

Working Group members,

Earlier today, your Review and Drafting Team transmitted the attached report to DEEP as the Working Group's advice and recommendations to DEEP on the Second Phase Subcommittee Concept Papers. The report was modified by your team to address the comments received during the Working Group meeting earlier this week.

Thank you for all of your collective efforts to get us to this point. We look forward to presenting a work plan to you at the August Meeting that will help inform our next steps.

Best and be well,

Graham

Phase II Drafting Team Report

Updated July 13, 2022

I. INTRODUCTION

The Drafting Team has prepared this report on the second phase of Topical Subcommittee Concept papers for the development of the Release-Based Remediation Program (RBRP), which were provided to the working group convened pursuant to Public Act 20-9 (“Working Group”) on April 11, 2022. This report was prepared by the Drafting Team and was reviewed and adopted by the Working Group. The Drafting Team, with direction and feedback from the Working Group, incorporated comments on a draft of this report received by Working Group members.

This document provides our overall comments to the three concept papers as follows (links provided to posted papers):

- [Topical Subcommittee 6: Modification of Clean-up Standards for Lower-Risk Releases Concept Paper](#)
- [Topical Subcommittee 7: LEP-Implemented, Risk-Based Alternative Cleanup Standards](#)
- [Topical Subcommittee 8: Clean-up Completion Documentation, Verifications, and Audit Frequency and Timeframes](#)

The Drafting Team also reviewed the first five Subcommittee Concept Papers, two Ad Hoc Team papers, Transition Advisory Group (TAG) papers, and Department of Energy and Environmental Protection (“DEEP” or “Department”) response papers to identify:

- Where there are consensus recommendations associated with the development of the RBRP;
- Open issues that need to be addressed by the overall Working Group; and
- Issues that require other statutory/regulatory changes.

These documents can be found on DEEP’s webpage [here](#).

The Drafting Team consists of:

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We recognize and applaud the efforts of all the subcommittee members who worked on these papers over the past several months. We acknowledge the difficult task each subcommittee undertook in a brief period to address the multitude of complex issues that must be evaluated

as we embark on a transition to the proposed RBRP for Connecticut. In summary, the Drafting Team and the larger Working Group, which has reviewed and provided input into this report, agrees with the conclusions and recommendations from each report and offers the following more specific comments on the topics we find most pertinent and challenging for the development of this new program.

II. OVERALL FRAMEWORK FOR RELEASE-BASED REMEDIATION PROGRAM

Over the last year and a half of discussion by the Working Group and its subcommittees and ad hoc teams, a cohesive framework has emerged to cover releases from discovery or occurrence through clean-up and closure.

Occurrence/Discovery: The newly promulgated regulations under Conn. Gen. Stat. sec. 22a-450 (“Spill Regulations”) address the occurrence of contemporaneous releases. For historical releases, the presence of certain constituents in environmental media will lead to an examination of whether a release occurred at some time in the past (i.e., whether a historical release has been discovered). Under some circumstances, the presence of certain constituents will not support a conclusion that a “release” has been discovered, for example if the constituents are present at (anthropogenic or natural) background levels or under circumstances consistent with an exemption from the definition of release (e.g., historic fill, use of fertilizer/pesticides consistent with labeling). Subcommittee 1 also indicated that there may be other lines of evidence (short of numeric criteria) supporting the conclusion that a historical release had occurred.

Reporting: Reporting of contemporaneous releases is addressed by the Spill Regulations. For historical releases, there may be an obligation to report some releases but not others. The Working Group expects that “reportable concentrations” will be developed in regulations and that the presence of constituents at or above reportable concentrations may trigger an obligation to report (similar to Massachusetts). Depending on the severity of the release, different reporting deadlines might be applicable (Subcommittee 2 suggested the two-hour, 72-hour and 120-day reporting structure used by Massachusetts as a potential model). Releases that trigger an obligation to report might not trigger an obligation to remediate (e.g., when the release is related to an upgradient source). Similarly, releases that must be remediated would not necessarily trigger a reporting requirement (for example, if the release is closed out before the reporting deadline).

