

Subject: Working Group Topics and Presentations

Good morning,

In advance of next week's Working Group meeting, please find our two presentations attached and summaries of these presentations below.

Thank you for everyone's efforts in our new format for meetings and back and forth discussions on our substantive topics. I think that our first question and answer session went really well. Submitting your questions and comments in advance of the meeting allowed DEEP the time to formulate well-thought-out responses. Also, don't forget that we are still accepting written comments on these topics, as we have done throughout.

Immediate Actions – Endpoints

This presentation will be the 3rd in a series of presentations on Immediate Actions and will:

- provide a quick refresher on what we discussed in the last two presentations
- overview the 3 ways to close an IA (cleanup in 2 hours, achieve cleanup standards, hit an IA endpoint) with focus on endpoints
- discuss endpoints for ERRs found in drinking water wells, groundwater, soil, VOS/VPS, and surface water
- discuss endpoints for SERs found in drinking water wells, groundwater, soil, VOS/VPS, and surface water
- describe the timing and content of IA reports
- discuss remediation after achieving an endpoint to clean up a release to the cleanup standards
- demonstrate who can close an IA

Historically Impacted Material

This presentation introduces a new permit by rule for the management of historically impacted material on parcels with an industrial/commercial activity and will cover:

- **Applicability** - After meeting certain eligibility requirements, an owner of an industrial/commercial property can submit a notification to the Department for coverage under the permit by rule to manage the historically impacted material on site and be exempt from meeting the direct exposure criteria.
- **On-Going Requirements** - Owners must ensure the historically impacted material is not relocated off-site; maintain only industrial/commercial activities; record an affidavit of facts on the land records; and conduct five-year inspections. The permit by rule applies to any new owner and others holding an interest in the parcel.
- **Termination** - Failure to comply with the above requirements results in the termination of the permit by rule, and owners must remediate the parcel to the cleanup standard applicable to the land use.

We look forward to seeing you on Tuesday!

Best,

Graham



IMMEDIATE ACTIONS III: ENDPOINTS

By: John Gallalee, Brendan Schain, Amber Trahan, Lori Saliby, Gary Trombly, Lynn Olson-Teodoro and Ryan Mowrey

WHAT IS AN IMMEDIATE ACTION (“IA”)?

An IA is the immediate response upon discovery of a release by:

1. Removing the release from the land and waters of the state
2. Implementing measures to prevent migration of the release, such as active remediation techniques, the use of physical barriers, or appropriate treatment systems
3. Identifying the source of the release and eliminating it (with some exceptions)

Immediate means starting removal no later than 2 hours after such release is reported.



Emergent Reportable Release (“ERR”)

“Emergent reportable release” means a release to the land and waters of the state discovered by an observed change in conditions that is required to be reported by regulations adopted pursuant to section 22a-450 of the Connecticut General Statutes.

