REMEDIATION ROUNDTABLE

June 9, 2015

Connecticut Department of Energy and Environmental Protection

www.ct.gov/deep/remediationroundtable

Agenda

- Updates
- Risk-Based Decision-Making and the Transformation Roadmap
- APS/Alternative Criteria Request Process
- Analytical Methods for Petroleum Hydrocarbons
- SEH Statutory Changes
- Something Completely Different

Website Updates

- TCE Developmental Risk Guidance
- Urban Soil Discussion Document
- PREPARED Brownfields Municipal Workbook
- DEEP's Risk-Based Decision Making Report
- 1996 RSR Criteria Derivation

- Coming soon…
  - Petroleum Analytical Methods Guidance Document
  - Updated APS/Alternative webpage
  - Updated SEH webpage

Announcements

- QA/QC Workgroup:
  - In response to May 2014 Roundtable survey
    - Planning DQA/DUE Training
    - Updates on RCPs
    - Improving communication between EP and labs (factsheet in the works)
- Revisions to ELUR Instructions and Guidance - please send suggestions to DEEP.ELUR@ct.gov
- Wave 2 Public Discussion Document: Revisions to A-2 Survey Regulations coming July 2015

Announcements

ITRC - New Documents

Integrated DNAPL Site Characterization and Tools Selection (ISC-1) April 2015

Decision Making at Contaminated Sites: Issues and Options in Human Health Risk Assessment (RISK-3) Jan 2015

ITRC - Classroom Training and Online Training

full schedule at

http://www.itrcweb.org/Documents/TeamResources_OutreachMaterials/ITRC-2015-Classes-050715.pdf

INTERSTATE TECHNOLOGY & REGULATORY COUNCIL

Advancing Environmental Solutions

http://www.itrcweb.org

Roundtable Survey, March 2015

- Who?
  - 800+ people on listserv
  - 39 people took survey

- "Participating is a productive use of time" 85% YES
  - RT Length & Presentation Length 85%
  - Quarterly Frequency 75%

Roundtable Survey, March 2015

- "RT topics are useful and informative"
  84% YES
- "PowerPoint Slides are useful"
  94% YES
- "Q&A Newsletter is useful"
  94% YES

Roundtable Survey, March 2015

- Audience Interaction
  - Sufficient opportunity to ask questions 85% YES
  - "Do you see the need for increased audience interaction?" 41% YES / 59% NO
  - More Breakout Sessions?
    - Avg score = 2.3 (neutral)
    - 68% willing to participate
  - Workgroup participation 71% YES

Roundtable Survey, March 2015

- Room for Improvement
  - ✓ Provide clearer picture of transformation priorities and schedule
  - ✓ Reading and answering anonymous questions
  - ✓ Interactive dialog
  - ✓ Email questions before the meeting
  - ✓ Hand-held microphone

Questions / Comments

Please **state your name** and speak loudly.

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Risk-Based Decision-Making Report and the Transformation Roadmap

Robert Bell
Remediation Division
Assistant Director

Jan Czeczotka
Remediation Division
Assistant Director

Connecticut Department of Energy and Environmental Protection

Risk-Based Decision-Making Recommendation Report

Final Report

April 15, 2015

Connecticut Department of Energy and Environmental Protection
79 Elm Street, Hartford, CT 06106-5127 www.ct.gov/deep
Commissioner Robert Klee

Risk Evaluation Process

- DEEP tasked with evaluation of risk-based decision-making for site cleanup
  - Use independent experts, broad national experience
  - CDM Smith selected, competitive process
- Scope developed by DEEP, DPH and stakeholder rep
- CDM Report – August 29, 2014
- Public Comments – October 1, 2014
- DEEP Report – April 15, 2015

CDM's Themes – where CT is

- CT's cleanup standards (RSRs) are similar to surrounding states
- CT's risk assessment approach for polluted soil is generally valid, similar to EPA/many states
- CT's human health risk approaches are in top half of "best practices" of states CDM evaluated
- Opportunities for change
  - 6 primary recommendations from CDM

Action Plan - highlights

<u>Ecological Risk</u>

- Develop guidance for 3-tiered eco risk assessment
- Include adapting approaches used in MA and BC
- Drafts available for public input in 2016

