Remediation Roundtable

March 26, 2024

Remediation Roundtable Agenda

- Meet our New Deputy Commissioner
- Announcements
- Website Updates
- Updates:
  - Release-Based Clean Up Program Regulation Development
  - PFAS Action Plan
  - Brownfield Program Update
- Presentations:
  - Reasonable Confidence Protocols
  - CT's Environmental Justice Law: an update and rulemaking process

Deputy Commissioner Emma Cimino - Environmental Quality

Emma Cimino is the Deputy Commissioner of Environmental Quality at the Connecticut Department of Energy and Environmental Protection (DEEP). She was appointed to this position in November 2023. As Deputy Commissioner, Emma provides leadership for the three bureaus within DEEP's EQ Branch - Air Management, Water Protection and Land Reuse (WPLR), and Materials Management and Compliance Assurance (MMCA).

Emma joined DEEP from the office of U.S. Senator Chris Murphy, where she led the Senator's work on energy, environment, and infrastructure issues, including work on the Bipartisan Infrastructure Law and the Inflation Reduction Act. Prior to the Senate, Emma worked as a Senior Policy Advisor at the National Governor's Association. She began her state service working for former Governor Dan Malloy, serving as a Director of Government Affairs. Emma also served as a Peace Corps Volunteer from 2009-2011, during which she taught English in the Philippines.

Announcements

Icelandic Lava

New Staff Member:

Peter Lawler has joined the Northwest District

New Role:

Amanda Limacher has taken over for Mark Lewis as the Division Brownfields Coordinator

Announcements

Scanning and uploading of all Remediation Division Records from the record center is complete!

- Please remember to continue to submit documents electronically, **do not** send a duplicate hard copy
- Check out our webpage for tips and tricks on how to find what you are looking for

Announcements

LEP Exam being offered May 16, 2024

- ✓There are 24 people signed up to take the exam with 16 brand new registrants

RSR Wave 2 Training Course from 2023 available now through EPOC!!!

- EPOC - RSR Wave 2 Course Videos 2023

For License Renewals: Notices for renewals went out earlier in March and 73 licenses have been renewed to date. Deadline is June 1st!

Webpage Updates

Laboratory Quality Assurance and Quality Control Guidance

- Revised RCPs effective May 10, 2024
- Reasonable Confidence Protocols Guidance Document
- RCP Lab Analysis QAQC Certification Form
- Project Communication Form
- RCP Equivalency Demonstration Form

Release-Based Clean Up Program Regulation Development

Release-Based Working Group Meetings

Release-Based Cleanup Program Stakeholder Engagement – Draft regulations published

Webpage Updates

Licensed Environmental Professional (LEP) Application Forms

LEP Board 2024 Schedule of Meetings

Licensed Environmental Professional Program

- Approved Courses
- LEP Roster

Examples of Stewardship Permits Issued

List of Significant Environmental Hazards Reported to DEEP

State Brownfield Remediation and Liability Relief Programs

Contact Information and Other Sources of Brownfield Information

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

CONNECTICUT'S TRANSITION TO RELEASE-BASED CLEANUP

Presented by: Graham Stevens, Chief of Bureau of Water Protection and Land Reuse

Benefits of Replacing Transfer Act

Private Market Drives Investigations

Banks and buyers want to know environmental conditions of properties

Reduce the Number of DEEP controlled cleanups

DEPP will empower LEPs far more than before to clean up releases

Multi-Tier Cleanup System

Lower risk releases addressed quickly, without DEEP touchpoints

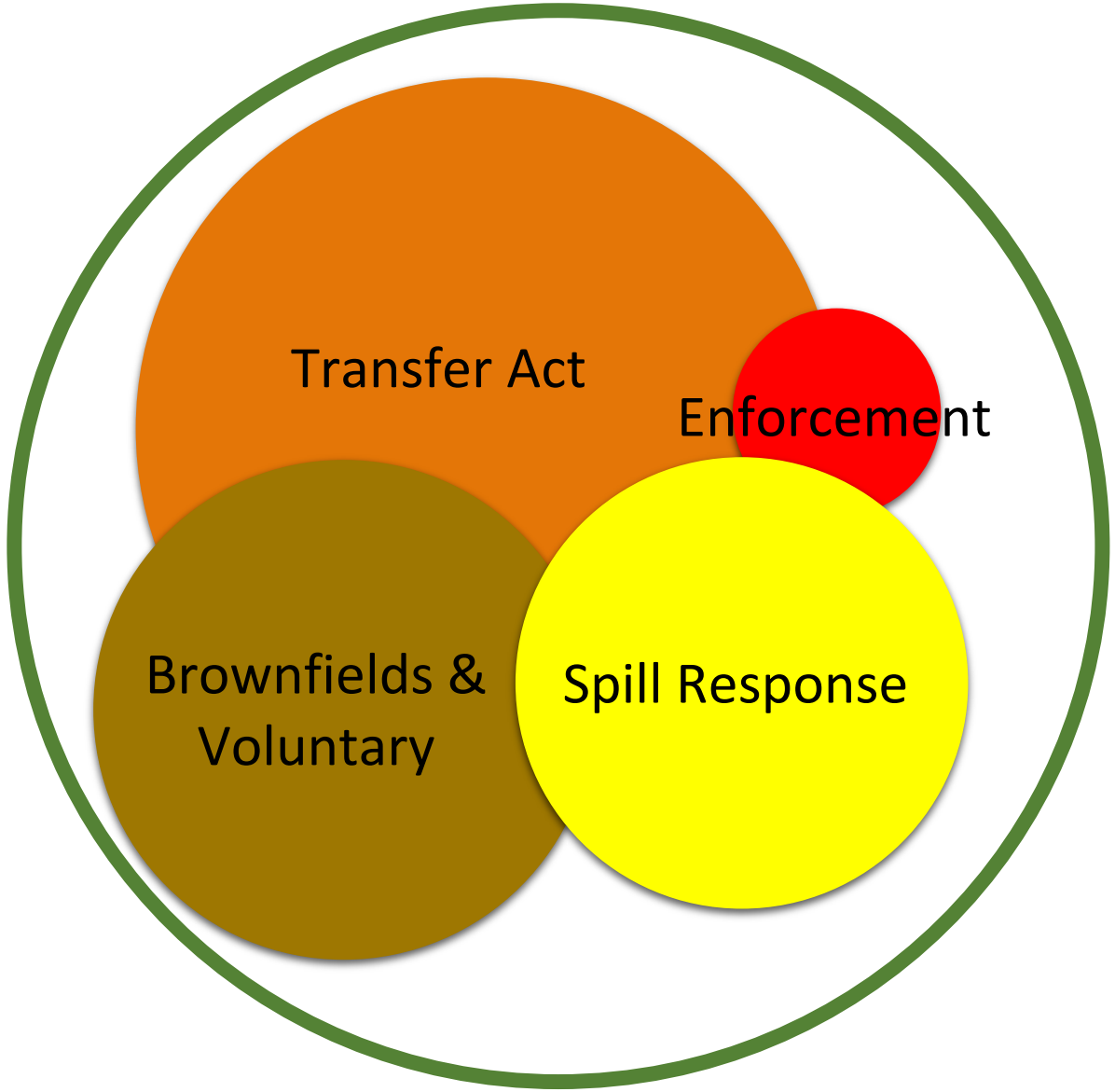
Transfer Act – Stalled Cleanups and Redevelopments

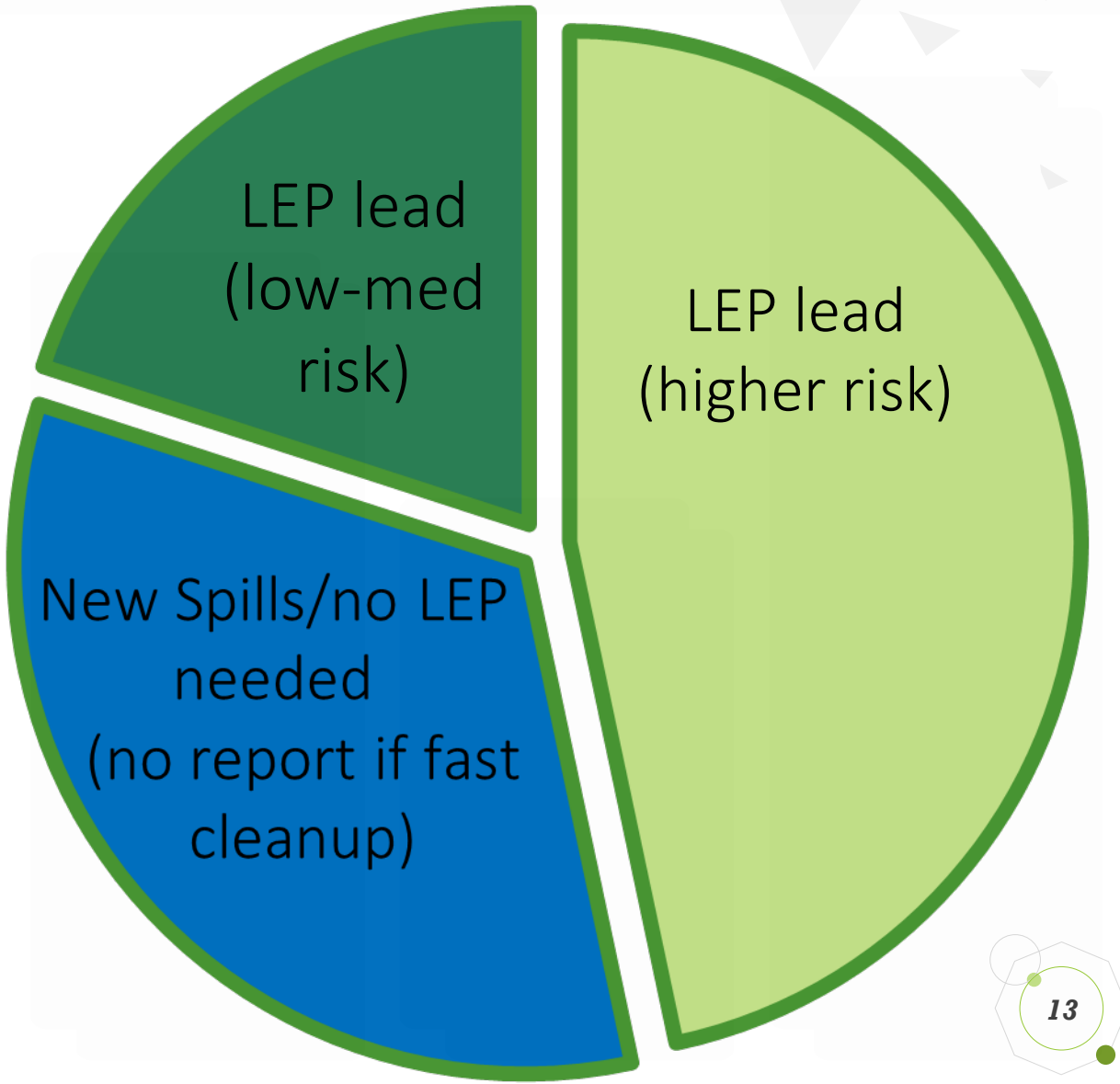
Transfer Act Universe:

# of sites (approx)	# cleanup completed (approx)	Avg yrs to cleanup (approx)	Avg *new* sites/yr (approx)
3,000	300	completed sites: 7 yrs; otherwise unlimited	200

Transfer Act stigma has left many properties behind

Scope of Cleanup Universe – Before and After





HOW ARE THE RBCRS ORGANIZED?