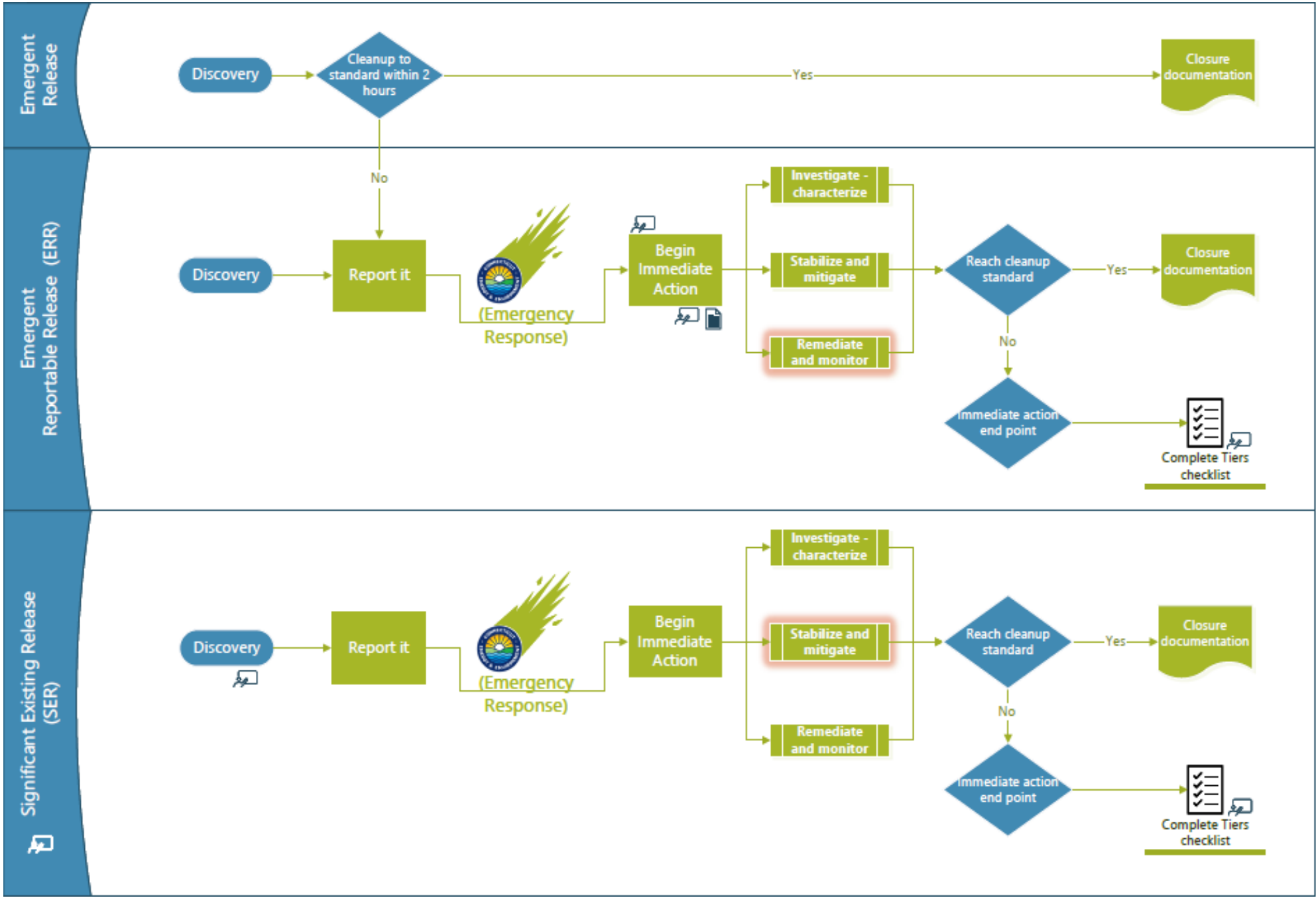
Significant Existing Release (“SER”)

“Significant existing release” means a release to the land and waters of the state discovered pursuant to section 22a-134tt-2 of the Regulations of Connecticut State Agencies that is present in the location identified by, or creating one or more of the impacts to public health or the environment identified in, subsection [placeholder] of this section.

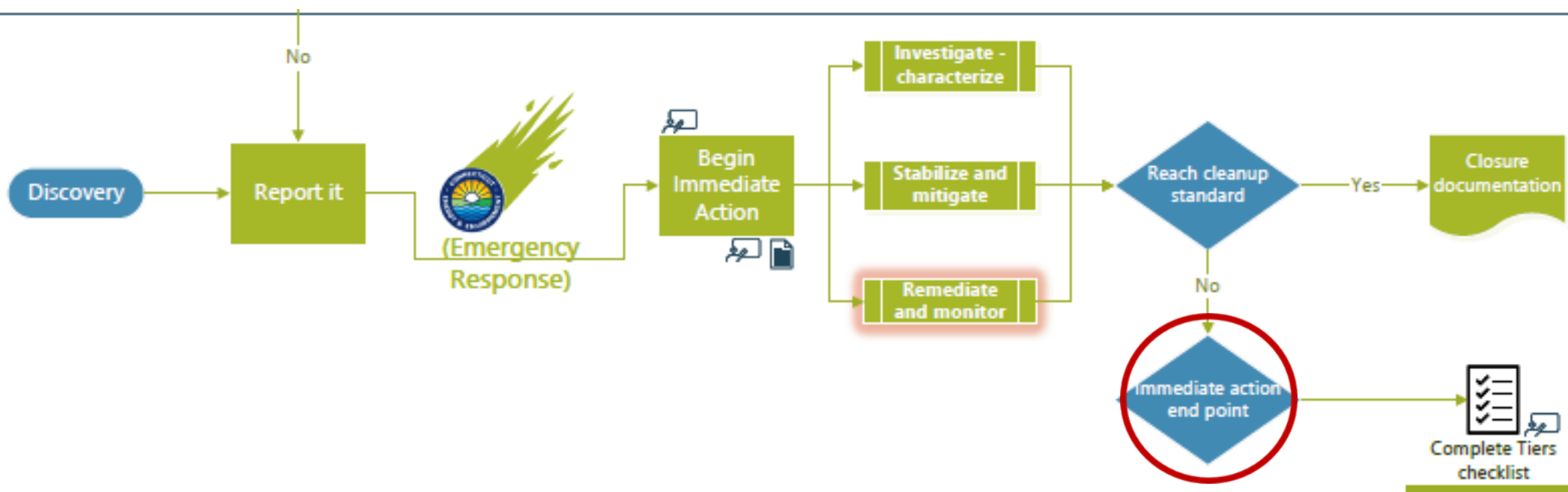
WHAT IS AN IA ENDPOINT?