Action Plan - highlights

<u>Update Numeric Criteria</u>

- Convene Science Advisory Panel [2016]
  - Input and feedback on methodologies for deriving criteria
  - After recommendations from SAP, draft criteria proposals for RSR amendment process
- Post on web Additional Polluting Substance recommended numeric values [June 2015]
- Post on web info on derivation of 1996 RSR criteria [Completed - April 2015]

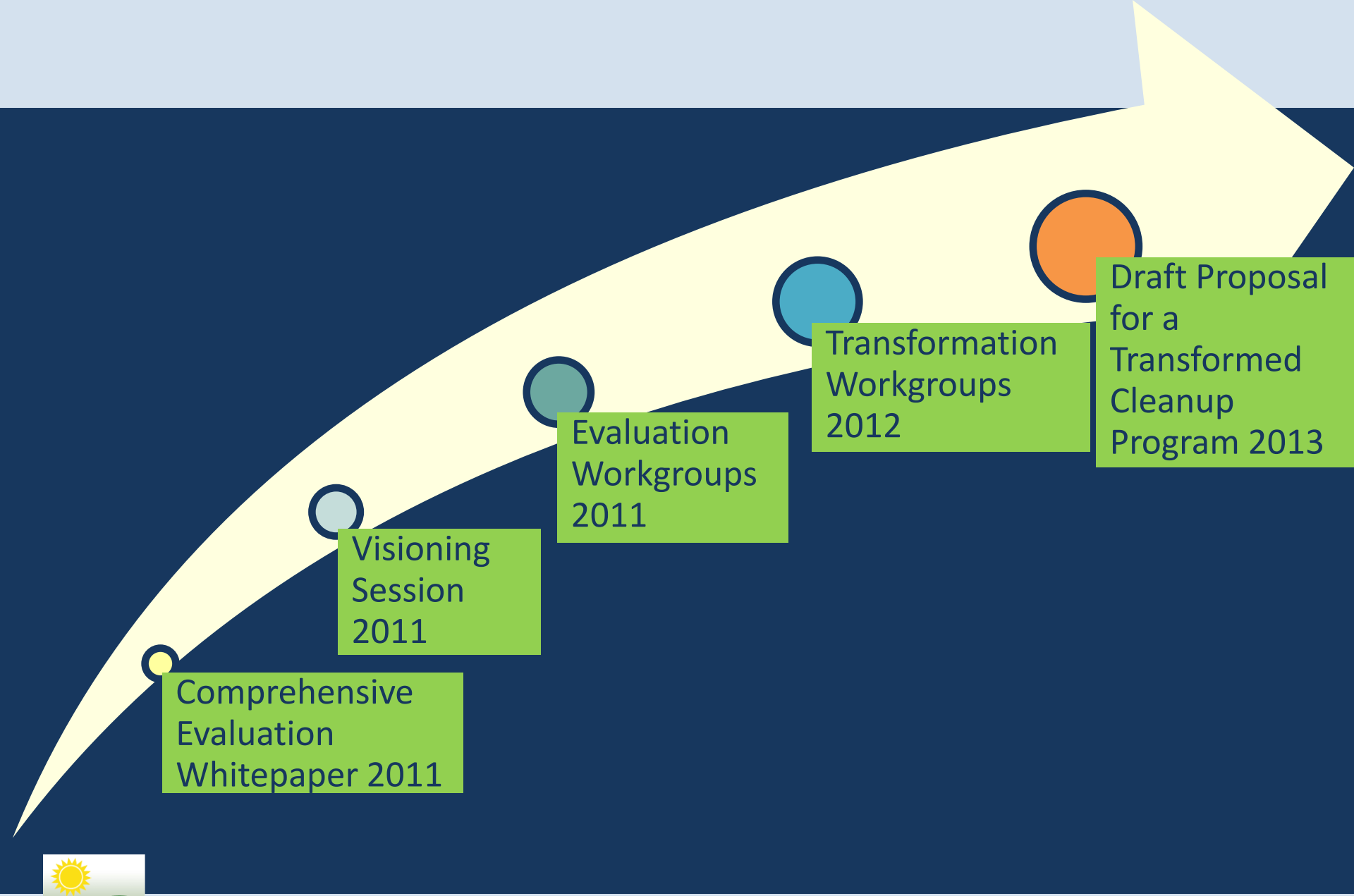
Action Plan - highlights

<u>Risk-based flexible risk management approaches</u>

- RSR Wave 2 public hearing draft – early 2016. Examples:
  - Alt GWPC formulas
  - Alt PMC self-implementing, site-specific
- Deed Notice regs public hearing draft – 2016
- Groundwater Reclassification for some areas – 2015/2016
- Other more narrowly focused actions

