

Into the MStC: ASTM's E3488-25 Standard Guide for Moving Sites to Closure (MStC) for Petroleum Underground Storage Tank (UST) Release

Pennsylvania Storage Tank Advisory Committee

September 2, 2026

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US EPA Office of Underground Storage Tanks



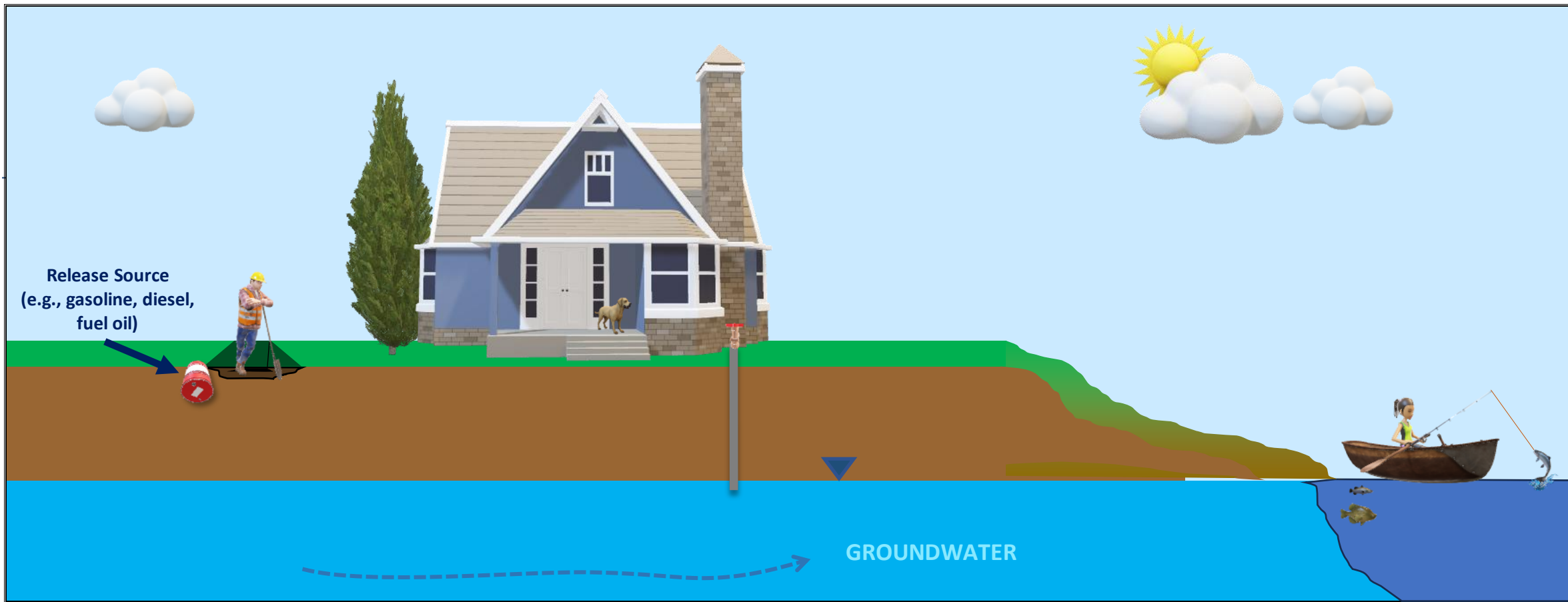
Today's Discussion Outline

1. Background
2. Why MStC?
3. Free Product clarification
4. Threat Assessment policy statement
5. Implementation

Evolution of Petroleum UST Corrective Action

	1980s	1990s	Current Best Practice
Cleanup goals	Universal Worst case exposure	Source, pathway, receptor Site-specific target concentrations	Screening distances Stability Alternative end points
Remedial Methods	Physical extraction	<i>in-situ</i> methods	Recoverability Natural Source Zone Depletion (NSZD) Enhanced biodegradation
Natural Degradation	A mystery	Tests for biodegradation	Rely on biodegradation Calculate rate