2 ways the obligation to perform an IA can be satisfied:

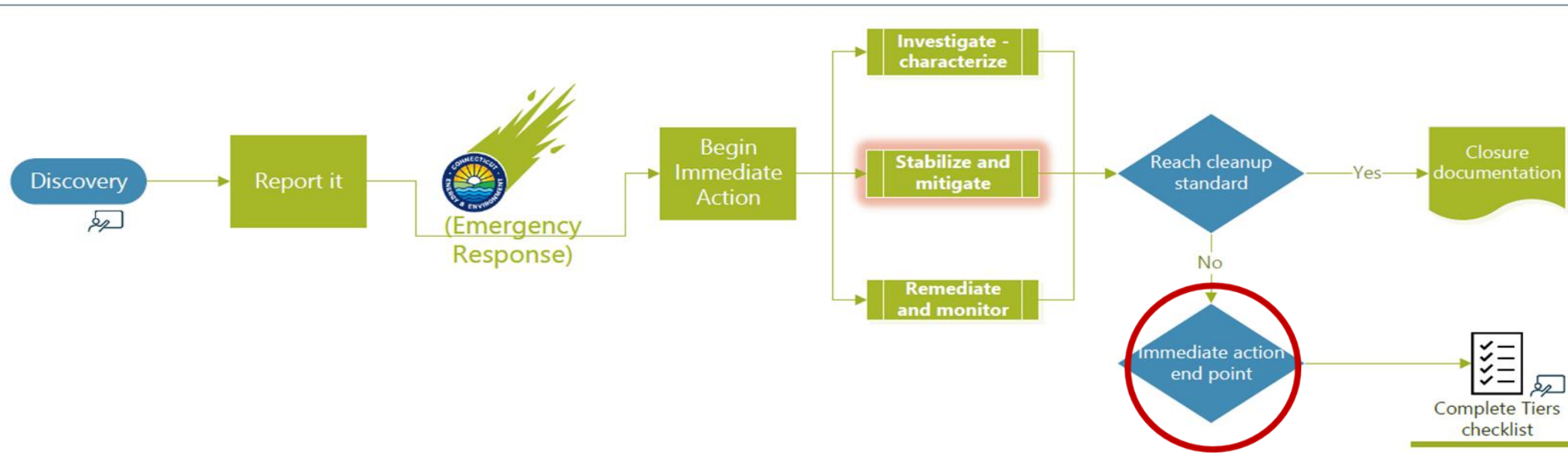
- 1) Achieve cleanup standards
(release fully remediated; prepare closure documentation)
- 2) Achieve IA endpoint
(immediate threat eliminated; transition to tiering)



Emergent Reportable Release (ERR)



Significant Existing Release (SER)



To achieve any endpoint you must submit a report that does 2 things:

- Demonstrate that all specified actions have been taken.
- Tell us what's left



ERR ENDPOINTS (DRINKING WATER WELLS)

If an ERR impacting a drinking water well is not remediated to the cleanup standards within 1 year, achieving an endpoint requires:

- Replacement of each impacted drinking water well or connection to an unimpacted source

AND

- Without treatment:

- submit all quarters of quarterly monitoring results to the commissioner, if results comply with standards

OR

- With treatment:

- submission of all quarters of monitoring results, if no detections
- Submission of an IA report



ERR ENDPOINTS (GROUNDWATER)