Sections fit into 4 general categories:

First Year

- Discovery
- Reporting
- Charcterization
- Immediate Action

Longer Term

- Tiers

Cleanup Standards

- General
- PEPs & Home Heating Fuel
- Soil
- Groundwater

Administrative

- Verifications &Certifications
- Closure documents
- Audits

Tiers Checklist

Tier 1A. DEEP Oversight	Tier 1B. LEP Oversight Receptor Risk	Tier 2. LEP Oversight Controlled Risk	Tier 3. Monitoring Oversight
Highest-risk releases. DEEP lead. FEWEST cases. Unknown risks to receptors; programmatic noncompliance. Complete closure or re-tier 2 years after Discovery.	Known risk to receptors (drinking water, vapor) must still be addressed or scoping/screening eco not completed RAP not completed Complete closure or re-tier 3 years after Discovery	Controlled risk, no receptor pathways Complete closure or re-tier 5 years after Discovery	Monitored Natural Attenuation (MNA) only Complete closure or reevaluate effectiveness of MNA 6 years after Discovery

Connecticut Release-Based Fee proposal

- Fee at time of tiering
- Higher fees for more stringent tiers

- Annual fees for releases yet to be closed
- Annual fee increases for each year tiered
- Increased fees for missing deadlines

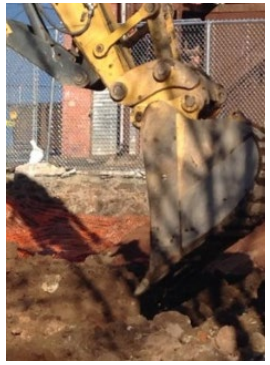
- Fee Structure Benefits:
- No fees for quick remediation (<1 year)
- Uncomplicated / easy to implement for DEEP and all parties
- About half of Mass. fees

Tier	Annual Fees
Tier 1A	$3,000
Tier 1B	$1,500
Tier 2	$1,000
Tier 3	$500

Residential Transactions

CURRENT STATE – Discovery of Historical Fuel Oil Release

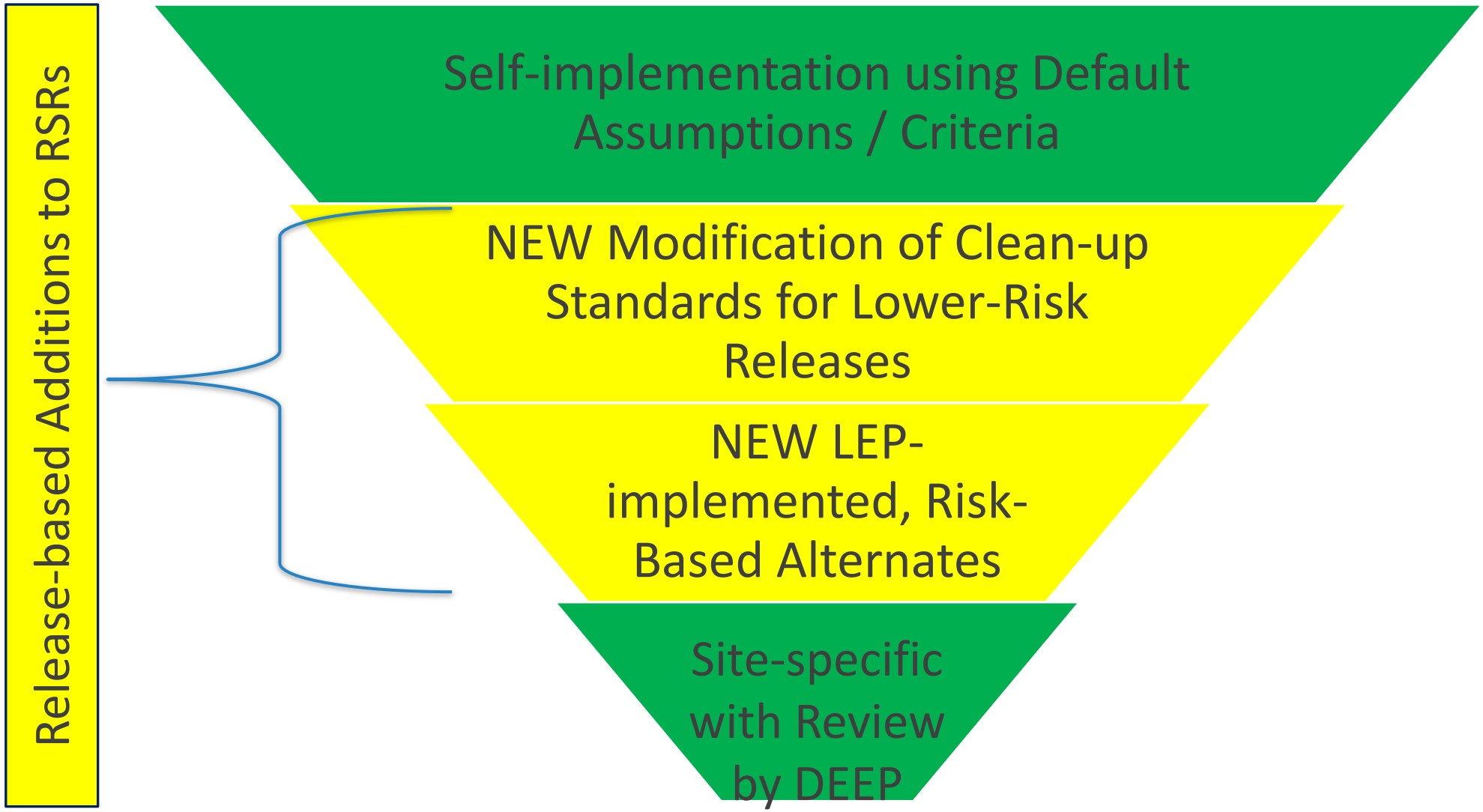
- Buyer is concerned about status of Underground Storage Tank or Above Ground Storage Tank
- Environmental investigation finds soil pollution and a "Spill Report" is sent to DEEP
- Cleanup is conducted to a level that is acceptable to "close" emergency response action
- Buyer wants approval from DEEP that liability is addressed – DEEP would require groundwater wells and at least one year of monitoring so parties have to make a decision



FUTURE STATE – Discovery of Historical Fuel Oil Release

- Buyer is concerned about status of Underground Storage Tank or Above Ground Storage Tank
- Environmental investigation finds soil pollution and a "Spill Report" is sent to DEEP
- Cleanup is conducted to a level that is acceptable to "close" emergency response action
- Permitted Environmental Professional – same person that conducts work in CURRENT STATE "Certifies" that the release is closed pursuant to new cleanup regulations – No additional action necessary

UPDATES TO CLEANUP REGULATIONS



NEW “OFF-RAMPS”

- “Walk away” background numbers for certain common, naturally-occurring metals
- Potential buyer due-diligence can usually be conducted without “discovering” releases – unlike other states like New Jersey
- No reporting of discovered historical releases if cleaned up in first year
- New, less stringent cleanup numbers for:
  - Managed multifamily residential
  - Passive Recreation
- Expedited “Permit by Rule” Approach for that doesn’t require an EUR (institutional control) for:
  - Soil under paving or concrete (parking lots, roads, building foundations)
  - “Historically impacted material” (fill typically found in urban areas)

ADDITIONS TO THE SOIL CLEANUP STANDARDS

DIRECT EXPOSURE CRITERIA

Managed Multifamily Residential DEC

A release may qualify if the parcel has more than 4 residential units and the parcel and residential units are managed by an association or professional property management company

Will require an EUR prohibiting the disturbance of soil by residents and active recreation without impervious cover

Passive Recreation Residential DEC

Can be cleaned up to the passive recreation DEC if it is:

(1) subjected to an EUR or

(2) has a passive recreation conservation easement

Examples of passive recreation include: hiking trails, bike paths, horse trails

USE OF PERMITS BY RULE

HISTORICALLY IMPACTED MATERIAL

Applicability

- Industrial/commercial sites only with confirmed presence of historically impacted material

Notification

- A form prescribed by the Commissioner to notify the Department an owner is seeking cover under the permit by rule

Requirements

- Maintain Industrial/Commercial use
- Cannot relocate historically impacted material parcel except as allowed by cleanup standards
- Notify any new owner or interest holder of the permit by rule
- Record an affidavit of facts on the land records
- Submit a closure report
- Conduct inspections every 5 years to demonstrate compliance

MANAGING SOIL BENEATH PARKING LOTS, ROADS AND BUILDINGS

Inaccessible soil at a release area is not required to be remediated to the direct exposure criteria if the soil is located beneath concrete or bituminous concrete used for parking or vehicle travel or below a building foundation.