Source, Pathways, and Receptors for Petroleum UST Releases



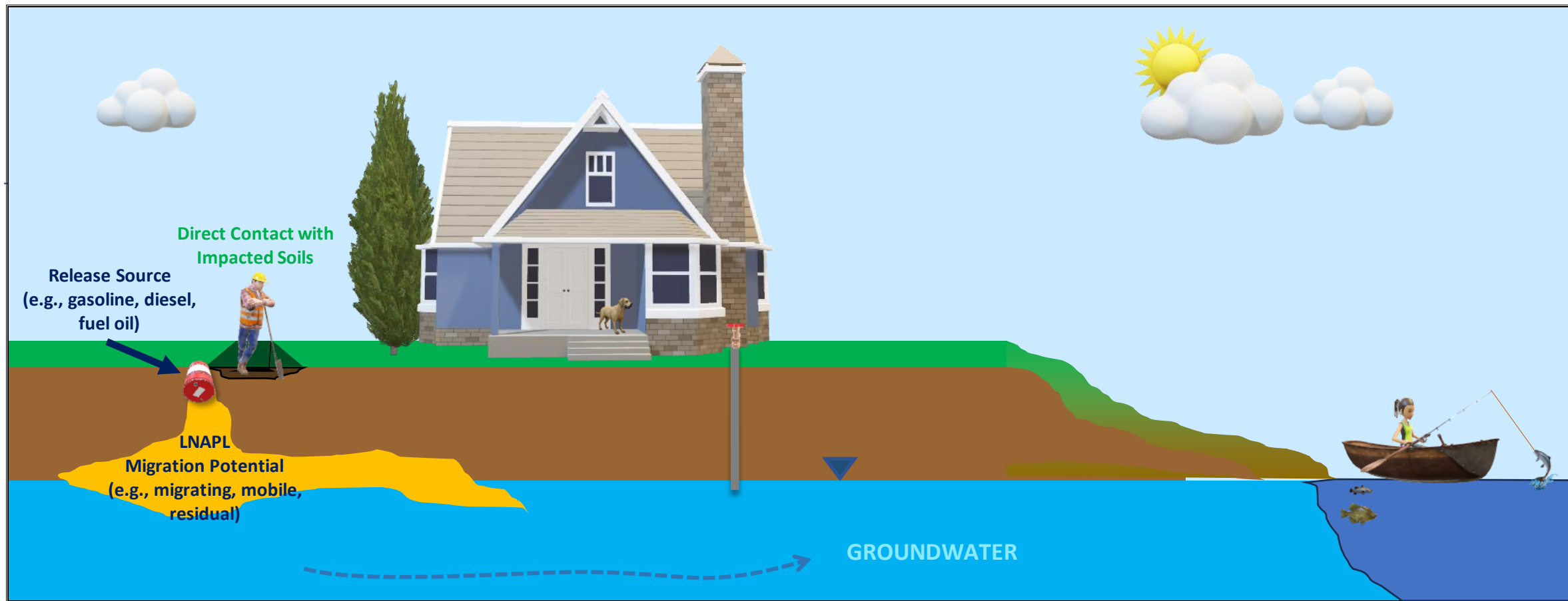
COLOR KEY

Sources: identified with dark blue text

Migration Pathways: identified with lighter blue text