Cleanup Transformation

Transformation is …



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JAN CZECZOTKA


Transformation Topics
Wave I RSR Amend-ments
Municipal Liability Relief
Expanded Institutional Control Authority
Risk Evaluation
SEHN
Wave 2 RSR Amend-ments
State-Wide GW ReClass
Release Reporting Regulations
Soil Reuse Regulations
Information Mgmt
Unified Program Elements
Historical Releases

2013

- RSR Wave 1 (effective June 27, 2013)
- Municipal Liability Relief (effective July 2013)
- New Authority: Expanded Institutional Controls (October 2013)
- SEH Statutes (amended 2013, effective July 2015)

2014

- Risk Assessment Evaluation (Started August 2013)
- Public Discussion on Regulatory Reform
  - *Wave 2 Cleanup Standards*
  - *Spill Reporting*
  - *Soil Reuse*

2015

- Significant Hazard Phase-in (of 2013 amendments)
- Risk Evaluation completed
- RSR Wave 2, Spill Reporting, and Soil Reuse regulation drafting

2016

- Science Advisory Panel
- Ecological Risk Assessment guidance
- Soil Reuse Regulations adoption process

2016

- RSR Wave 2 regulations adoption process
- Statewide Groundwater Reclassification process
- Information management system and website upgrade
- Supporting Legislation as needed


Transformation Topics
Wave I RSR Amend-ments
Municipal Liability Relief
Expanded Institutional Control Authority
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Questions / Comments

Please **state your name** and speak loudly.

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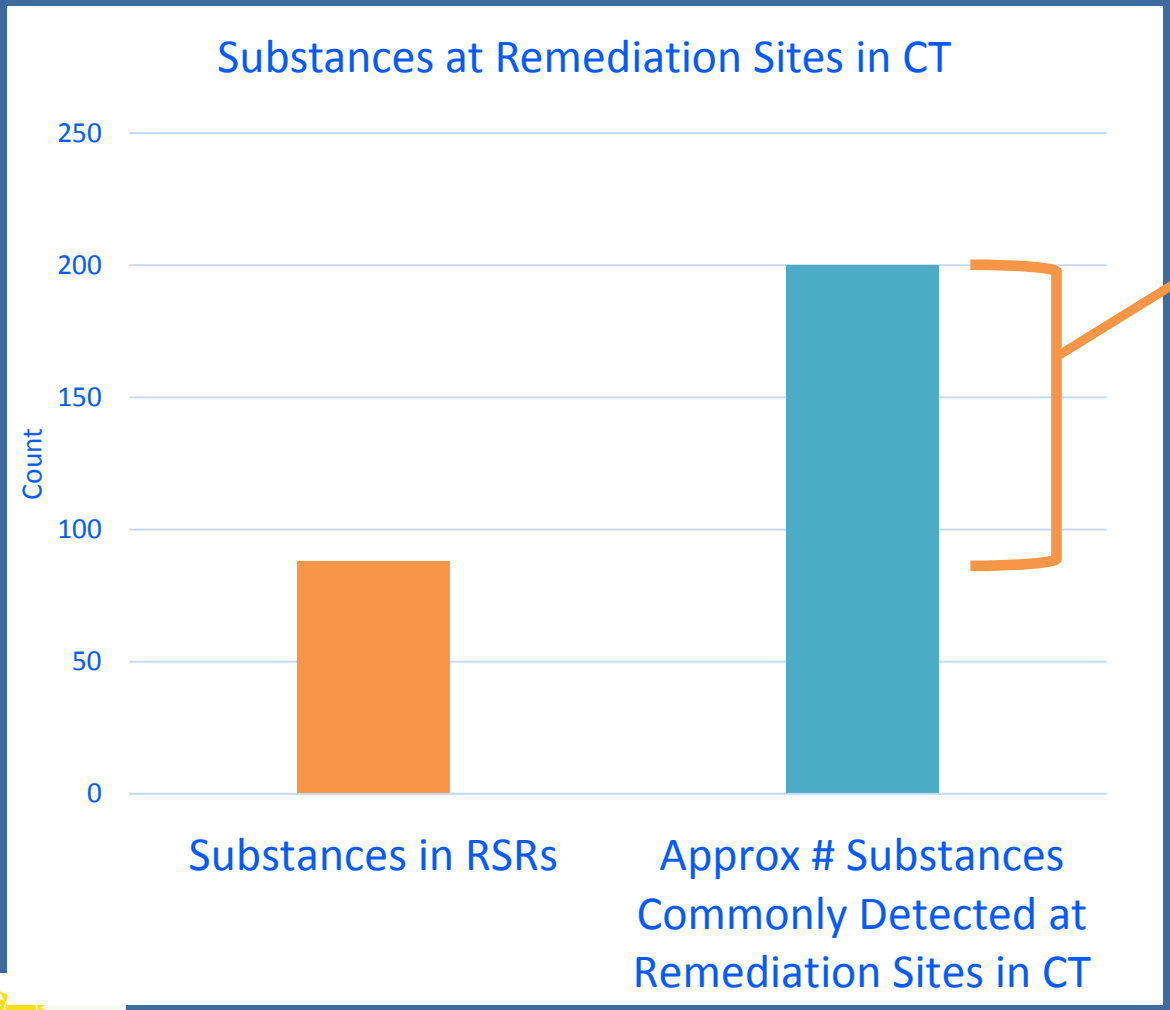
Criteria Request and Approval Process