Similar administrative requirements as the historically impacted material permit by rule

- submit document to Commissioner that verifies compliance,
- record an affidavit of facts on the land records,
- inspect every 5 years and report to the Commissioner on condition of concrete

Working Group Comments - Overview

- Maintainer
- Emergent Reportable Releases
- Characterization
- Filing Cabinet Exemption
- Special Paths
- Discovery
- Audit
- Attorneys Roles

Define "Maintainer"

- Someone who **owns** or has **long term possession and control** of a parcel on which a release is located
- No obligations under RCBRs unless and until an existing release is "**newly discovered**"

When is a “new release” an “Emergent Reportable Release”?

- Will add clarity regarding “**improved surfaces**”
- Will exclude **indoor** releases that have not reached soil
- Will add clarity regarding **secondary containment**

Full Characterization

- Adjust so characterization to "**non-detect**" is not always required
- Add guardrails to definition so guidance (now or in future) cannot impose a "non-detect" standard for all releases
- Guidance **document** in progress, concepts to be shared with Working Group

“Filing cabinet exemption”

- Clarify “data available or generated before the date when regulations are **first adopted**”
- Intent of exemption is to exclude **reports**, not just laboratory data

Special Paths for Emerging Contaminants

- Limit when a discovery of **PFAS** or **road salt** in a drinking water well or water supply is considered an SER
- Normal use of road salt that does not impact drinking water is not a release
- Further clarify when reporting is necessary for discoveries of PFAS and road salt, particularly regarding **routine sampling** of wells by homeowners and water companies
- Create **special paths**/**early exits** that recognize source of PFAS and road salt is not always known and cannot be removed

Discovery Section

- DEEP conceptually agrees with feedback and “redline” language provided by Subcommittee 1; consolidating “**actual knowledge**” and “**constructive knowledge**”
- Incorporate feedback, provided certain language adjustments may be needed to preserve intent

Audit Timelines & No Audit Letters

- Balance anticipated **resource needs** and **volume** of releases with need to create **certainty** in the marketplace
- Provide process for “no audit letters”:
  - Release **Remediation Closure Report**
  - Request for letter is made **at time of submission**
  - Payment of a small **fee** may be required
- Will look closely at audit **timelines** to see if adjustments can be made

Role of attorneys in discovery of an SER

- No intent to disturb Attorney/Client Privilege
- Clarify that attorneys' only obligations are to **notify** their clients of discovery and requirement to report

- Next Steps
- More information can be found here: https://portal.ct.gov/DEEP/Remediation--Site-Clean-Up/Comprehensive-Evaluation-and-Transformation/Release-Based-Clean-Up-Program-Regulation-Development

PFAS Action Plan Update

Remediation Roundtable

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

March 26, 2024

2023 EPA PFAS ACTIONS STILL PENDING

By December 31, 2023…

- Final PFAS destruction and disposal guidance
- Final drinking water MCLs, monitoring and notification requirements
- Finalize aquatic life criteria

PFAS criteria remain a high priority for Remediation – updates are in development.

- **Progress has slowed due to the need for criteria staff to support development of the Release-Based Cleanup Regulations.**
- **Continue to plan to shift from sum of 5 approach to criteria for individual compounds.**

CT.gov Home / Department of Energy & Environmental Protection / Remediation Site Clean Up / PFAS Information for Municipalities

- Remediation / Site Clean-Up Main Page
- FAQs
- General Information
- Forms
- Guidance Documents
- Permits
- Site Characterization
- Remediation Roundtable
- Main Menu

Search Department of Energy & Environmental Protection

by Keyword

PFAS Information for Municipalities

DEEP recognizes that municipalities will face capacity and financial challenges with respect to PFAS. To assist towns, DEEP developed the following guidance which contains PFAS information most pertinent to municipalities and links to available resources:

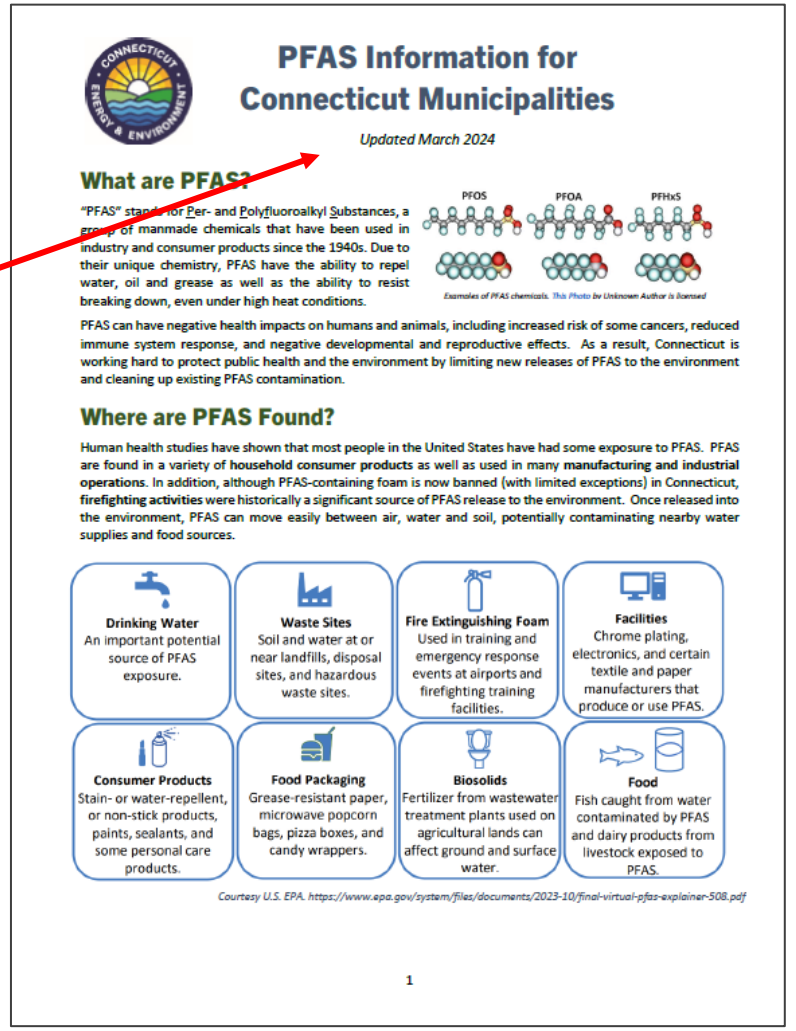
PFAS Information for Municipalities

The following actions are requirements and recommendations that municipalities can take to reduce local PFAS risk:

1. Report any PFAS releases immediately! (Required by RCSA Sec. 22a-450-2(b)(1)(K))
2. Stop using PFAS-containing Class B firefighting foam (Required by CGS Section 22a-903a)
3. Identify historic PFAS-release areas
4. Test at-risk drinking water wells
5. Procure PFAS-free cleaning products, waxes, and food service ware

Required PFAS Release Reporting

Aqueous Film Forming Foam (AFFF) and other PFAS-containing firefighting foams should never be discharged to the ground, storm drain, surface water, sanitary sewer or septic system. Any such releases must be immediately reported to DEEP. Releases can be reported to DEEP's Emergency Response Unit 24 hours a day at 866-DEP-SPIL (866-337-7745) or 860-424-3338.



PFAS Information for Connecticut Municipalities

Updated March 2024

What are PFAS?

"PFAS" stands for Per- and Polyfluoroalkyl Substances, a group of manmade chemicals that have been used in industry and consumer products since the 1940s. Due to their unique chemistry, PFAS have the ability to repel water, oil and grease as well as the ability to resist breaking down, even under high heat conditions.

PFOS PFOA PFHxS

Examples of PFAS chemicals. This Photo by Unknown Author is licensed

PFAS can have negative health impacts on humans and animals, including increased risk of some cancers, reduced immune system response, and negative developmental and reproductive effects. As a result, Connecticut is working hard to protect public health and the environment by limiting new releases of PFAS to the environment and cleaning up existing PFAS contamination.

Where are PFAS Found?

Human health studies have shown that most people in the United States have had some exposure to PFAS. PFAS are found in a variety of **household consumer products** as well as used in many **manufacturing and industrial operations**. In addition, although PFAS-containing foam is now banned (with limited exceptions) in Connecticut, **firefighting activities** were historically a significant source of PFAS release to the environment. Once released into the environment, PFAS can move easily between air, water and soil, potentially contaminating nearby water supplies and food sources.

Drinking Water An important potential source of PFAS exposure.

Waste Sites Soil and water at or near landfills, disposal sites, and hazardous waste sites.

Fire Extinguishing Foam Used in training and emergency response events at airports and firefighting training facilities.

Facilities Chrome plating, electronics, and certain textile and paper manufacturers that produce or use PFAS.

Consumer Products Stain- or water-repellent, or non-stick products, paints, sealants, and some personal care products.

Food Packaging Grease-resistant paper, microwave popcorn bags, pizza boxes, and candy wrappers.

Biosolids Fertilizer from wastewater treatment plants used on agricultural lands can affect ground and surface water.

Food Fish caught from water contaminated by PFAS and dairy products from livestock exposed to PFAS.

Courtesy U.S. EPA. https://www.epa.gov/system/files/documents/2023-10/final-virtual-pfas-explainer-508.pdf

1

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

MUNICIPAL PFAS HANDOUT- MARCH 2023 UPDATE

How Do PFAS Enter the Environment?

PFAS enter the environment as a result of human activity, often unintentionally. For example, we now know that the release of PFAS-containing firefighting foams during past training activities or emergency responses can result in PFAS contamination in soil and water decades after release. Similarly, industrial activities that generate or utilize PFAS in the processes may release PFAS through standard air emissions and wastewater discharges. Unfortunately, PFAS do not naturally break down and traditional waste management systems were not specifically designed to destroy PFAS. Therefore, once PFAS enter the environment, it is very difficult to recapture and permanently destroy them. **Preventing new releases of PFAS to the environment and cleaning up existing PFAS contamination are therefore critical to protecting public health and the environment.**

What Can Connecticut Municipalities Do?

1. Prevent Further Releases of PFAS to the Environment

STOP Use of PFAS-containing firefighting foam is against the law.