Characterization: Whether the release is contemporaneous or historical, it will need to be characterized (i.e., the nature and extent of the release will need to be evaluated). Characterization is likely to be an iterative process and will rely on tools ranging from the ordinary five senses to laboratory analysis. For some releases, characterization need not include laboratory analysis if other lines of evidence (e.g., field screening, witnessing a contemporaneous release) provide sufficient information. Some level of characterization will be required to identify the severity of the release (e.g., whether it is impacting drinking water, whether it is eligible for one of the streamlined closure pathways). Additional characterization

work may be warranted as remedial plans are developed, as remediation is initiated, and/or when closure is pursued. A new Release Characterization Guidance Document (RCGD) has to be developed in conjunction with the regulations to provide guidance on what constitutes characterization consistent with prevailing standards and guidelines.

Cleanup: Various subcommittees have discussed specific cleanup requirements and strategies. Subcommittee 4 discussed immediate removal action (“IRAs”) when releases pose risks so significant that they must be cleaned up urgently, as well as releases so simple that they can be cleaned up quickly as non-mandated IRAs. Subcommittee 5 discussed the need for tiering releases that cannot be cleanup within a year of the discovery of the release and pose differing degrees of risk and requiring differing levels of involvement from DEEP. Subcommittee 6 (discussed further below) proposed categories of releases that could be cleaned up (and closed) quickly with little or no sampling and comparison to numeric standards. Subcommittee 7 (discussed further below) discussed cleanup tools that could be implemented by an LEP with little to no DEEP involvement.

Closure Documentation and Verification: Subcommittee 8 (discussed further below) discussed specific closure documentation and credentials required to close out different types of releases. Subcommittee 8 identified the need for a user-friendly reporting tracking, and closure system to be created, preferably online. It is important that this on-line system be simple and efficient for the lowest-risk releases so the documentation can be completed by anyone responding to and mitigating the release.

III. OVERVIEW OF PHASE II SUBCOMMITTEE REPORTS

A. Topical Subcommittee 6: Modification of Clean-up Standards for Lower-Risk Releases

Subcommittee 6 did not find consensus on defining “low-risk” releases. For the program to be successful, it is imperative that some releases be identified and documented as low or lower risk, so that they can achieve an early exit from the program. This will relieve the burden on the program and the unnecessary use of resources and associated costs to implement the program. Low-risk releases should be identified based on the amount of information known about the release, its nature, extent and magnitude and its potential to impact receptors.

The second challenge addressed by Subcommittee 6 is the identification of who can ultimately sign off on the closure of low-risk releases once they are defined. LEPs have the training and expertise to complete this task, but consensus has not been reached on whether this task should be limited to CT DEEP staff and LEPs or if another class of professionals should be considered.

While DEEP has signaled a reluctance to develop a new class of licensed professionals, the Working Group has noted that there are existing regulatory programs that authorize non-LEP environmental professionals to perform certain tasks. Existing definitions for classes of

professionals, for example the EPA definition of Environmental Professional¹ and/or the definition of Technical Environmental Professional in Connecticut’s Significant Environmental Hazard statute,² could be leveraged by the RBRP. By leveraging an existing regulatory definition, DEEP could avoid the administrative burden of creating and managing a new class of professionals while facilitating market acceptance based on existing familiarity with the relevant class. The Working Group has repeatedly noted the importance of market acceptance of closure documentation from non-LEPs by those individuals and entities that need to rely on such documentation (lenders, attorneys, buyers, sellers) for the RBRP to succeed.

Subcommittee 6 has laid out a framework for closing low-risk releases in some cases with no sampling or confirmatory laboratory analysis, and in other cases with limited sampling and analysis. The ability to close low-risk releases quickly and cost-effectively will be critical to the success of the RBRP and the Working Group emphasizes the importance of development of additional details and protocols for closing the lowest risk releases.

B. Topical Subcommittee 7: LEP-Implemented, Risk-Based Alternative Cleanup Standards

Expanding the existing self-implementing options for LEPs with regards to risk-based cleanups, as proposed by Subcommittee 7, is imperative to implement a successful program.

Subcommittee 7 raised the potential adoption of a process modeled on or similar to the Massachusetts Contingency Plan (“MCP”) Method 3 concepts and approaches. The Department informed the Working Group that it believed MCP Method 3 to be beyond the scope of Subcommittee 7’s charge. The Department indicated that the creation of a new subcommittee or other group within the Working Group is necessary to evaluate the use of self-implementing comprehensive risk assessment that relies on time tested US EPA risk assessment guidance under certain circumstances. The Department indicated that such group must include representatives from additional stakeholder groups, including DPH. The formation of this proposed subcommittee/group will offer an opportunity to discuss concepts suggested by Subcommittee 7 with all appropriate stakeholders. Items for consideration should include qualifications, education, experience, and other factors related to professionals implementing Method 3 concepts and approaches.