Receptors and Exposure: identified with green text

Source, Pathways, and Receptors for Petroleum UST Releases



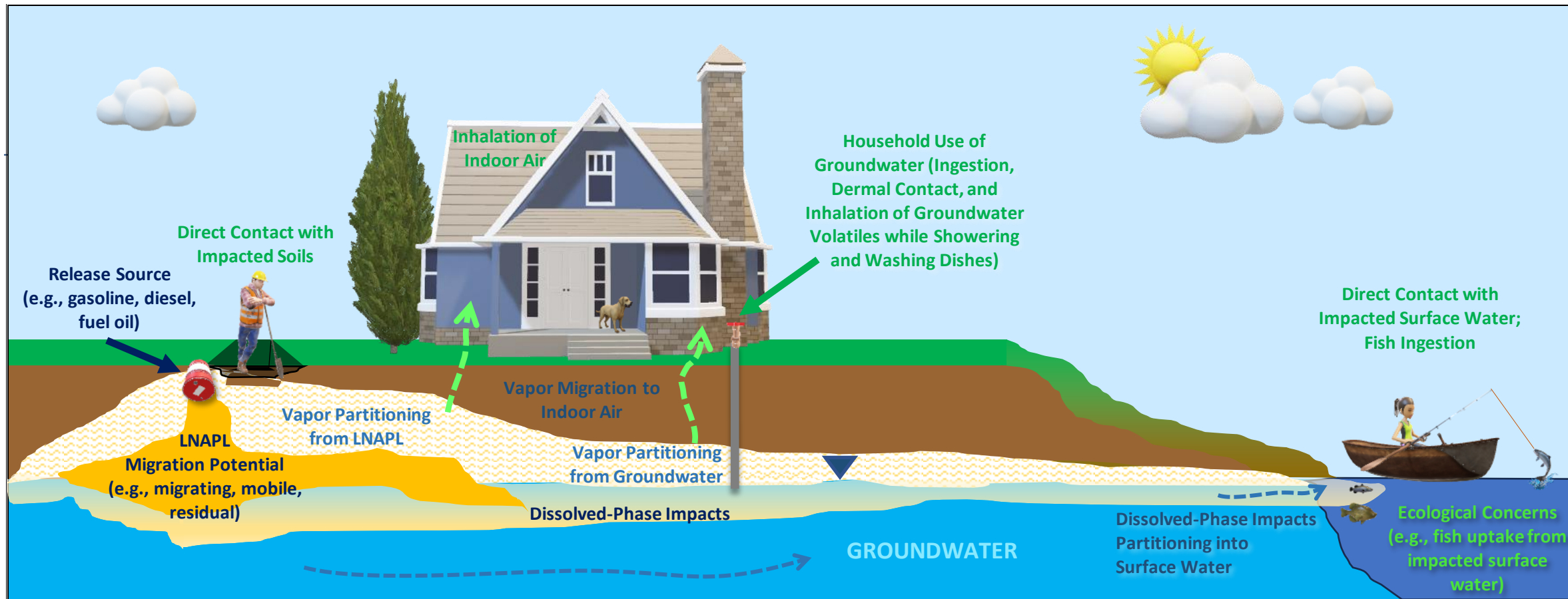
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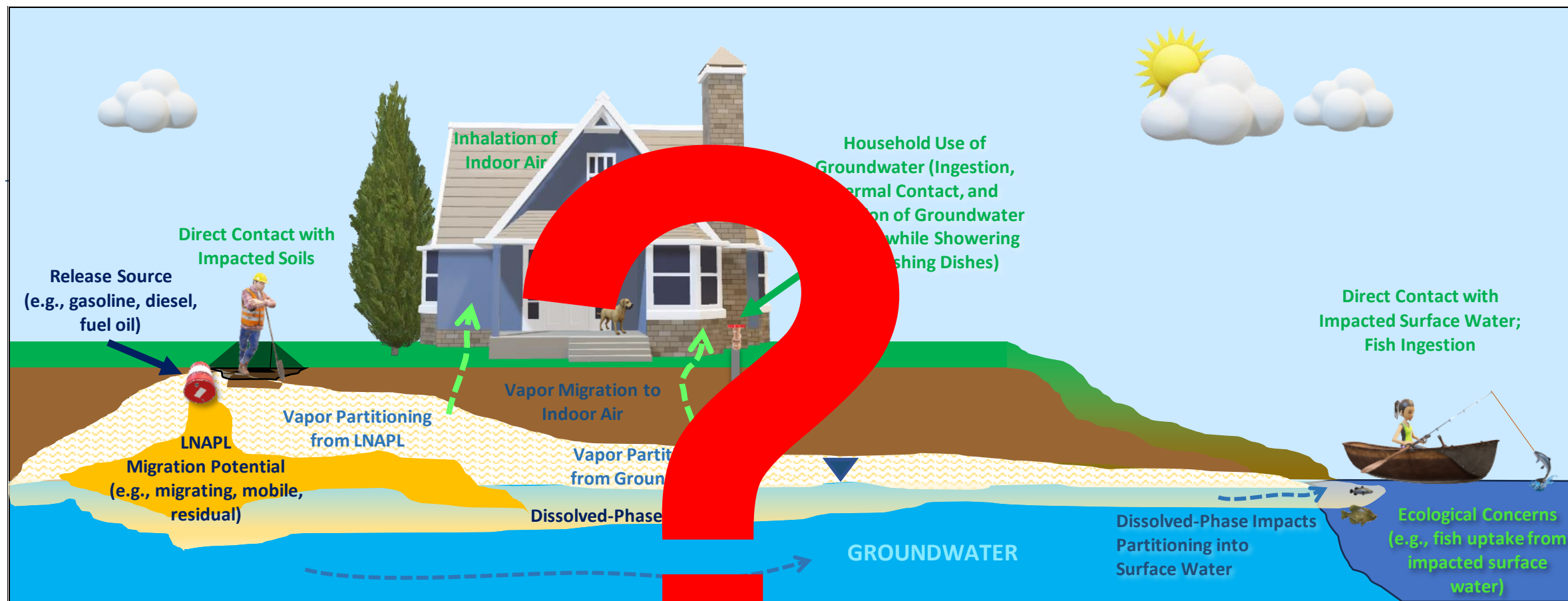