- ✓ **Immediately stop using Class B firefighting foam containing PFAS.**
  Using PFAS-containing firefighting foam, also known as 'AFFF', including in fixed fire suppression systems, is against Connecticut law (PA 21-191/CGS 22a-903a). Any release of PFAS-containing firefighting foam is subject to enforcement action at the discretion of CT DEEP. Any remaining stocks of AFFF should be properly disposed of as soon as possible.
- ✓ **Purchase PFAS-free firefighting foam for municipal uses.**
  In general, fluorine-free foams ("F3") that have been certified by GreenScreen® for Safer Chemicals or the Department of Defense (DOD) are acceptable for use in Connecticut. Municipalities may purchase replacement F3 from any vendor. Municipal fire departments can also purchase National Foam Universal F3 Green firefighting foam through Dept. of Administrative Services (DAS) contract #21PSX0028AB. Before refilling apparatus with F3, be sure to properly decontaminate the apparatus, in order to minimize PFAS contamination of the new foam. Guidance for Draining and Rinsing AFFF from Municipal Onboard Systems is available.

Releases of PFAS-containing foam and releases of PFAS-free foam from apparatus that previously held AFFF must be reported to DEEP Emergency Dispatch at 860-424-3338.

- ✓ **Use PFAS-free cleaning products in municipal buildings.**
  The Connecticut Green Cleaning program has approved use of Green Seal and UL EcoLogo certified cleaning products, many of which do not contain intentionally-added PFAS. Additional products can be found through the GreenScreen Certification products list and the U.S. EPA's Safer Choice Program.
- ✓ **Purchase PFAS-free food service ware for use in schools.**
  Food service ware includes items such as containers, bowls, plates, trays, cups, lids, napkins, and take out containers. Purchase BPI Certified products, which have been reviewed by an independent third-party in order to verify that they do not contain a variety of chemicals, including PFAS.

2. Identify Potential PFAS Contamination Sources

Utilize available town records and local knowledge to develop an inventory of municipal properties where PFAS contamination may be present in soil or groundwater as a result of historic or current activities.

- ✓ **Identify locations where AFFF may have been deployed.**
  Airports, current and former firehouses, training areas, buildings with foam-based fire suppression systems, and crash sites are locations where PFAS-containing foam may have been accidentally or intentionally released.

- ✓ **Identify locations where septage, sludge and/or biosolids-based fertilizers were land applied.**
  Fertilizers produced from wastewater solids (i.e., 'biosolids') may contain PFAS. In other states, areas where biosolids have been repeatedly applied to soil as a nutrient amendment are characterized by elevated PFAS levels in the soil and/or groundwater.

- ✓ **Identify current and former waste disposal locations.**
  Active and closed landfills as well as unofficial historical dumping locations may be local sources of PFAS contamination to groundwater.
- ✓ **Identify locations of current or former manufacturing and/or industrial activity associated with PFAS use.**
  Numerous industrial operations have been identified as potential PFAS generators or users including chemical manufacturing, cleaning product manufacturing, paint and coating manufacturing, plastics and resins manufacturing, metal machinery manufacturing, metal coating (including electroplating), electronics manufacturing, textile and leather producers, paper mills and paper product production, printing operations, carpet and upholstery cleaning, and drycleaning operations.

3. Test Drinking Water Near Potential PFAS Sources

Contaminated drinking water can be a significant source of PFAS exposure. Therefore, municipalities are encouraged to test town water supplies (and potentially private wells) located near potential PFAS sources (*e.g.*, airports, landfills, firefighting training areas, and industrial PFAS users).

Sampling for PFAS requires special procedures to prevent accidental cross-contamination of the sample. Municipalities should consider hiring a trained professional to conduct sample collection and assist with data interpretation.

- ✓ **Contract with an experienced environmental consultant to collect drinking water samples for PFAS analysis.**
  Several firms are available to municipalities at DAS contract rates; refer to contract #18PSX0153 for details. Request a copy of the firm's standard operating procedures (SOP) for sample collection for future reference if needed.

- ✓ **Utilize a CT DPH Certified laboratory for PFAS analysis.**
  CT DPH maintains a list of laboratories that are State-certified to conduct analysis of PFAS in drinking water (i.e., potable water) samples. Laboratory analytical services may be available at DAS contract rates; refer to contract #19PSX0095 for details. Laboratories will provide sample collection containers and detailed instructions. Analytical costs vary by laboratory; contact the laboratory in advance to request a cost estimate. Note that quality control samples, including field blanks and duplicates, typically cost the same as standard sample. Expect at least 2-3 weeks from submission to receive the results.

Request analysis using EPA Method 533 in order to evaluate all 10 PFAS for which DPH has established a drinking water action level.

- ✓ **Compare sample results to the CT DPH Drinking Water Action Levels for PFAS.**
  The Connecticut Department of Public Health has established Drinking Water Action Levels (DWALs) for ten PFAS compounds. DWALs may be established for additional PFAS compounds and these actions levels may be adjusted in the future as new information becomes available.

Connecticut PFAS Drinking Water Action Levels		
Abbreviation	**Full Chemical Name**	**DWAL** *(ppt or ng/L*)*
6:2 Cl-PFESA	6:2 chloropolyfluoroether sulfonic acid	2
8:2 Cl-PFESA	8:2 chloropolyfluoroether sulfonic acid	5
HFPO-DA ("Gen X")	Hexafluoropropylene oxide dimer acid	19
PFBA	Perfluorobutanoic acid	1,800
PFBS	Perfluorobutane sulfonic acid	760
PFHxA	Perfluorohexanoic acid	240
PFHxS	Perfluorohexane sulfonic acid	49
PFNA	Perfluorononanoic acid	12
PFOA	Perfluorooctanoic acid	16
PFOS	Perfluorooctane sulfonic acid	10

If PFAS are detected above a DWAL, send a copy of the results to your local health department and DEEP.PFAS@ct.gov. Upon receipt, staff will provide further guidance.

4. Respond to PFAS Contamination in Drinking Water

If PFAS contamination is discovered in a town-owned drinking water source:

- ✓ **Consider providing an alternative drinking water source such as bottled water.**
  If PFAS are detected above DWALs in a town-owned drinking water well, it is recommended that the town provide an alternate water source such as bottled water. The state DAS contract (#18PSX0325AA) for bottled water delivery is available for municipal use.
- ✓ **Consult with a water treatment professional to identify PFAS removal options.**
  Effective treatment options for reducing PFAS in well water include the use of primarily two treatment technologies: granular activated carbon (GAC) and point of use reverse osmosis (RO). Treatment effectiveness depends on correct system sizing and proper maintenance. Consultation with a professional is recommended. The state DAS contract for potable water treatment installation and maintenance (Contract #22PSX0029) is available for municipal use.

Contact the DEEP Remediation Division for guidance prior to conducting a PFAS investigation: DEEP.PFAS@ct.gov or 860-424-3061.

State Contracts Available for Municipal Use

State DAS contracts are available for municipal use. Enter the contract number in the green search box at this link: CTsource Contract Board.

Contract Name	Contract Number	Expiration Date	Purpose
Cooler Rental, Delivery of Bottled Water and Related Supplies	18PSX0325AA	May 2025	To provide bottled water until treatment can be installed
Environmental Investigation, Remediation and Project Management Services	18PSX0153	Feb. 2025	To obtain a consultant to support environmental investigation or cleanup.
Environmental Analytical Services	19PSX0095	Oct. 2025	State-negotiated analytical costs for PFAS sample analysis
List of Permitted Spill Cleanup Contractors	Current List	N/A	A list of spill-cleanup contractors in Connecticut.
National Foam Universal F3 Green Firefighting Foam	21PSX0028AB	Apr. 2025	Purchase of PFAS-free firefighting foam at the state-contracted rate
Public and Private Water Quality Management and Oversight	22PSX0029	Feb. 2026	Water sampling/testing; water system treatment installation, repair, maintenance, and decommissioning
Removal and Disposal of Hazardous Waste Streams	22PSX0030	Aug. 2025	PFAS-containing firefighting foam and decontamination rinsewater disposal.

DEEP PFAS Contact Information

Still have PFAS-related questions? We are here to help! Email DEEP.PFAS@ct.gov, call (860) 424-3061 or visit the DEEP PFAS Homepage: Per- and Polyfluoroalkyl Substances (ct.gov).

- Important Changes:
  - **Updated Drinking Water Action Levels**
  - **Updated state contracting information**
  - **Use Method 533 for drinking water analysis**
  - **Contact the PFAS coordinator (not district sup.)**
- Other Changes:
  - Highlighted key points with callout boxes
  - New information regarding release prevention and source ID

LABORATORY UPDATES

- ✓ EPA Finalized 'New' CWA PFAS Analytical Methods:
  - Method 1633 – 40 PFAS; soil, sediment, non-potable groundwater, surface water, sludge, tissue
  - Method 1621 – AOF, aqueous matrices (*wastewater)
- ✓ DPH Environmental Laboratory Certification Program currently certifying for Method 1633; 1621 planned
- ✓ DAS Contract 19PSX0095 *Environmental Analytical Services to Include Aqueous, Liquid Waste, Soils Sampling and Testing*
  - Contract extended through October 2025; available for municipal use
  - New pricing for PFAS methods (Exhibit B):
    - EPA Method 533
    - EPA Method 1633
    - EPA Method 1621
    - Total Oxidizable Precursor (TOP) Assay
    - Total Organic Fluorine (TOF) Assay
    - Extractable Organic Fluorine (EOF) Assay
    - OTM-45
    - OTM-50

2024 LEGISLATIVE SESSION PFAS HIGHLIGHTS

SB 290 – AAC Minor Revisions to Environment Related Statutes

- *Includes modifications to Toxics in Packaging language regarding PFAS in food packaging*
- Status: 3/22/24 Legislative Commissioner's Office (LCO) referred to Office of Legislative Research (OLR) and Office of Fiscal Analysis (OFA)

SB 292 – AAC The Use of PFAS in Certain Products

- *Substitute language added by Environment Committee (added schools to testing account eligibility, added biosolids to product list)*
- Status: 3/20/24 filed with LCO

SB 338 – AA Expanding the Eligibility for Grants to Remove PFAS from Fire Apparatus

- Status: 3/21/24 LCO referred to OLR and OFA

SB 378 – AAC A PFAS Background Data Study for the Purpose of Economic Development

- Status: 3/22/24 filed with LCO

HB 5290 – AAC DPH's Recommendations Regarding Various Revisions to the Public Health Statutes

- *Includes modifications related to private well data sharing by DPH*
- Status: 3/25/24 filed with LCO

NORTHEAST CONFERENCE

THE SCIENCE OF PFAS:

Public Health & The Environment

Join Us!