A risk assessment option (similar to Method 3) is an important foundational tool for understanding, evaluating, and advancing often complex environmental sites toward

¹ EPA defines an “Environmental Professional” who can conduct “all appropriate inquiries” as someone who has one of these qualifications: (i) a state- or tribal-issued certification or license and three years of relevant, full-time work experience; (ii) a bachelor’s degree or higher in science or engineering and five years of relevant, full-time work experience; or (iii) ten years of relevant, full-time work experience. 40 CFR § 312.10(b).

² The Connecticut Significant Environmental Hazard (SEH) statute defines a Technical Environmental Professional (TEP) as individual, including, but not limited to, an environmental professional licensed pursuant to section 22a-133v, who collects soil, water, vapor or air samples for purposes of investigating and remediating sources of pollution to soil or waters of the state and who may be directly employed by, or retained as a consultant by, a public or private employer.” Conn. Gen. Stat. § 22a-6u(a)(10).

closure. This option requires the development of a rigorous site-specific human health and/or ecological risk assessment that incorporates an intensive examination of all levels of risk and potential existing and future exposure scenarios at a site. This level of risk assessment incorporates the use of the most current scientific and toxicological information, which is then applied to actual site-specific conditions. As a result, this risk assessment creates a focusing lens which identifies what elements of a site pose significant real-world risks, and where remedial efforts need to be directed. Similarly, it also identifies those aspects of a site where options such as institutional controls, long-term monitoring, and/or land use restrictions are most appropriate, or alternatively, where no actions are needed.

The Working Group agrees with the assertion that LEPs are qualified to direct the development of risk-based alternative cleanup criteria in certain situations due to their qualifications, experience, and oversight, and/or their ability to incorporate the work of other professionals with specific risk assessment expertise.

The Working Group agrees with the recommendation that sufficient continuing education on topics related to risk characterization be expected of LEPs who intend to submit verifications or other closure documents that rely on a risk-based alternative that involves those risk characterization elements that are addressed following identification of receptors and exposure point concentrations.

C. Topical Subcommittee 8: Clean-up Completion Documentation, Verifications, and Audit Frequency and Timeframes

Subcommittee 8 also discussed specific closure documentation and credentials required to close out different types of releases.

With regards to credentials/qualifications for individuals with sign-off authority (preparation of closure documentation), LEPs are qualified by their education, experience, and licensure, and are accountable for their work by the audit process and oversight by the LEP Board with their capacity to issue disciplinary actions. If another class of trained professionals is granted authority to close low-risk releases, similar criteria (and means of ensuring accountability) must be established to ensure proper closure of low-risk releases and acceptance of such closures in the marketplace. This also needs to recognize that for the lowest-risk releases, a non-environmental professional may respond to and mitigate the release and provide the closure documentation.

A public facing database is a critical component to the RBRP and should be operational by the effective date of the RBRP. There is a need for a user-friendly, online reporting, tracking, and closure system to be created. It is important that this on-line system be simple and efficient for the lowest-risk releases so the documentation can be completed by the person (potentially with or without any training) responding to and mitigating the release. It is also important that standard naming conventions be established for uniformity and confidence in the marketplace.

This is critical to allow for transparent sharing of environmental data and to allow for business transactions to occur in an efficient manner.

Subcommittee 8 also focused on the audit process and associated document retention and identified the need for a system that provides for timely (within 120 days) audits on a reasonable number (frequency) of release closure documents.

IV. SYNTHESIS OF PHASE I AND II CONCEPTS

The various subcommittees from both Phase I and Phase II of the RBRP conceptual development process have assigned releases into categories, classes or tiers. Additional work will be required to harmonize and integrate the classifications proposed by the subcommittees into a cohesive regulatory scheme. That said, the concepts advanced by the Phase I and II subcommittees can be integrated into a cohesive “roadmap” setting forth closure pathways for various types of release, including the credentials required to close them out. The flow chart attached as Figure 1 provides such a roadmap. Table 1 is also provided and identifies additional concepts related to the proposed release response process.

The RBRP should permit the simplest releases to be closed out by the person responding to and mitigating the release. There should be an intermediate level of releases that can be closed out by an intermediate level of non-LEP professionals. Finally, the releases that do not qualify for closure by the two non-LEP groups should be closed by an LEP, with varying levels of supervision by DEEP depending on the specific risk profile (see Tiers paper).