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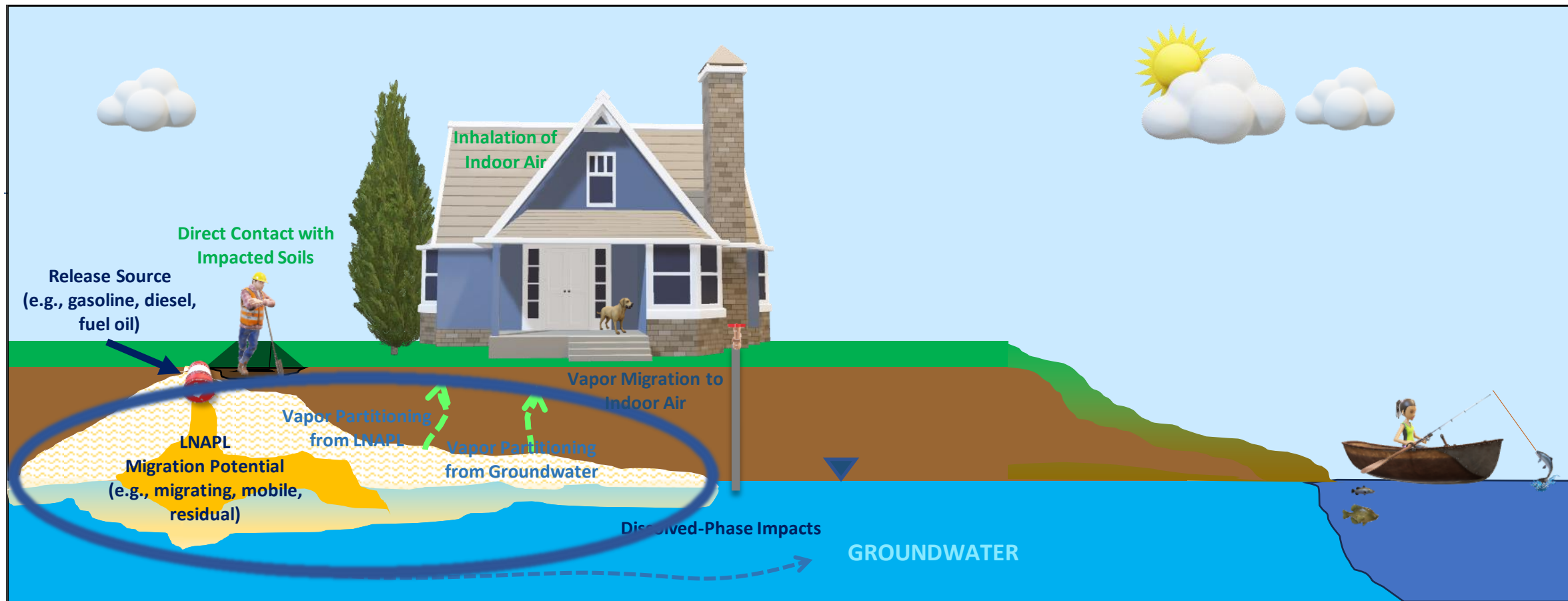
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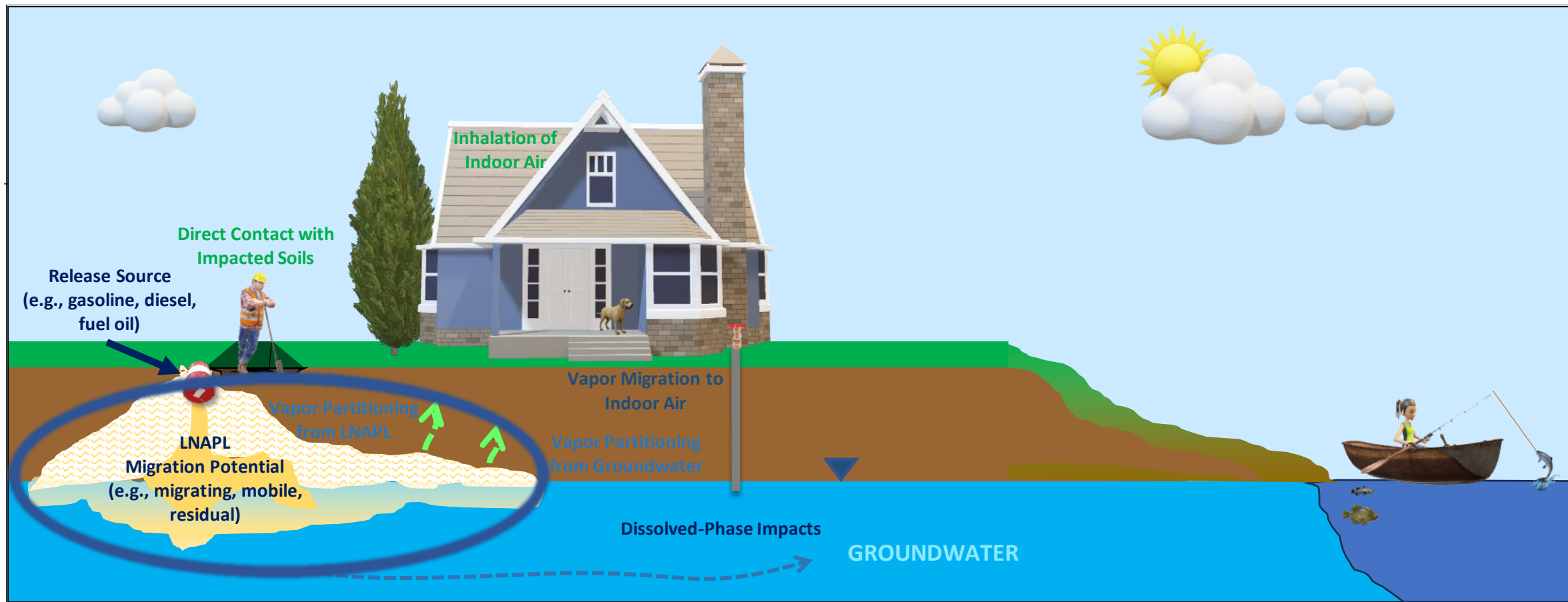