Tuesday to Thursday - April 2 to 4, 2024

Best Western Royal Plaza Hotel & Trade Center
Marlborough, MA

Three Days!

Attending? Say hello to Meghan, Ryan, Kelsey and Normandy!!

Conference Website: https://newmoa.org/event/pfas-science-conference-2024/

Registration: whova.com/web/92VPcfWHe1qwRTYzIg7gXtyYIo-Sb0Vp%40FRBRcQQoSU%3D/Registration/

QUESTIONS?

Meghan Lally
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860.424.3061

General Inquiries:
DEEP.PFAS@ct.gov

DEEP PFAS Webpage

Press Release: Attorney General Tong sues 28 chemical manufacturers for knowingly contaminating Connecticut water and natural resources, and harming public health with toxic PFAS "Forever Chemicals"

BROWNFIELD PROGRAM UPDATES

Presented by: Amanda R. Limacher, Brownfields Coordinator
Bureau of Water Protection and Land Reuse – Remediation Division

DEEP CERCLA 128(a) BROWNFIELD GRANT PROGRAM

- President Biden's Bipartisan Infrastructure Law (BIL)
- DEEP administers in accordance with EPA Subaward Policy
- Open to non-profits and municipalities
- Environmental assessment or remediation
- BIL funding up to $800K expected annually until 2027

DEEP CERCLA 128(a) BROWNFIELD GRANT PROGRAM

- park space
- greenways
- recreational space
- flood mitigation
- other non-profit purposes

DEEP CERCLA 128(a) BROWNFIELD GRANT PROGRAM

Maximum request per application:

- $250,000 for assessment
- $250,000 for remediation

No minimum request

- Special consideration for projects located in Environmental Justice Communities
- DEEP committed to awarding 60% to EJ projects

DEEP CERCLA 128(a) BROWNFIELD GRANT PROGRAM

Round 1 – September 2023
Notified awardees – February 2024
Public announcement – TBD

Round 2 – anticipated Summer 2024

DEEP CERCLA 128(a) BROWNFIELD GRANT PROGRAM

- **Contact Information**

- Amanda Limacher, Brownfields Coordinator
- amanda.limacher@ct.gov

- Meena Mortazavi, Environmental Analyst
- meena.mortazavi@ct.gov

- Brownfields Program
- DEEP.brownfields@ct.gov

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

March 26, 2024

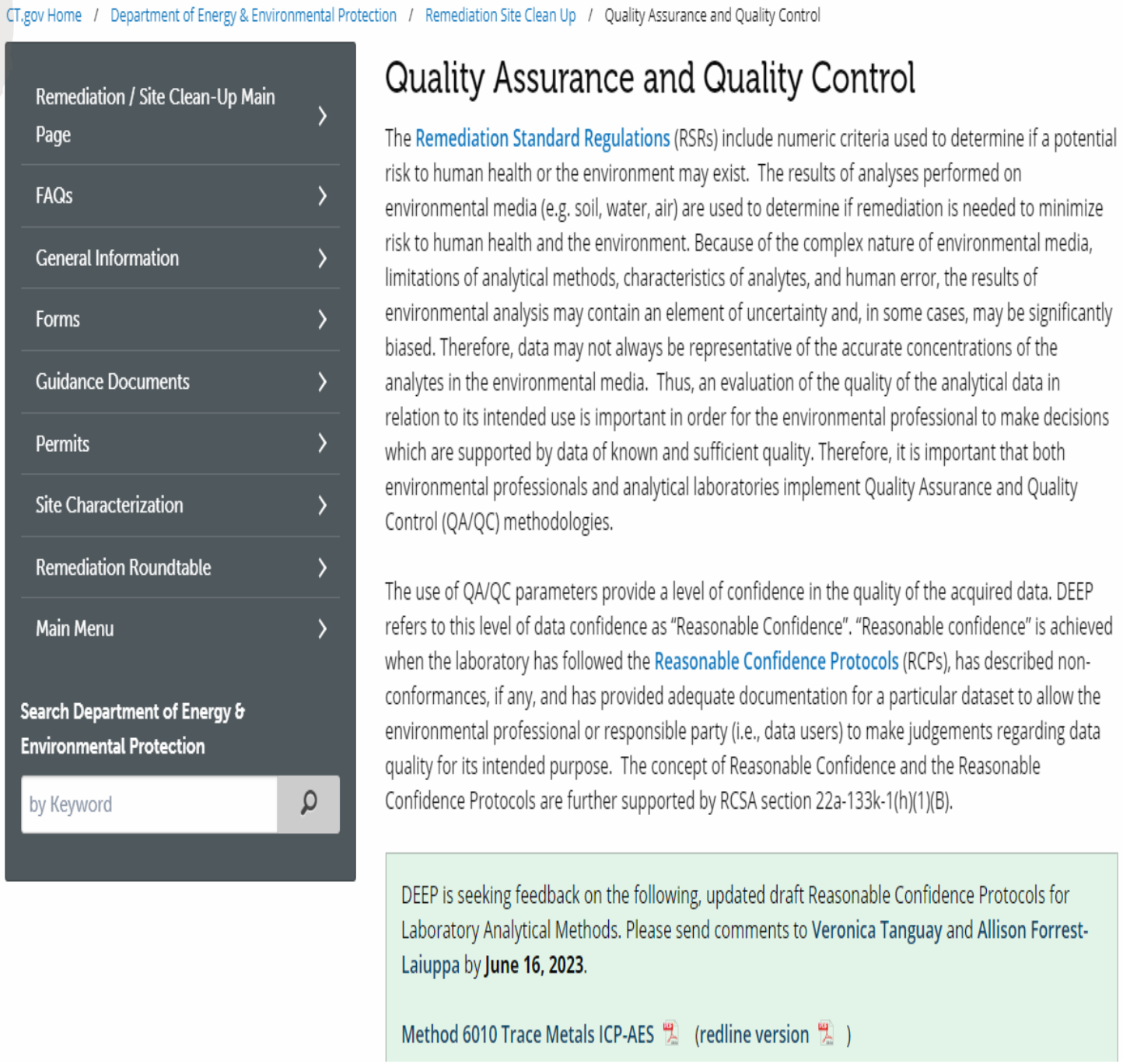
Roni Tanguay, Environmental Analyst

Agenda

- Updated RCPs Posted
- What's New in the RCPs
- Other QA Updates
- What's Next
- Questions

New RCPs Posted!

- New versions of the RCPs now live on the DEEP QA Page
- Effective date **May 10, 2024**
- Webpage updates also include:
  - QA workgroup response to comments
  - Table highlighting changes to RCPs
  - Updated forms
  - Update RCP Guidance Document



Which RCPs were updated?

NOTE!

- RCP TO-15 has not been updated *yet*, but it will be in the future &
- RCP 8021 has been retired

Metals

- 6010 – Metals by ICP-OES
- 6020 – Metals by ICP/MS
- 7000/7010 – Metals by GFAA/FLAA
- 7196 – Hexavalent Chromium by spectrophotometry
- 7470/7471 – Mercury by CVAA

Other

- 9010/9012/9014 – Cyanide by distillation and colorimetry

Organics

- 8081 – Pesticides by GC
- 8082 – PCBs by GC
- 8151 – Herbicides by GC
- 8260 – VOCs by GC/MS
- 8270 – SVOCs by GC/MS
- CT ETPH – Extractable Petroleum Hydrocarbons by GC/FID
- EPH – Extractable Petroleum Hydrocarbons by GC/FID
- APH – Air Petroleum Hydrocarbons by GC/MS
- VPH – Volatile Petroleum Hydrocarbons by GC/PID/FID
- TO-13 – PAHs in air
- TO-17 – VOCs in air

What's New in the RCPs

Updates to reporting limits

Review "Typical Reporting Limit" tables for updates*

Target analytes added to

8151

8270

8260

TO-13

Dual column results

Report the higher of the two results

Matrix Spikes

For **Metals** analyses, now **required** for all solid matrices

Strongly recommended for all matrices, for all analyses

Record Retention

Minimum 5 years

QC Acceptance Criteria

Most criteria have remained the same, some have changed, review closely!

Holding Times

PCBs holding time updating from "7 days to extraction" to "1 year"

Extraction Methods

Solid-phase extraction (SPE) and solvent dilution extraction have been added to applicable RCPs

RCP Cert Form

Updated RCP Certification Form[+]

[+]Includes note regarding temperature requirements

*These tables are meant to serve as guidance for what DEEP typically expects to see in reports. DEEP does not dictate what RLs laboratories **must** use. If laboratories can confidently report lower RLs, that is acceptable. RLs should **not** be above respective criteria.

Thanks to the RCP Team!

- Allison Forrest-Laiuppa, DEEP Corrective Action
- Daren Damboragian, Pace Laboratories
- Christian Merchant, Pace Laboratories
- Rebecca Merz, Phoenix Laboratories
- Michael Ainsworth, HRP
- Bill Flick, WSP

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
- Posted to the QA Webpage

Data Quality Assurance/Data Useability Guidance Document

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

Petroleum Guidance Document

- Original draft posted for public comment in 2015
- QA Workgroup has updated 2015 draft incorporating public comments
- Will be going through internal review process

What's Next…

DQA/DUE Training

- Updating training materials
- Organize training for 2025

PFAS RCP

- DEEP collaborating with MA DEP on establishing MCP CAM and DEEP RCP for EPA Method 1633

Thanks to the QA Workgroup!

- The QA Workgroup has tackled a lot of work in 2023 and there's more work to be done!
- Thanks to:
  - Allison Forrest-Laiuppa, DEEP Corrective Action
  - Kevin Vanderveer, DEEP Remediation
  - Daren Damboragian, Pace Laboratories
  - Christian Merchant, Pace Laboratories
  - Rebecca Merz, Phoenix Laboratories
  - Jeffrey Smith, CET Laboratories
  - Christina Venable, Ramboll
  - Tina Clemmey, EnSafe
  - Elizabeth Denly, TRC

Questions?