A key consideration is whether the release was historical or contemporaneous. For contemporaneous releases, critical details regarding the identity and quantity of the substance released may be readily apparent. This will naturally simplify the level of characterization required to fully understand the nature and extent of the release. For contemporaneous releases that do not trigger reporting to DEEP and do not impact environmental media, a non-environmental professional should be able to respond to and mitigate the release in a manner that closes out all regulatory obligations.³ More significant contemporaneous releases may need to be closed out by an environmental professional (or even an LEP) if they involve reportable quantities, impact environmental media, and/or are not closed out within 14 days. The 14-day timeframe is open to discussion and symbolizes the need for quick response and closure of Category 1 releases.

For historical releases, critical details like the identity and quantity of the substance released, as well as timing and other circumstances related to the release, may not be readily apparent. As a result, more characterization would likely be required to fully understand whether a “release”

³ The Working Group recognizes that the recently promulgated Spill Regulations (RCSA 22a-450) address reporting of contemporaneous releases but notes that the Spill Regulations do not address the requirements for regulatory closure or the reporting criteria for discovered historical releases.

has occurred and, if so, the nature and extent of the release. For releases that have the potential to have reached groundwater, closure would need to be verified by an LEP. For releases of both petroleum and hazardous substances without the potential for groundwater impacts, however that is determined,⁴ non-LEP environmental professionals should be empowered to close the release. The deadlines shown in the attached roadmap are illustrative and may require further study.

The pathway ending in LEP verification could be the subject of its own complex flow chart and requires further study. As Subcommittee 7 made clear, LEPs should be empowered with a number of streamlined options that they can implement themselves without DEEP approval, including those currently available under the current RSRs as well as additional self-implementing options developed for the new program. Furthermore, the level of DEEP oversight (or control) should vary by risk level associated with the release, as discussed by Subcommittee 5 (Tiers).

V. CONCLUSIONS

A. Summary of Consensus Items

1. **A Cohesive Framework:** A cohesive framework has emerged that traces a release from occurrence/discovery through reporting, characterization, cleanup and closure.
2. **Leverage Online Tools:** There is a need for a user-friendly online reporting, tracking, and closure system to be created. The Subcommittee 8 paper discussed this issue in detail, but the concept was endorsed by Subcommittee 6 as well. Market acceptance of all closure documentation is critical to the success of the RBRP.
3. **Non-Professionals and Non-LEP Professionals:** A number of subcommittees have agreed that the new regulations should permit some releases to be closed without an LEP, and in some cases without an environmental professional. Some minor releases could be managed by average citizens with no particular training. Some intermediate releases will need to be managed and closed by non-LEP professionals but would not require the expertise of an LEP. While there has been widespread support for the identification of non-LEP professionals (without identifying a new licensing program) additional detail is required. The specific role and credentials for non-LEP professionals have not yet been identified.
 - **RECOMMENDATION:** As noted above, market acceptance of all closure documentation is critical to the success of the RBRP and a Phase III subcommittee should be convened to flesh out discussion of non-LEP professionals and non-professionals.

⁴ The regulations will need to provide clear and easily implementable guidelines for determining when a release could not have reached groundwater. The risk posed by a release will encompass a variety of considerations, including identity of the substance, the quantity of substance released, surface onto which it is released (e.g. impervious surface) and time it takes to clean up.

4. **Flexible and Streamlined Options:** There is a need for flexible and streamlined options to efficiently bring releases to regulatory closure. LEPs should be empowered with a number of streamlined options that they can implement themselves without DEEP approval, including those currently available under the current RSRs as well as additional self-implementing options developed for the new program. This theme has emerged in several of the subcommittees:
 - a. Subcommittee 3 (characterization needs will vary by complexity of release);
 - b. Subcommittee 4 (immediate removal actions should be available for releases that can be closed quickly);
 - c. Subcommittee 5 (releases closed within a year should avoid tiering);
 - d. Subcommittee 6 (low-risk releases should have streamlined closure pathways);
 - e. Subcommittee 7 (LEPs should be able to implement some tools without DEEP involvement);
 - f. Subcommittee 8 (closure documentation will vary by complexity of release).
5. **Timing and Deadlines:** Several of the subcommittees have raised issues of timing, and there is consensus that timing and deadlines will play a key role in the success of the new program. Examples of timing elements and deadlines that have been raised thus far include:
 - a. a 14-day deadline to close a contemporaneous release with no sampling requirement
 - b. a 120-day deadline to complete limited removal actions
 - c. a one-year deadline to complete cleanup in order to avoid tier classification of the release and the cleanup effort
 - d. Additional deadlines for tiered releases could include deadlines similar to those in-place today under the current RSRs. Subcommittee 5 (Tiers) made specific recommendations regarding timeframes.