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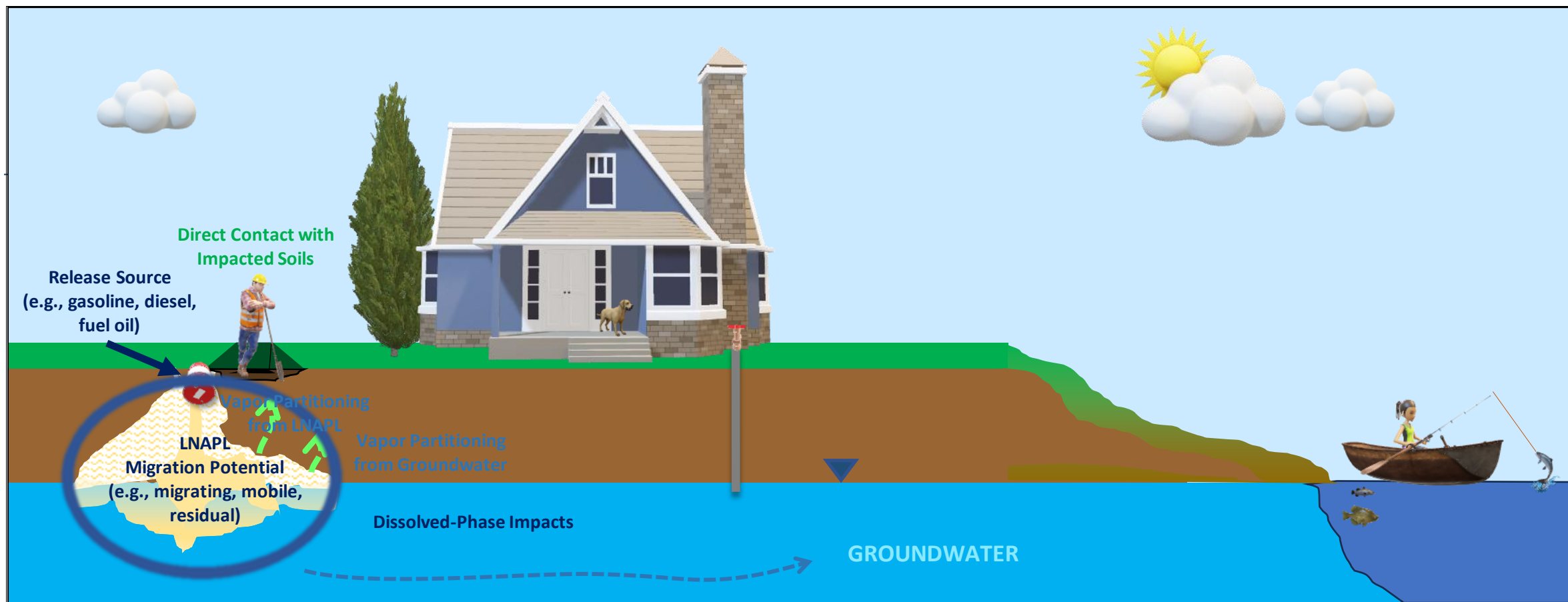
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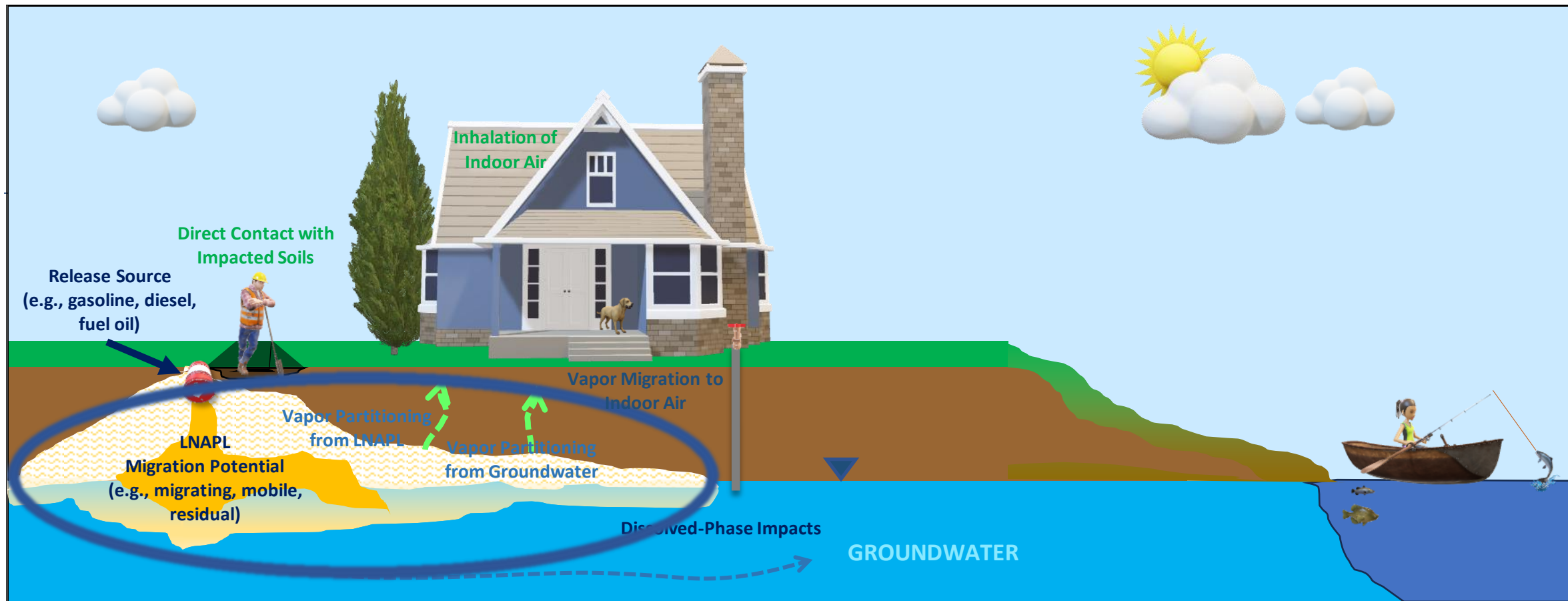