Environmental Justice

Connecticut Department of Energy and Environmental Protection ◆ March 26, 2024

Annie Decker, Esq.

Chief of Legal, Planning, and Regulatory Affairs

Sarah Huang, PhD

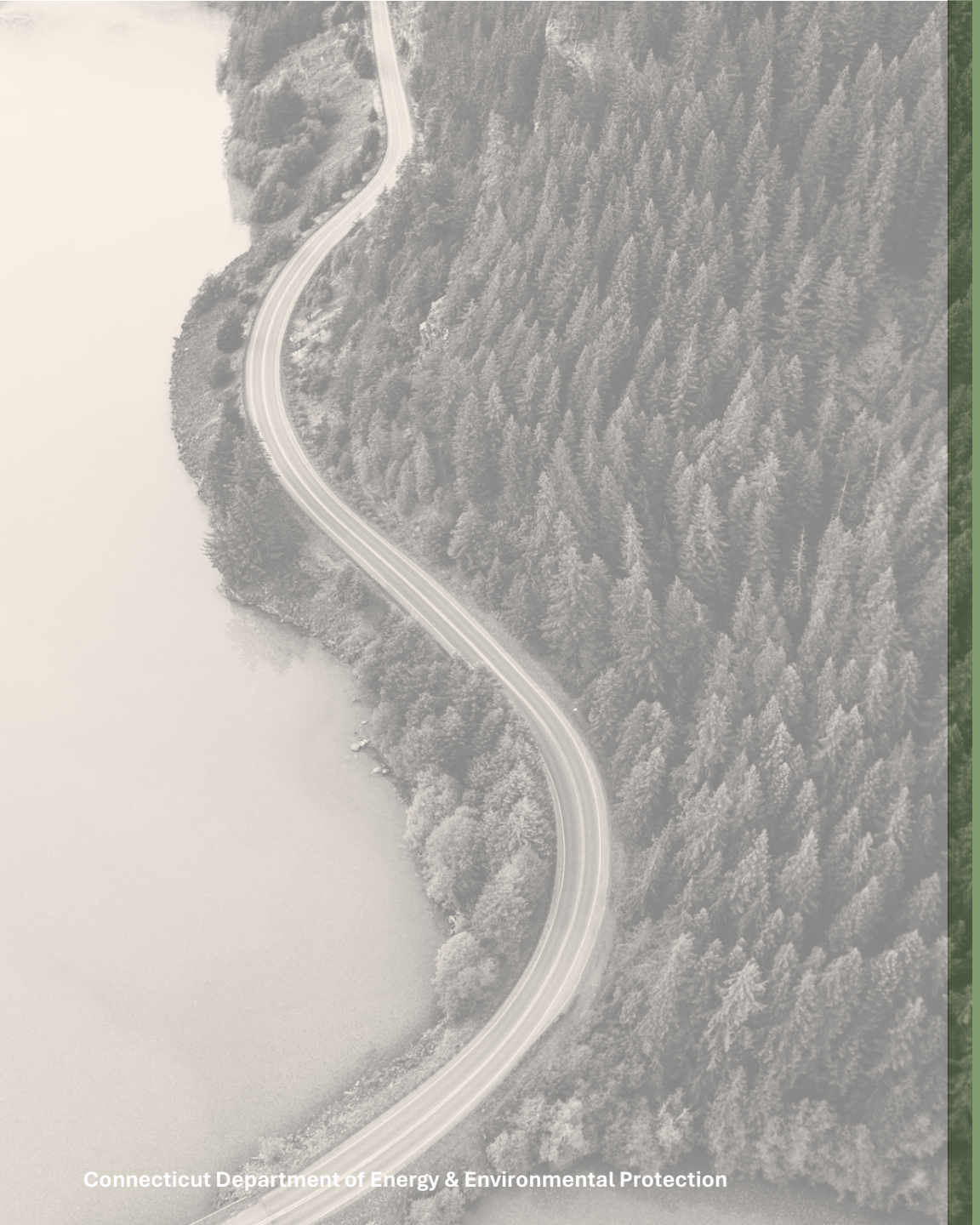
Director, Office of Equity and Environmental Justice

Eliza Heins, Esq.

Staff Attorney, Environmental Quality Branch

Edith Pestana, MS, MPH

EJ Program Administrator, Office of Equity and Environmental Justice



Presentation Roadmap

History of Environmental Justice Law

Environmental Justice and the Permitting Process

Newest Changes to the Environmental Justice Law

Environmental Justice Mapping and Tools

Cumulative Impacts Assessment Regulations Development

No segment of the population should, because of its **racial**, **ethnic**, or **economic** status, bear a disproportionate share of the **risks** and **consequences** of environmental pollution or be denied equal access to environmental **benefits**.

Environmental Equity Policy, 1993

An Act Concerning Environmental Justice Communities

Connecticut General Statutes § 22a-20a

Environmental Justice Community
definition

Affecting Facilities
definition

Public Participation
requirement

Community Economic Benefit Agreement
option

[Public Act 08-94](), codified 2009

Law **Expanded** in 2020

Community Economic Benefits Agreement	• Required if 5 or more affecting facilities • Previously at discretion of local elected town official
Local & State Elected Officials	• Written notice
Neighborhood & Environmental Groups	• Written notice • English and language(s) spoken by 15% or more of population within ½ mile

Public Act 20-6, effective 2020

2023 **Changes**

Public Participation expansions

New **Community Environmental Benefits Agreements** requirements

Cumulative Impacts Assessments

Public Act 23-202, effective October 1, 2023

Environmental Justice Communities

1. census block groups, for which **30%** or more of the population consists of low-income persons who are not institutionalized and have an income **below 200%** of the federal poverty level

2. **distressed municipalities**

Distressed Municipalities (ct.gov)

Affecting Facilities

electric generating facilities
with a capacity greater than 10 megawatts

sludge or solid waste incinerators or combustors

sewage treatment plants
with a capacity greater than 50 million gallons per day

intermediate processing centers
volume reduction facilities or multitown recycling facilities
with a combined monthly volume in excess of 25 tons

new or expanded **landfills**, including but not limited to,
landfills that contain ash, construction and demolition debris, or solid waste

medical waste incinerators

major sources of air pollution
as defined by the Clean Air Act

Environmental Justice Affecting Facilities Map (arcgis.com)

Public Participation

Community Environmental Benefits Agreement*

*If 5 or more affecting facilities in town

Cumulative Impacts Assessment *forthcoming*

New Effective October 1, 2023

CEBA submission before NTD

Resident involvement

Connection between impacts and benefits

Minor modifications exempt

Streamlined process

½-mile **mailing**

Electronic media posting

Accept **written comments & questions**

Video record public meeting

Submit report in 30 days

Public Act 23-202 | Guidance Document

Environmental Justice Website →

Connecticut
Department of Energy & Environmental Protection

CT.gov Home / Department of Energy & Environmental Protection / Environmental Justice / Participate in the Permitting/Policy Process

- Our Commitment to Environmental Justice
- Environmental Justice Program Overview
- Review Our Environmental Equity Policy
- Report an Environmental Concern
- Participate in the Permitting/Policy Process
- Learn More About Environmental Justice Communities
- Tap into Our Education and Outreach Programs
- Help Address Climate Change
- Explore Environmental Grant Opportunities
- Access Health Information
- Find Additional Resources
- Find Available Programs and Initiatives

Search Department of Energy & Environmental Protection

by Keyword

DEEP is eager to engage the community in its permitting and policymaking process. Whether you're seeking a permit, want to share your opinions about potential permits that could affect your area, or want to help shape environmental policy, we are here to listen and to assist you in any way possible.

About the Permitting Process

We encourage all potential participants, or stakeholders, to understand how the permitting process works so they can better engage in this process. Here are a few resources you may find helpful:

- Overview of the Permitting Process
- Permit Process Flowchart
- Permitting Checklist for Applicants
- Environmental Equity Checklist for Permit Applicants

How to Engage the Surrounding Community

Keep in mind that before any permit applications can be filed that involve applicable facilities in Environmental Justice Communities, an Environmental Justice Plan must be submitted for review by email to Edith Pestana of the Environmental Justice Program at edith.pestana@ct.gov.

Here are some additional resources that may be helpful in putting together your Environmental Justice Plan:

- Overview of Environmental Justice Communities
- Environmental Justice Affecting Facilities Web Map
- Demographics and Affecting Facilities Web Map
- Environmental Justice Public Participation Plan Forms (Word Version | PDF Version)
- The Environmental Justice Public Participation Guidelines
- Public Participation Plans for Remote Meetings
- 2023 Updates to the State's Environmental Justice Law

Environmental Justice Public Participation Plan →

Connecticut
Department of Energy & Environmental Protection
Office of Equity and Environmental Justice

Environmental Justice Public Participation Plan

Before an applicant files a permit application with the Department, the applicant must submit an Environmental Justice Public Participation Plan (the "Plan") and receive approval *for **any affecting facility,*** in accordance with section 22a-20a of the Connecticut General Statutes (CGS), *that is proposed to be located or expanded in an **environmental justice community***. For definitions and further guidance on the underlying EJ statute, please refer to the Department's ***Environmental Justice Guidance Document***.

If a Plan is required for your project, please complete and submit this form to the addresses indicated at the end of this form.

Once the Department has **tentatively approved** a Plan, the applicant is responsible for fully implementing that Plan. Before the Department issues a Notice of Tentative Determination, the applicant must submit a final report, documenting the implementation of the Plan and receiving Department **Approval**. If any of the information changes that is to be supplied in this form, or in the tentatively approved Plan, the applicant must contact the Office of Equity and Environmental Justice to determine if the initial Plan must be amended.

Please label all supporting documents to correspond with the outline provided in this document, e.g., "Part II A: Project Summary".