Fine tuning is still required to finalize the various deadlines that have been proposed to date. There is agreement that encouraging closures with the first year is important. Promoting quick clean-ups both from a technical perspective (less time for contamination to spread) and a policy perspective (more certainty in the marketplace) is integral to the RBP.

6. **Early Exits:** All stakeholders agree that early exits will be a critical component of the new program in order to encourage quick and complete cleanup of lower risk releases.
→ **RECOMMENDATION:** Early exit options to close sites and avoid tiering need to be provided.
7. **Coordinated Program Roll-Out:** The success of the RBP is contingent on the right resources and tools being in place on the effective date of the new program. This includes both public and private resources. In addition, RBP forms, instructions, and guidance documents must be developed and ready for distribution prior to or coincident

with the publication/effective date of the RBRP to avoid a repeat of the EUR form impasse.

B. Additional Items Requiring Further Review

1. **Harmonizing Categories of Releases:** Several groups have attempted to impose order on a varied spectrum of releases by grouping the releases into categories (e.g., reportable versus not reportable; tiers; lower-risk releases eligible for streamlined closure; level of closure documentation and credentials required to close various categories of releases). All of these different categories will need to be integrated/harmonized into a cohesive system.
 - **RECOMMENDATION:** It will not be necessary to retain all of the category labels used by subcommittees as the regulations are actually drafted. That said, once draft regulatory text is available, the Working Group will need to carefully review to make sure that all of the interrelated concepts have been captured as intended.
2. **Method 3:** Subcommittee 7 (and to a lesser extent Subcommittee 6) suggest including a risk assessment option like the Massachusetts Method 3 into the RBRP. The Department has indicated that the Department of Public Health (DPH) has the statutory authority to engage in human health risk assessment, and any examination of Method 3 and other risk management tools would need to include DPH.
 - **RECOMMENDATION:** The Department has agreed to revisit the Method 3 concept with a larger group of stakeholders, including DPH. The Department should reach out to its DPH counterparts immediately (if it has not already done so) and convene a subcommittee including members of the Working Group and representatives from DPH to further discuss Method 3 and other tools for assessing and managing risk under the RBRP.
3. **Existing Law:** The new program will need to be integrated with existing programs, particularly the federal programs that would control (e.g. PCBs under TSCA). The Transition Advisory Group (TAG) has already begun examining these issues.
 - **RECOMMENDATION:** Once regulatory text is released in draft, leverage the work of the TAG to permit the Working Group to suggest statutory and regulatory changes needed to facilitate integration and to avoid confusing and/or conflicting regulatory compliance requirements.
4. **Special Circumstances:** Between the Phase I and Phase II subcommittee processes, ad hoc committees were convened to discuss residential property and historic fill. At the time, the ad hoc committees could offer only conceptual recommendations because the overall contours of the new program were not yet clear.
 - **RECOMMENDATION:** Once draft regulatory text is available, the ad hoc committees should be reconstituted or reconvened to examine residential property, historic fill, and other special circumstances in light of the program as it

is taking shape. A second round of discussion on these topics would permit more targeted recommendations, and it would be most useful when there is draft regulatory text that the ad hoc committees can react to.

C. Closing Remarks

In conclusion, the Working Group believes that the topics for the eight subcommittees that have been established to date lay out the framework for the RBRP from discovery of contemporaneous and historical releases through reporting, investigation, remediation, and preparation of appropriate closure documentation. As noted with the comments provided above and as noted frequently during the Working Group meetings, there are a large number of important issues and details that remain to be thought through including but not limited to whether there will be a second class of licensed or trained professionals, specific requirements for historic fill, applicability to releases at residential properties, the ability to close releases with site-specific risk assessment tools, and the need to revise or eliminate other statutes and regulations. In addition, there are many details that need to be added to the framework to create implementable regulations.