If an ERR impacting groundwater present in a groundwater monitoring well within 500 feet of a drinking water well is not remediated to the cleanup standards within 1 year, achieving an endpoint requires both:

- Tiering in Tier 1A
- Submission of an IA report



ERR ENDPOINTS (SOIL)

If an ERR impacting soil is not remediated to the cleanup standards within 1 year, achieving an endpoint requires all of the following:

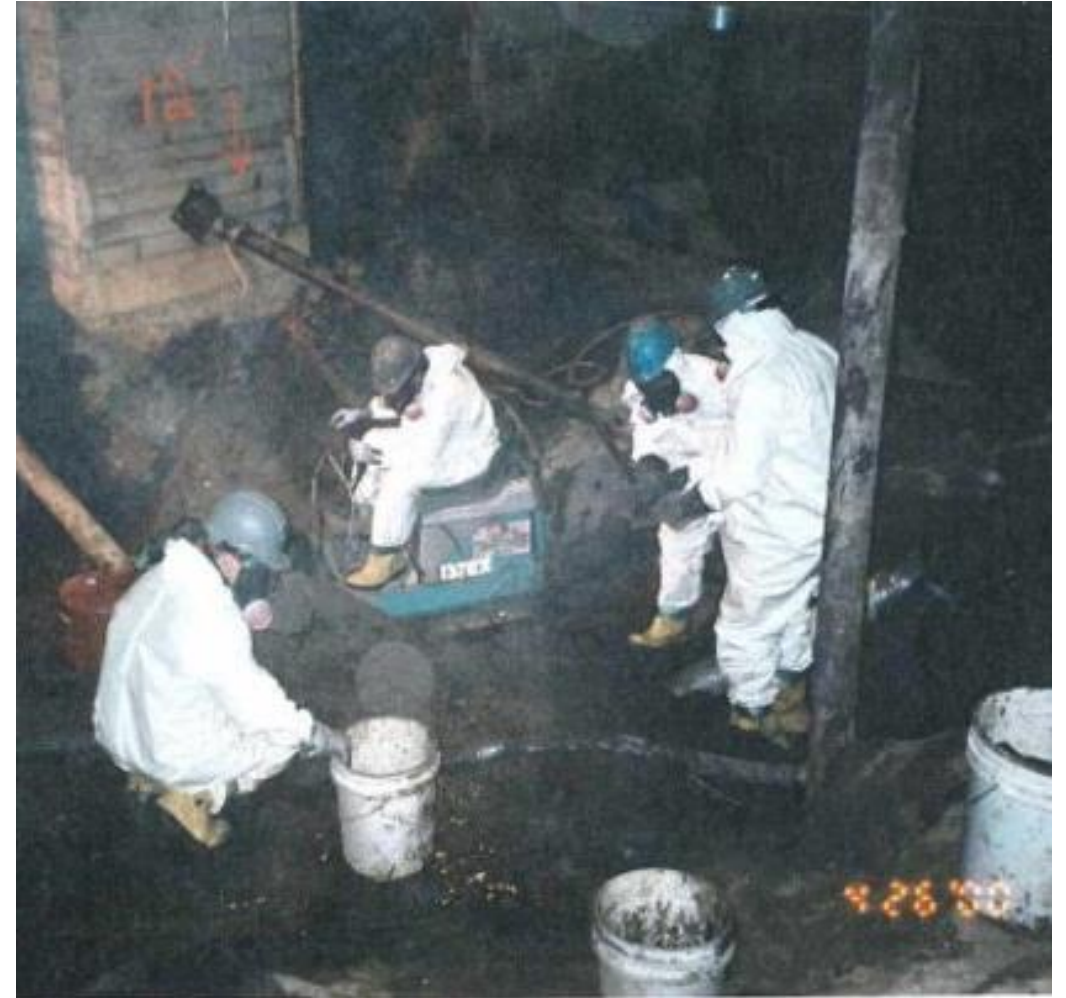
- Removal of the release to the maximum extent practicable, and
- Mitigation of risk of exposure, and
- Submit an IA report



ERR ENDPOINTS (GROUNDWATER VOS/VPS)

If an ERR of volatile organic substances or volatile petroleum substances impacting groundwater near a building is not remediated to the cleanup standards within 1 year, achieving an endpoint requires both:

- Mitigation measures have been implemented, but an EUR has not yet been recorded
- 9 indoor air samples, taken in consecutive months, indicate concentrations less than the applicable TAC



ERR ENDPOINTS (SURFACE WATER)

If an ERR causing a visible impact to surface water is not remediated to the cleanup standards within 1 year, achieving an endpoint requires all of the following:

- Source release has been removed or mitigated to the maximum extent practicable, and
- Visible sheen is collected or eliminated, and
- Submission of an IA report



SER ENDPOINTS (DRINKING WATER WELLS)

If an SER that has caused or is causing contamination of a drinking water well is not remediated to the cleanup standards within 1 year, achieving an endpoint requires:

- Replacement of each impacted drinking water well or connect to an unimpacted source

AND

- Without treatment:

- submit all quarters of quarterly monitoring results to the commissioner, if results comply with standards

OR

- With treatment:

- Submission of all quarters of monitoring results, if no detect
- Submission of an IA report



SER ENDPOINTS (GROUNDWATER)

If an SER of a substance for which GWPC has been specified that has caused or is causing contamination of groundwater within 500 feet of a drinking water well at a concentration equal to or greater than the GWPC is not remediated to the cleanup standards within 1 year, achieving an endpoint requires both:

- Tiering in Tier 1A
- Submission of an IA report



SER ENDPOINTS (SOIL)

If an SER impacting soil within 2 feet of the ground surface, that contains a substance at concentrations greater than or equal to fifteen times the applicable DEC for that substance, is not remediated to the cleanup standards within 1 year, achieving an endpoint requires both:

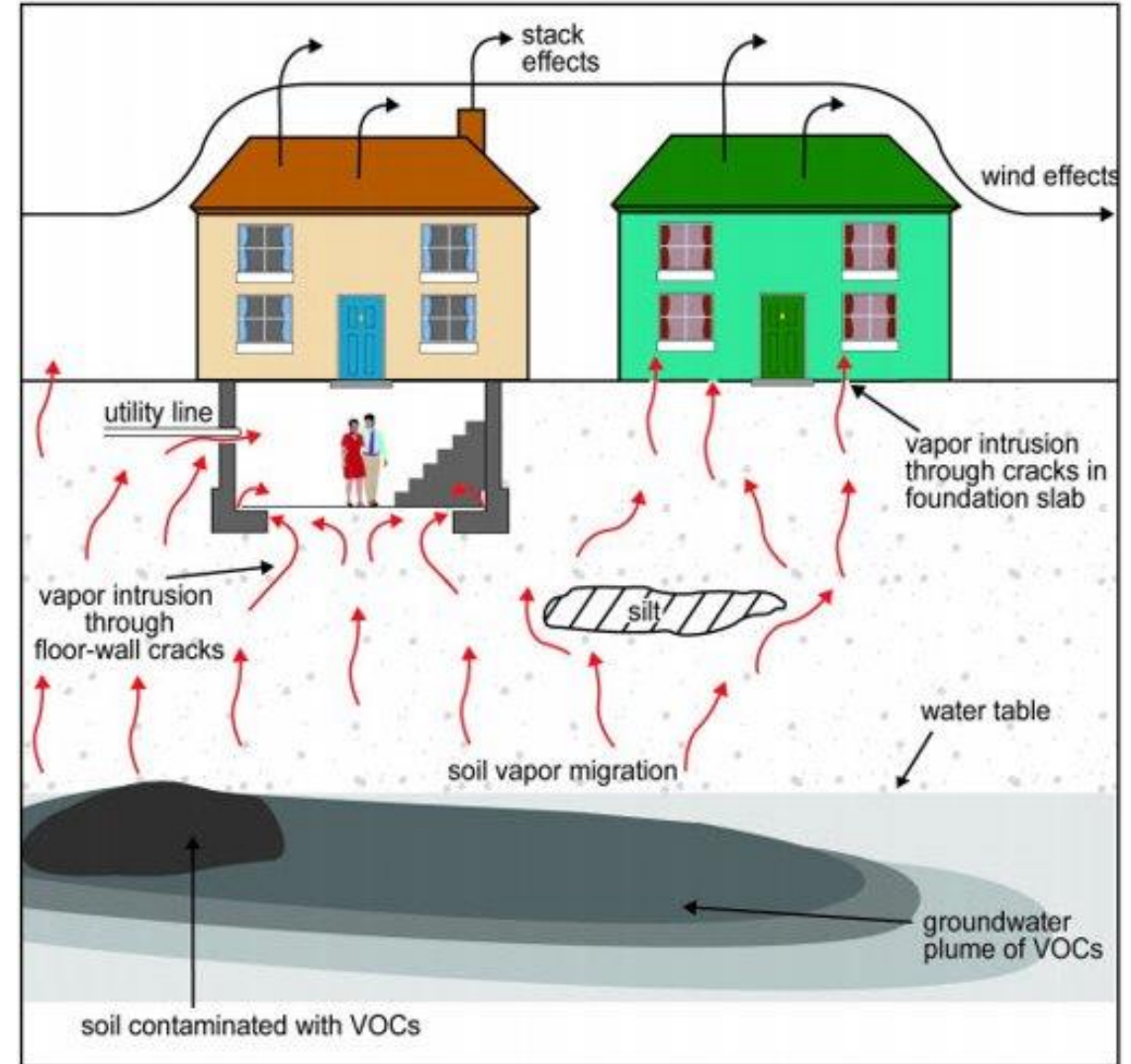
- Mitigation of risk of exposure
- Submit an IA report