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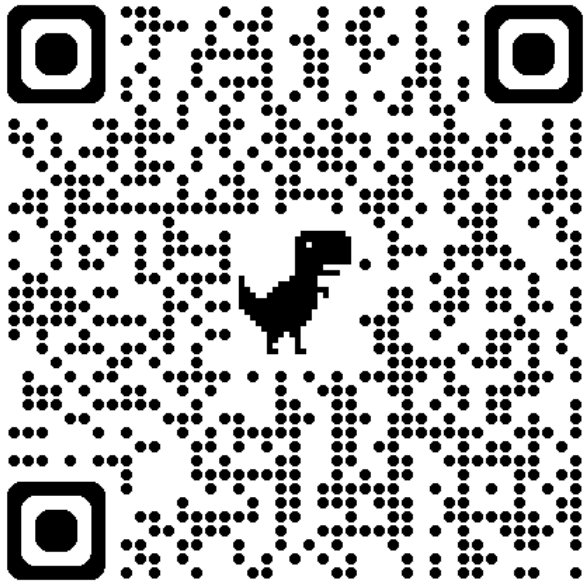
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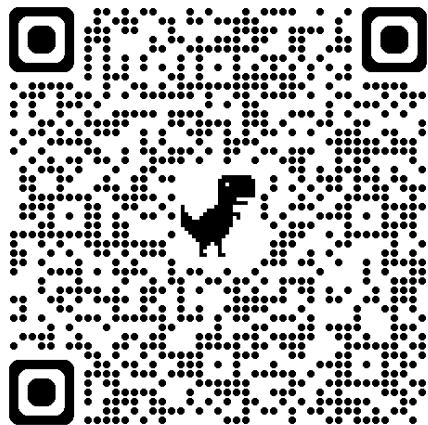
Clarification of Free Product Removal Requirements