Figure 1

Basic Release Based Decision Tree

06-23-2022

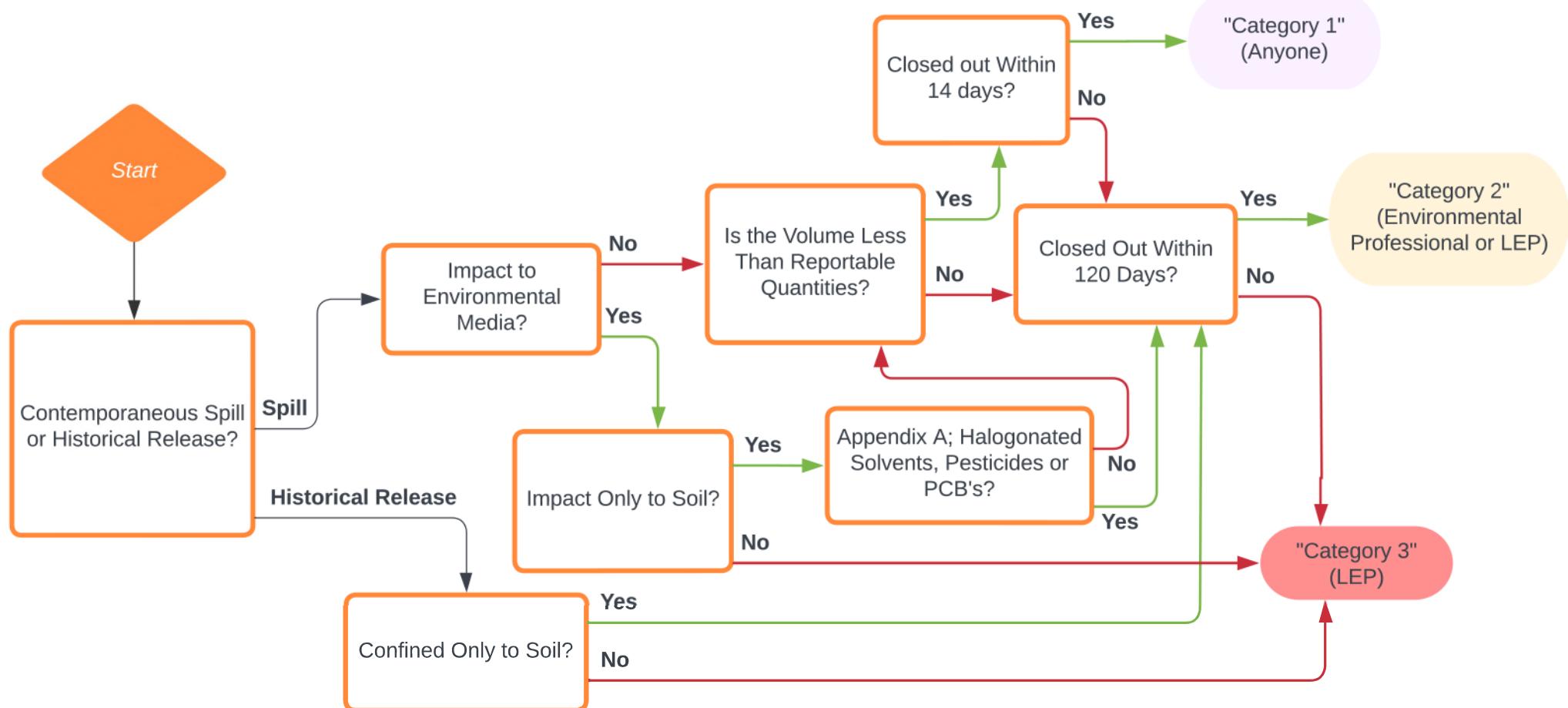


Table 1

	Category I	Category II	Category III
Spills/Historic Release	Contained / No Impacts to Soil/GW	Controlled / Impacts to Soil	Ongoing / Impacts to Soil and Groundwater
CT DEEP Reporting Requirements	24 hours via telephone if hazardous / 72 hours via telephone if non-hazardous	24 hours via telephone if hazardous / 72 hours via telephone if non-hazardous	72 hours via telephone if receptors / 14 days via telephone if no receptors
SEH Potentially Required (Significant Environmental Hazard)			X
ERU Closure	X		
TEP Closure	X	X	
LEP Closure	X	X	X
Historical releases		X	X
Contemporaneous releases (Spill)	X	X	X
Closure Timeframe Requirements	14 Days	120 Days	365 Days or Tier Classify
Closure Reporting Requirements	ERU Report Form	Simplified Verification Form	Verification

ERU - Emergency Response Unit

TEP - Technical Environmental Professional

LEP - Licensed Environmental Professional