Craig Bobrowiecki
Environmental Analyst II
Remediation Division

Traci Iott
Supervising Environmental Analyst
Planning & Standards Division

Connecticut Department of Energy and Environmental Protection

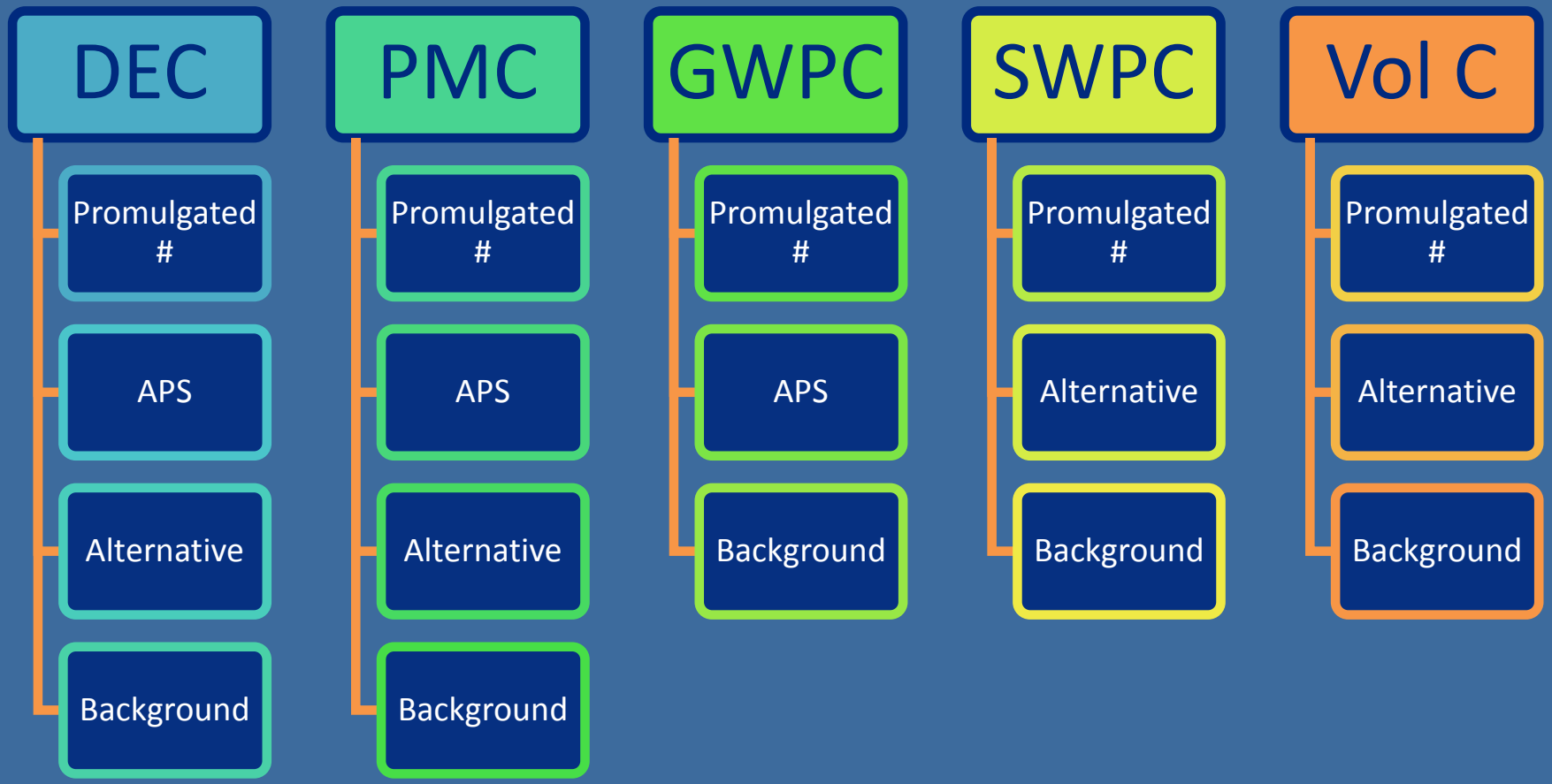
Substances at Remediation Sites in CT



Substances without remediation criteria

RSRs require clean up to remediation criteria or background

Remediation Goal Options Under RSRs



Risk Report: Update Criteria

- Per Risk Report recommendations, DEEP to have a process to review/revise RSR criteria
  - Establish Independent Science Advisory Board
  - DEEP, DPH and SAB work on methodology for criteria update
  - After SAB process, seek public input