EPA UST Technical Compendium: Release Investigation, Confirmation, and Corrective Action; Question 6:

- LNAPL vs. Free Product.
- 40 CFR 280.64 requires LNAPL recovery if it is migrating to clean areas.
- 40 CFR 280.65 and .66 require assessment and remediation of LNAPL if needed to protect human health and the environment.

Reassessing Exposure Threats from Petroleum Underground Storage Tank Releases



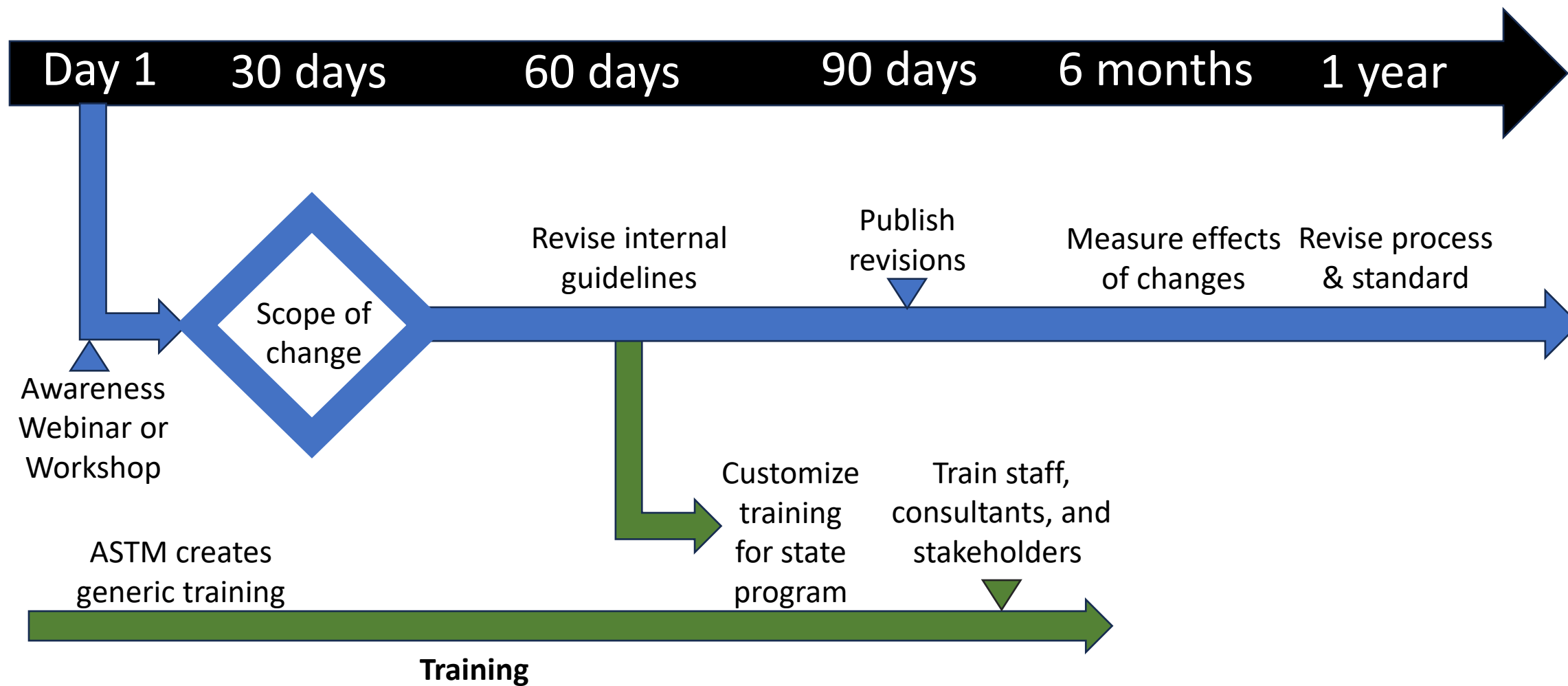
Policy statement encourages Implementing Agencies to:

- Assess current threats at open sites using the latest science.
- Focus resources on high-threat sites and close low-threat sites.
- Make the assessment process open so owners can conduct assessments.
- Consider the ASTM Moving Sites to Closure standard as a framework.