SER ENDPOINTS (VOS/VPS)

If an SER of volatile organic substances or volatile petroleum substances impacting groundwater in proximity to a building is not remediated to the cleanup standards within 1 year, achieving an endpoint requires both:

- Mitigation measures have been implemented, but an EUR has not yet been recorded
- 9 indoor air samples, taken in consecutive months, indicate concentrations less than the applicable TAC



IMMEDIATE ACTION REPORT (TIMING)

- IA reports must be submitted:

- 30 days after completion of the actions required to achieve an immediate action endpoint

OR

- Not more than one year following discovery of an ERR or SER

SER ENDPOINTS (SURFACE WATER)

If a release of 10X the SWPC or of NAPL that is impacting groundwater near surface water is not remediated to the cleanup standards within 1 year, achieving an endpoint requires both:

- Tier Characterization is complete
- Tiering is complete



IMMEDIATE ACTION REPORT (CONTENTS)

Reports shall be:

- On a form provided by DEEP, and
- Identify the creator/maintainer, and
- Identify the LEP or PEP, and
- Identify whether the cleanup achieved a cleanup standard or an IA endpoint, and
- Provide information demonstrating the previous point, and
- Outline next steps for the cleanup

REMEDIATION AFTER IA ENDPOINT



1) When an IA cleanup does not achieve the cleanup standards, the release shall remain subject to the requirement to remediate to such cleanup standards.









(2) Substances remaining in the land and waters of the state after an IA endpoint has been achieved must be tier characterized not later than one year after discovery



(3) If substances present due to a release remain in the land and waters of the state following the completion of an IA, such release must be placed into a cleanup tier unless a cleanup standard has been achieved

WHO CAN CLOSE IAs?

	Emergency or Exigent Conditions	discovered through laboratory analysis of samples	Causing ground water impact	Will satisfy cleanup standards that require LEP	All other IAs
Verification by LEP					
Certification by PEP					
DEEP					



THANK YOU!

Please submit any questions within 7 business days to
DEEP.Cleanup.Transform@ct.gov.