Note:

1. All submitted plans will be made publicly available.
2. All citations herein are to CGS § 22a-20a, Connecticut's Environmental Justice statute. This form is designed to guide applicants in preparing a public participation plan. Applicants should refer to the appropriate statutes and regulations for more detail. It is the applicants' responsibility to obtain and comply with all relevant state, federal, and local laws.
3. This form is now in Version 2.0, last edited in January 2024. DEEP welcomes feedback on the usability of the form.

Part I: Proposed Applicant Information

1. APPLICANT INFORMATION

Applicant:

Mailing Address:

City/Town: State: Zip Code:

Business Phone: ext.

Contact Person: Phone: ext.

Email:

Applicant (check one): ☐ individual ☐ company ☐ federal agency, ☐ state agency ☐ municipality

If a company, list company type (e.g., corporation, limited partnership, etc.):

☐ Check if any co-applicants. If so, attach additional sheet(s) with the required information as requested above.

Connecticut Environmental Justice Public Participation Guidance Document

2024

Table of Contents

I. INTRODUCTION

Connecticut adopted in 2009 one of the country's first statutes that places environmental justice ["EJ"] requirements on DEEP permitting activities and Siting Council certificates. *See* Connecticut General Statutes ["CGS"] § 22a-20a. The law has been greatly successful and continues to evolve with the times.

Effective October 1, 2023, Public Act 23-202 updated § 22a-20a. This guidance document lays out the EJ law's requirements, and highlights what is new in 2023.

APPENDIX A: REQUIREMENTS FOR DIFFERENT PERMIT APPLICATION TYPES

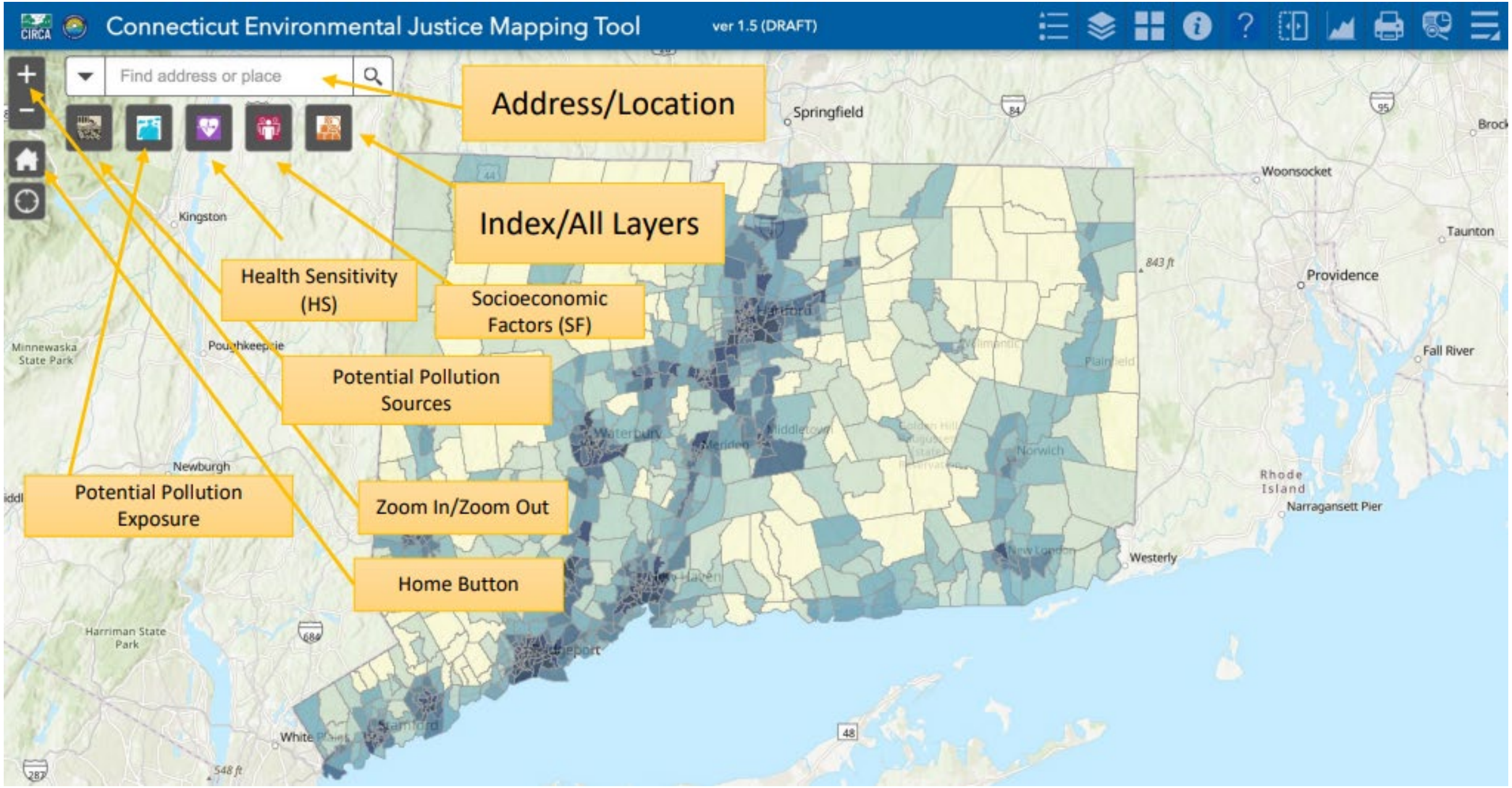
	New Permit	Siting Approval	Expanded Permit	Minor Modification
Submit **Public Participation Plan**	✓	✓	✓	
Get approval of **Public Participation Plan** before Filing Application	✓	✓	✓	
Notice: Place sign on the proposed or existing facility[11]	✓	✓	✓	
Notice: Notify local and state elected officials	✓	✓	✓	
Notice: Post on electronic media	✓	✓	✓	
Notice: Mail notice to residential households within ½ mile radius of proposed or existing Affecting Facility	✓	✓		
Notice: Publish in a newspaper having general circulation in the area affected	✓	✓	✓	
Accept written comments from any interested party and provide an opportunity for meaningful public participation at the informal public meeting	✓	✓	✓	
Follow new **Public Participation Report** requirements[12]	✓	✓		
Submit **Public Participation Report** to the department or council	✓	✓	✓	
Submit **Public Participation Report** to the department or council not later than thirty days after the informal public meeting	✓	✓		
Video record the informal public meeting and submit the recording to the department or council with the **Public Participation Report**	✓	✓	✓	
Evaluate the need for a **CEBA**	✓	✓	✓	
Enter into a **CEBA**[13]	✓	✓	✓	
Submit a copy of the executed **CEBA** to the department or council prior to notice of tentative determination	✓	✓	✓	

[11] In English, and in all languages spoken by at least 15% of the population that reside within a one-half mile radius of the proposed or existing Affecting Facility (§ 22a-20a(b)(2).

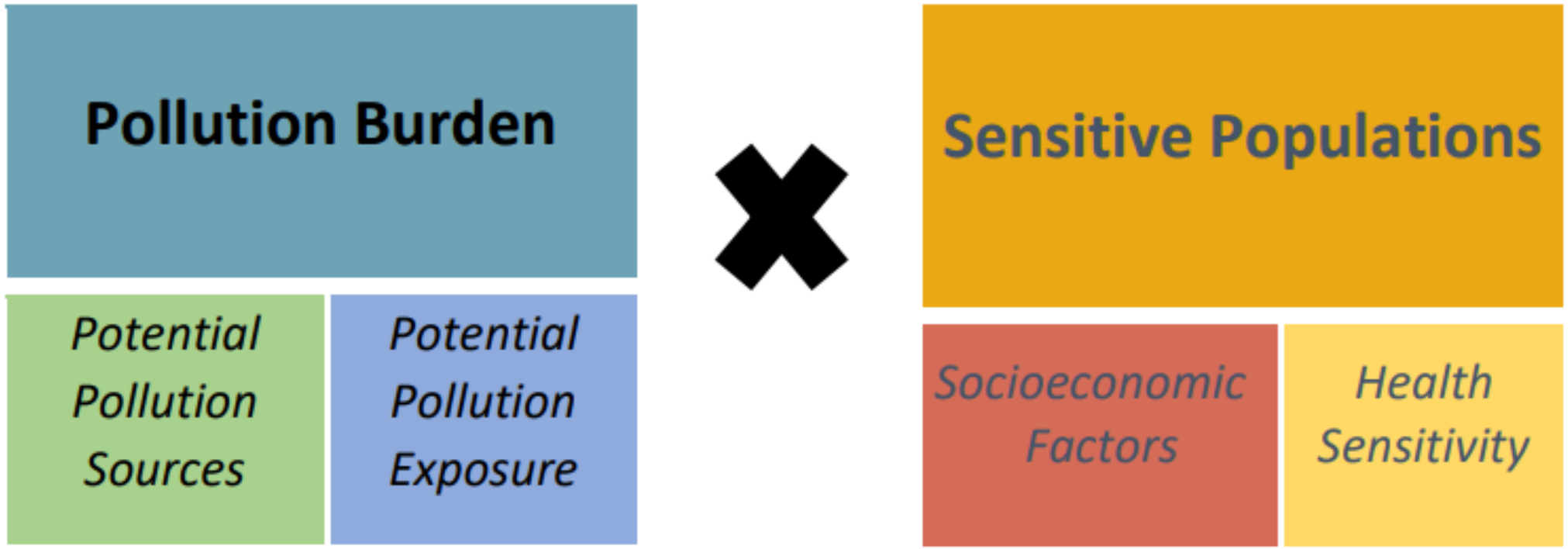
[12] An affidavit that the applicant satisfied the requirements in § 22a-20a(b)(2)-(5), all written comments received, responses to concerns and questions presented in such written and verbal comments (§ 22a-20a(b)(1)).