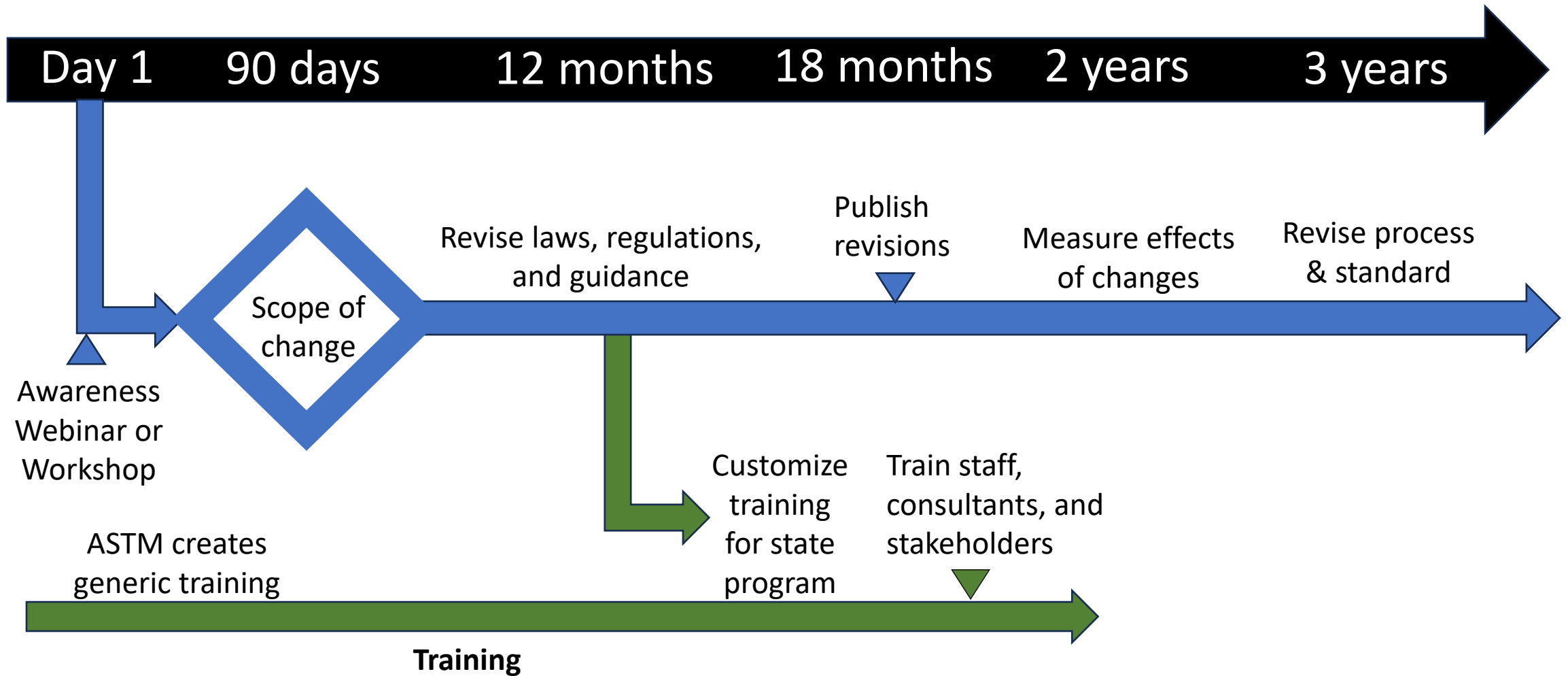
Major Changes from Prior Approaches

- Assess current threats.
- Consistent with groundwater non-degradation goals.
- Stability vs. concentrations – more descriptive than numeric.
- Groundwater stability by trends or retraction.
- LNAPL may be acceptable if not migrating.
- Less monitoring of natural attenuation.
- Review remediation effectiveness.

Pathway to MStC Adoption



Significant Barriers to MStC Adoption



Interest, Outreach, and Adoption for MStC

Adopted, issued guidance	
North Carolina	
Adopted, accepting low-threat proposals	
Washington, DC	
Wisconsin	
Adopting	
Delaware	
Maryland	
Pennsylvania	
Virginia	
West Virginia	
Illinois	
Michigan	
Missouri	
Texas	
Wyoming	
Montana	

Interested in learning more
Rhode Island
Puerto Rico
New York
Alabama
Mississippi
Tennessee
Ohio
Louisiana
Colorado
Fort Peck Reservation Tribes
North Dakota
South Dakota
Utah

Questions?

Schedule Training?

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