HISTORICALLY IMPACTED MATERIAL

**Presented by: Kevin Vanderveer & Sarah Solarz
Bureau of Water Protection and Land Reuse**

PROBLEM STATEMENT



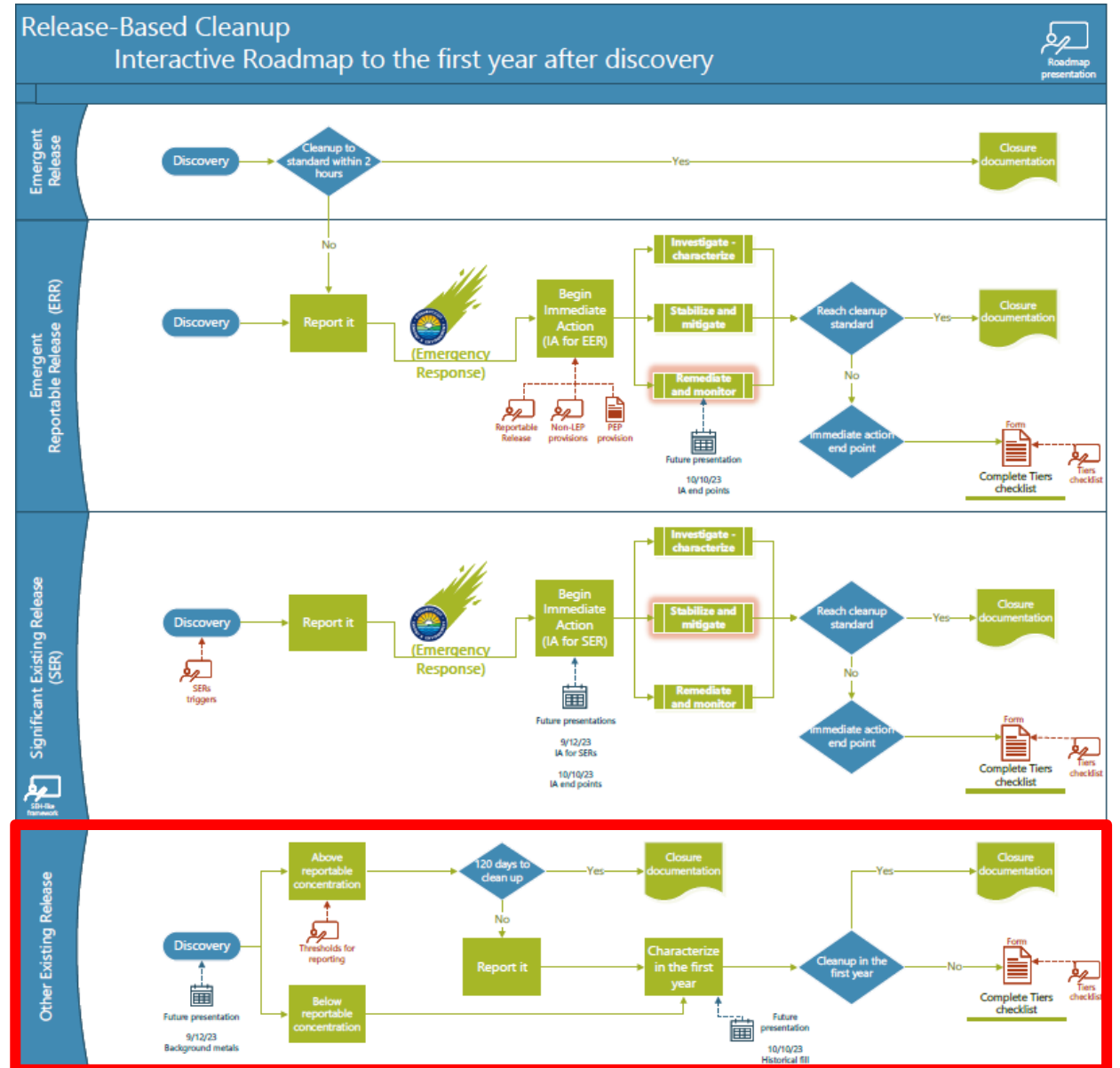
Many developed areas have historical land uses that resulted in the placement of coal, coal ash, wood ash, and asphalt fragments:

- Localized or extensive filling
- General community land use (wood- and coal-fired stoves and fireplaces)

The RSRs provide a pollutant mobility criteria (PMC) exemption for “polluted material” but still require compliance with the DEC.