Connecticut Department of Energy & Environmental Protection

ENVIRONMENTAL JUSTICE



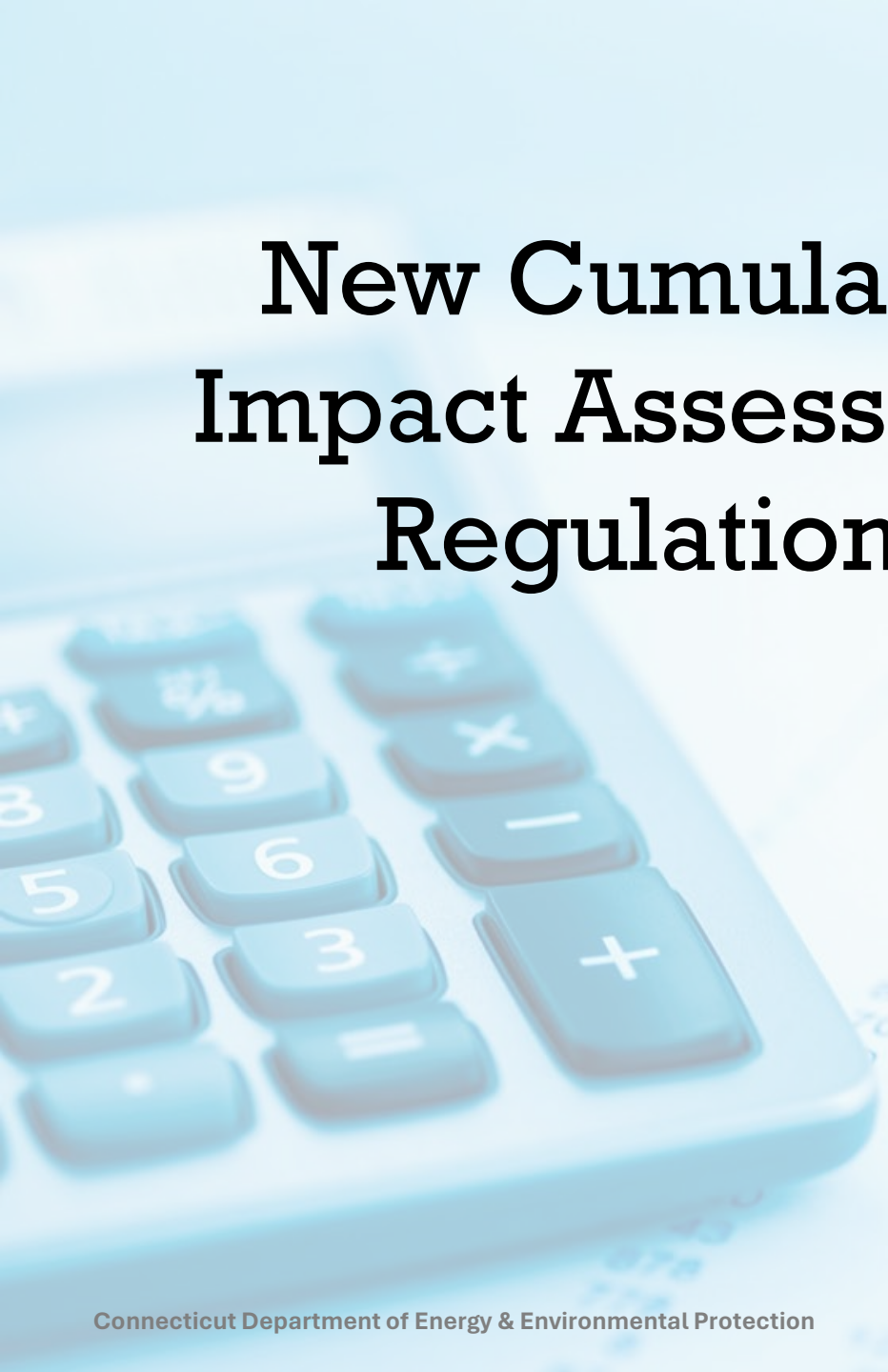
[Connecticut Environmental Justice Screening Tool (uconn.edu)]



from [CIRCA report]

from CIRCA report

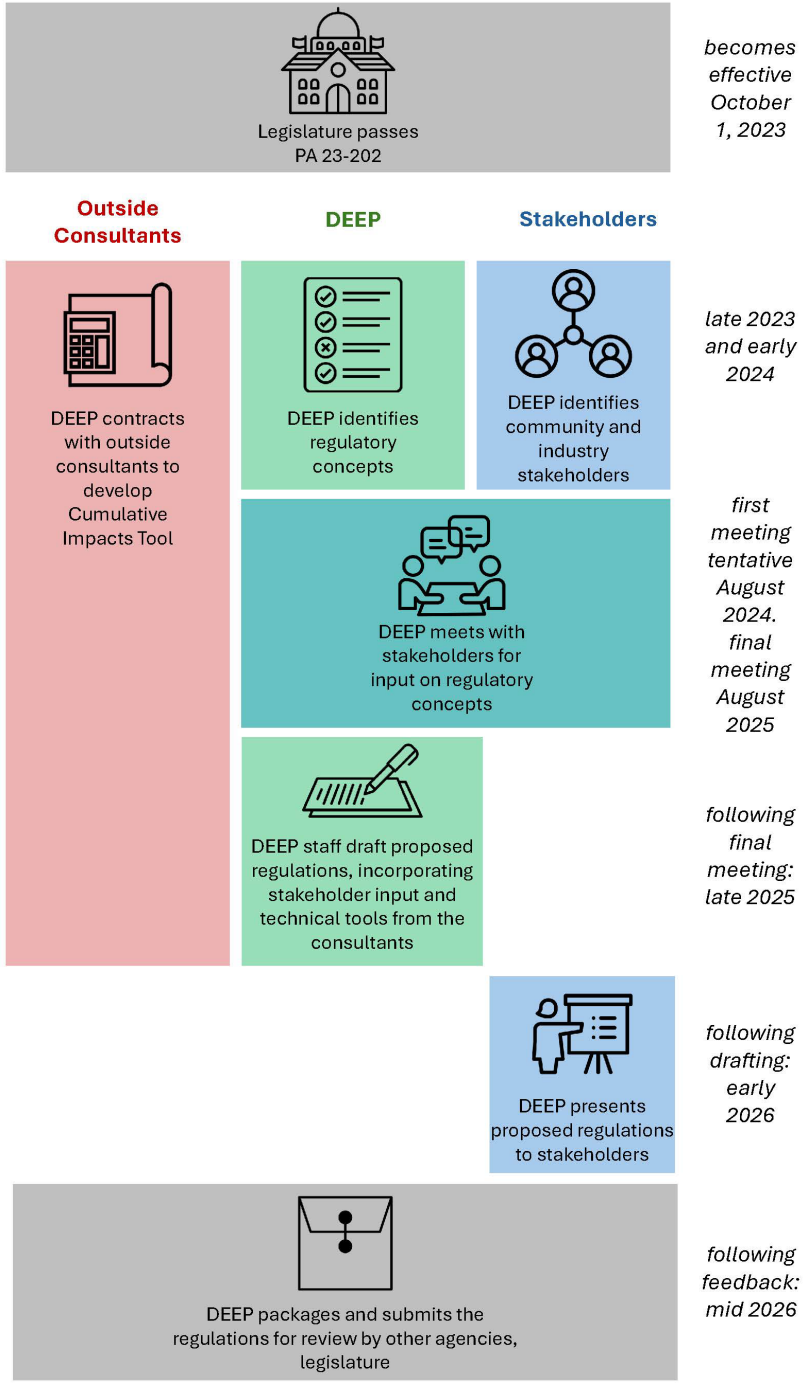
New Cumulative Impact Assessment Regulations

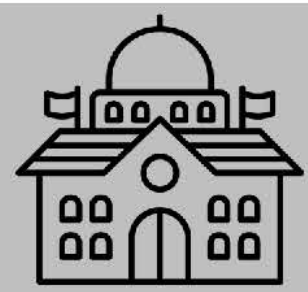


Identification & **measurement** of public health stressors' relative impacts

Tools for stakeholder industries and sectors

Standards for denying or placing conditions on permits


Legislature passes PA 23-202
becomes effective October 1, 2023
Outside Consultants
DEEP
Stakeholders
DEEP contracts with outside consultants to develop Cumulative Impacts Tool
DEEP identifies regulatory concepts
DEEP identifies community and industry stakeholders
late 2023 and early 2024
DEEP meets with stakeholders for input on regulatory concepts
first meeting tentative August 2024. final meeting August 2025
DEEP staff draft proposed regulations, incorporating stakeholder input and technical tools from the consultants
following final meeting: late 2025
DEEP presents proposed regulations to stakeholders
following drafting: early 2026
DEEP packages and submits the regulations for review by other agencies, legislature
following feedback: mid 2026



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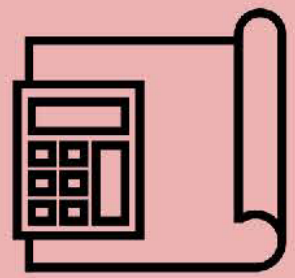
Outside Consultants

DEEP

Stakeholders



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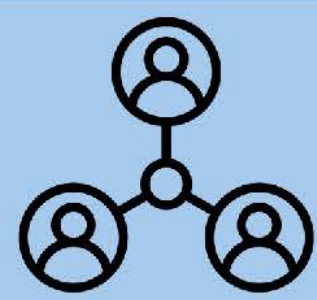

DEEP identifies community and industry stakeholders

late 2023 and early 2024

first meeting tentative

consultants to develop Cumulative Impacts Tool

concepts

stakeholders

DEEP meets with stakeholders for input on regulatory concepts

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DEEP staff draft proposed regulations, incorporating stakeholder input and technical tools from the consultants

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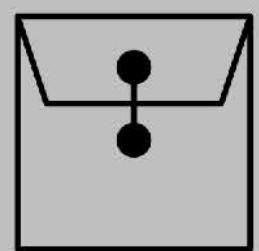

DEEP packages and submits the regulations for review by other agencies, legislature

following feedback: mid 2026

Regulatory Concepts

- Identification & Measurement of Stressors
- Public Health & Environmental Stressors Tool
- Cumulative Impacts Assessment
- Geographic Points of Comparison
- Standards for Denying & Placing Conditions on Permits
- Public Participation Plan, Report

We want to hear from you!

deep.ejrulemaking@ct.gov


Environmental Justice

Remediation Roundtable

E-mail: DEEP.remediationroundtable@ct.gov

Web: www.ct.gov/deep/remediationroundtable


Remediation Roundtable
Next meeting June 18, 2024