  - Then proceed to a regulatory adoption process

Fall 2015

2016

Dependent on time needed to work with SAB

Risk Report Criteria Commitment

- Comprehensive Criteria review and update process to take time
- In interim, DEEP committed to improving on-going criteria activities
  - Additional Polluting Substances (APS)
  - Alternative Criteria

DEEP Additional Recommendation

Interim Tiered APS Process

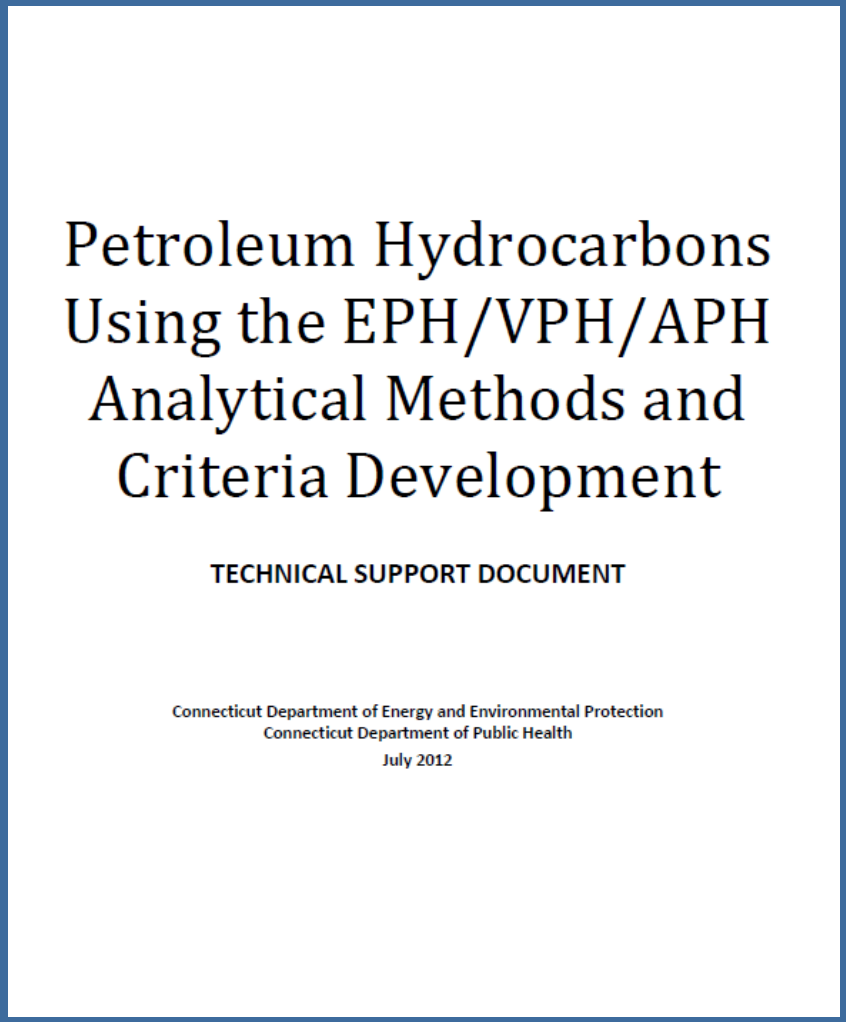
1. Select from list of DEEP Recommended APS/Alt Criteria — June 2015
2. Calculate APS/Alt criteria using RSR default assumptions — Fall 2015
3. Calculate APS/Alt criteria using Site-specific assumptions or risk assessment — Fall 2015

