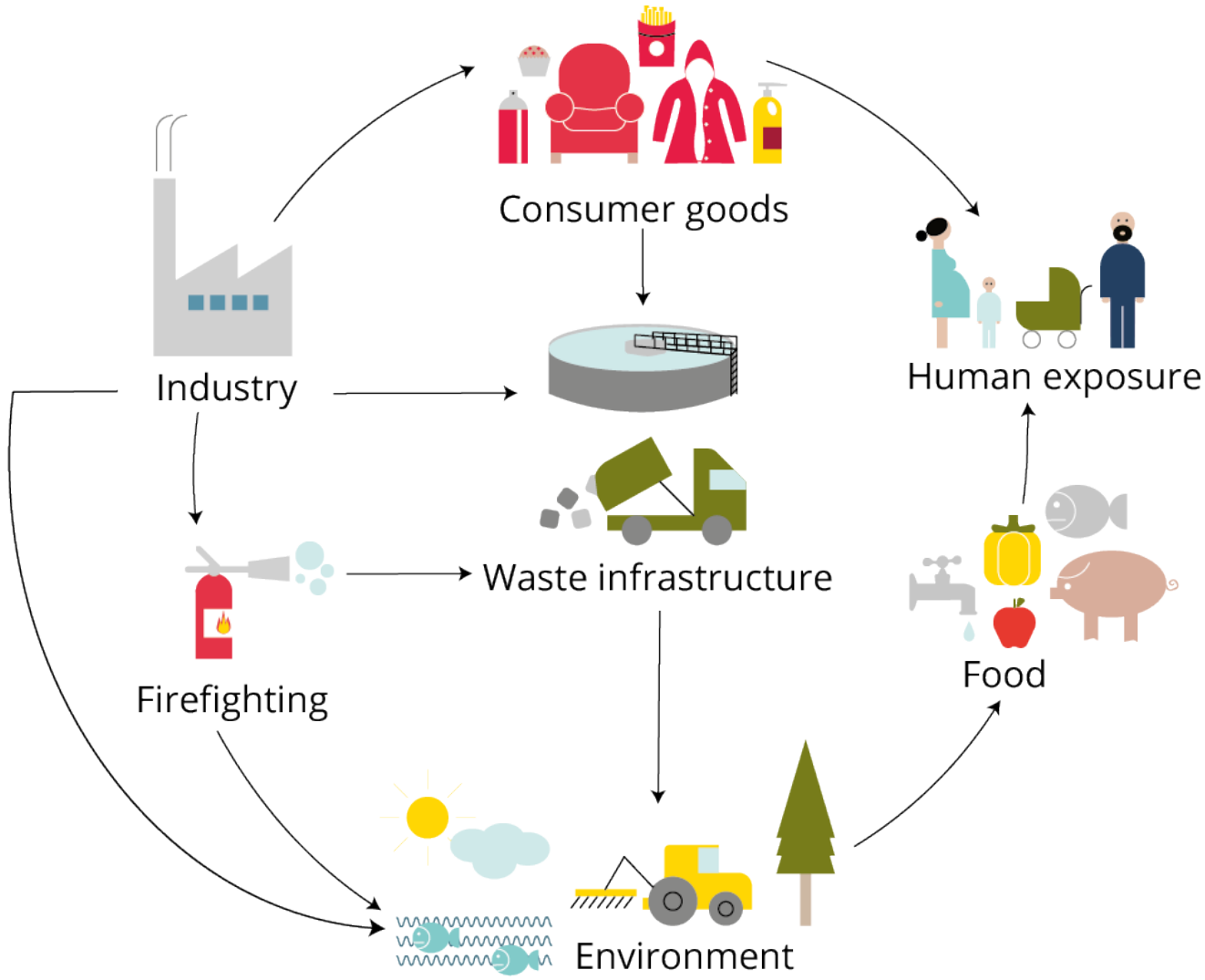
DEEP.PFAS@ct.gov

DEEP PFAS Webpage



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Remediation Roundtable

E-mail: DEEP.remediationroundtable@ct.gov

Web: www.ct.gov/deep/remediationroundtable


Remediation Roundtable
Next meeting March 26, 2024