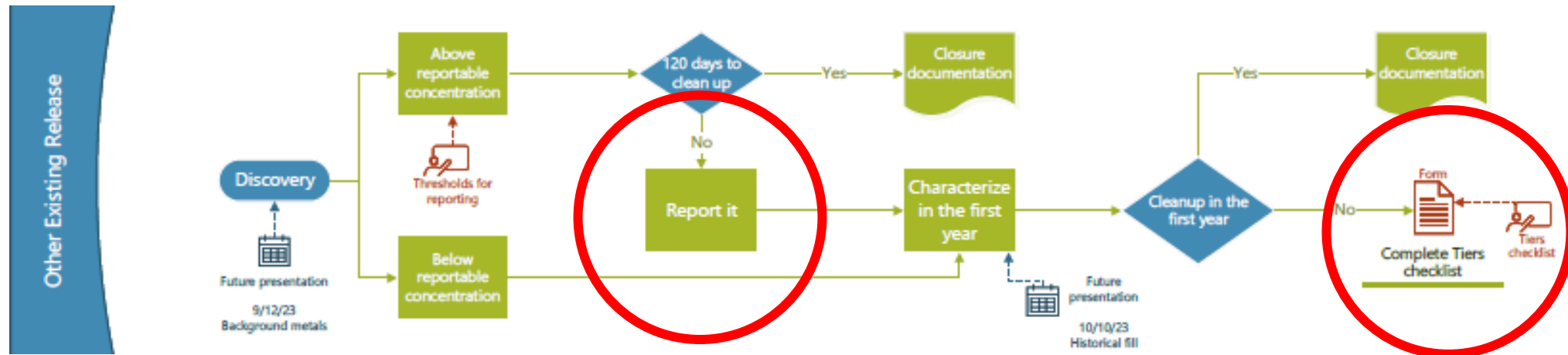
WHERE THIS FITS IN THE FIRST YEAR ROAD MAP

Polluted material, as defined in the RSRs, will generally be an existing release and will most likely be identified while investigating another release.



WHERE THIS FITS IN THE FIRST YEAR ROAD MAP (CONT.)

- Historically impacted material will need to be reported
- May not be fully characterized and cleaned up in the first year
- Enter a tier



22a-133k-1(a)(64) - Polluted Material means soil that has been historically intermixed with coal ash, wood ash, coal fragments, coal slag, coal clinkers, asphalt paving fragments, or any combination thereof.

PROPOSED APPROACH

Historically Impacted Material Exemption

- Uses the same definition of “polluted material” that is currently in the RSRs (22a-133k-1(a)(64))
- Incorporate the existing polluted material PMC exemption
- Incorporate an additional DEC pathway for industrial/commercial (I/C) sites - based on current land use

Characterization Extension (I/C)

- 1 year to complete characterization sufficient to determine if removal of the historically impacted material is not prudent
- 1 more year (if needed) for additional characterization to determine if there are any Significant Existing Releases associated with the historically impacted material

Resolution (I/C)

- Management of polluted material in place by "permit by rule"

WHAT IS A PERMIT BY RULE?

Mechanism

A regulatory mechanism similar to a general permit that allows for coverage of facilities/parcels that meet certain eligibility criteria.

Structure

The text of the permit is contained within the regulations.

Does not require an Environmental Use Restriction (EUR).

Coverage

By providing notice to the Department, eligible parcels are covered by the permit by rule until an event occurs that results in the permit's termination.
(more on that)

Other Uses

Permit by rule is used by the federal government, other states and by DEEP's Bureau of Air Management.

PERMIT BY RULE SUMMARY

Applicability

- Industrial/Commercial sites only
- Characterization confirms the presence of historically impacted material on the parcel and such material is not prudent to remediate.
- Any soil that exceeds Significant Existing Release (SER) thresholds has been removed or rendered inaccessible in the time specified by the Immediate Action (IA) section.

Notification

- If an owner satisfies the criteria above, they can submit a notification to the Department for coverage by the permit by rule.

PERMIT BY RULE SUMMARY

Requirements

- Maintain only industrial/commercial use
- Historically impacted material cannot be relocated to a different parcel
- If ownership of parcel/portion/interest changes, the transferee will be notified.
 - New parcel/portion owners will be covered by and subject to the permit by rule
- Affidavit of Facts recorded on land record
 - Historically impacted material is present on the parcel
 - Parcel owner has registered for the permit
- Closure report
- 5-year inspections by the owner to confirm permit conditions

PERMIT BY RULE SUMMARY

Termination

- **Failure to comply** with the requirements of the permit by rule will result in the termination of the permit by rule

Termination means the historically impacted material must be reported as a release and remediated in accordance with the RSRs for the applicable land use.

- **Change in use**

If the parcel will be used for an activity that is not industrial/commercial, the owner must notify the Department and remediate the parcel to comply with the standards for the new use prior to the application of the new use on the parcel.

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



A stylized landscape illustration. At the top right, a bright yellow sun is partially visible. Below it, a large green hill with a dark blue outline dominates the middle ground. The bottom of the image shows a light blue area representing water, also with a dark blue wavy outline. The text 'THANK YOU' is centered on the green hill.

THANK YOU