Developing Interim Recommendations

- Working with DPH
- Updating toxicity values
- Using 1996 RSR / 2003 Volatilization Criteria equations
- Developing recommended values for approximately 100+ chemicals for all criteria types
- Values to be updated periodically as needed

Providing Updated Values

- Risk Report identified transparency as a component of best practices
- DEEP Concurs
  - Values to be published by end of June 2015
  - Technical Support Document will be provided
  - Informational meeting to be scheduled for July 2015

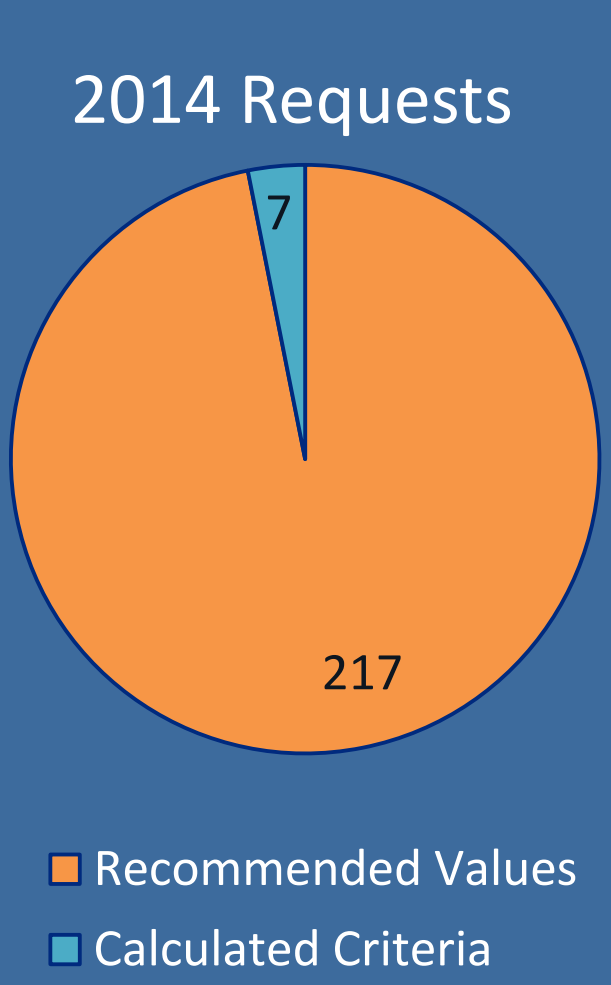


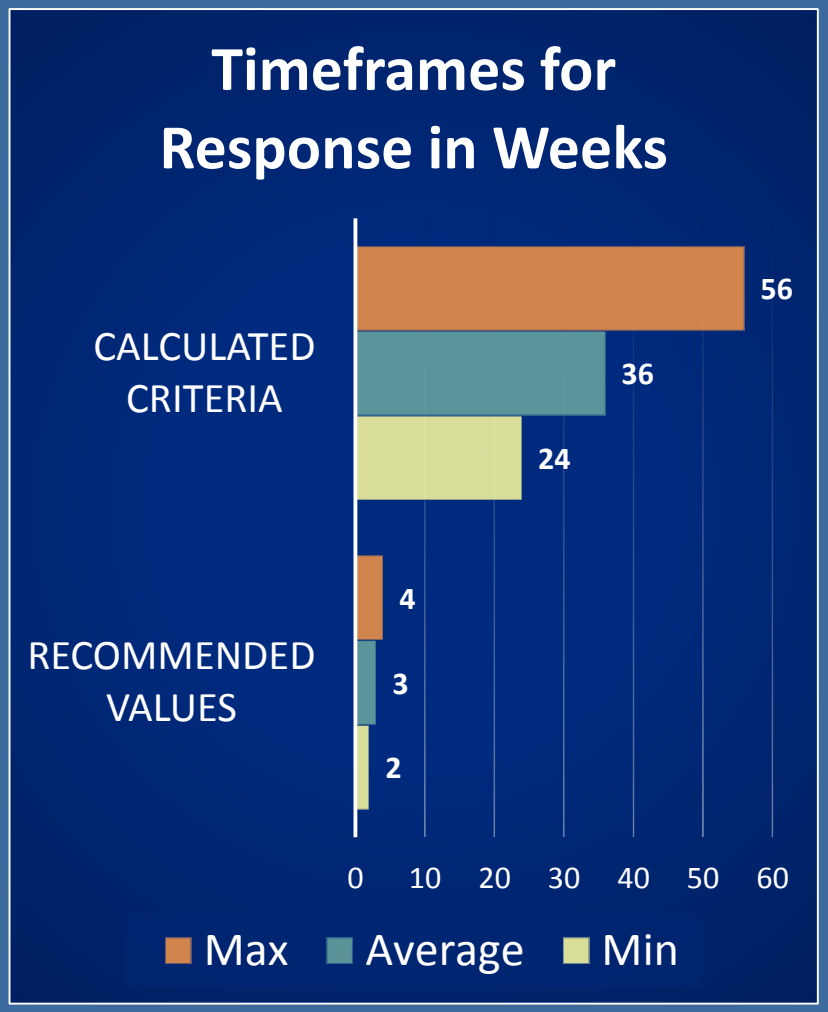
Options for Your Site Under RSRs

- Use promulgated criteria
- Request DEEP recommended values
- Calculate site-specific criteria
- Background

No Change to Available Options

Recommended Values = Quick Approval





Connecticut Department of Energy and Environmental Protection

CRAIG BOBROWIECKI

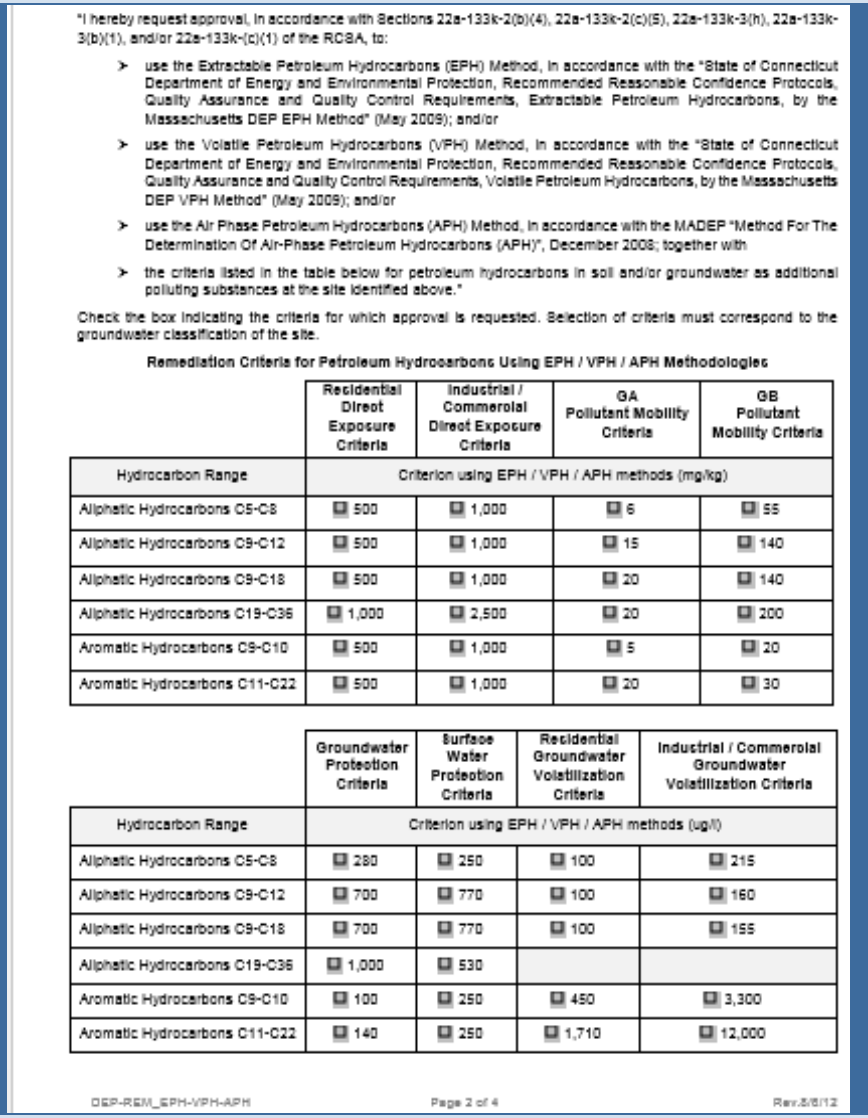
Transition to 2015 Recommendations

- Criteria requests which have been already approved are still VALID
- Requests for recommended criteria received by COB (4:30 PM) June 30, 2015 will be approved based on pre-6/30/15 recommendations
- Once published, use 2015 recommended values for future requests to expedite approvals
- OR….develop site-specific risk based or background based remediation criteria for review and approval per RSRs

In all cases, need site-specific request and written approval to be valid

2015 Recommended Additional/Alternative Numbers

- Remember Transmittal Form
- Request form similar to petroleum hydrocarbon form in development for requesting these values
- Expedited review and approval (1-3 week turn around)



"I hereby request approval, in accordance with Sections 22a-133k-2(b)(4), 22a-133k-2(c)(5), 22a-133k-3(h), 22a-133k-3(b)(1), and/or 22a-133k-(c)(1) of the RCSA, to:

- use the Extractable Petroleum Hydrocarbons (EPH) Method, in accordance with the "State of Connecticut Department of Energy and Environmental Protection, Recommended Reasonable Confidence Protocols, Quality Assurance and Quality Control Requirements, Extractable Petroleum Hydrocarbons, by the Massachusetts DEP EPH Method" (May 2009); and/or
- use the Volatile Petroleum Hydrocarbons (VPH) Method, in accordance with the "State of Connecticut Department of Energy and Environmental Protection, Recommended Reasonable Confidence Protocols, Quality Assurance and Quality Control Requirements, Volatile Petroleum Hydrocarbons, by the Massachusetts DEP VPH Method" (May 2009); and/or
- use the Air Phase Petroleum Hydrocarbons (APH) Method, in accordance with the MADEP "Method For The Determination Of Air-Phase Petroleum Hydrocarbons (APH)", December 2008; together with
- the criteria listed in the table below for petroleum hydrocarbons in soil and/or groundwater as additional polluting substances at the site identified above."

Check the box indicating the criteria for which approval is requested. Selection of criteria must correspond to the groundwater classification of the site.

Remediation Criteria for Petroleum Hydrocarbons Using EPH / VPH / APH Methodologies

	Residential Direct Exposure Criteria	Industrial / Commercial Direct Exposure Criteria	GA Pollutant Mobility Criteria	GB Pollutant Mobility Criteria
Hydrocarbon Range	Criterion using EPH / VPH / APH methods (mg/kg)			
Aliphatic Hydrocarbons C5-C8	500	1,000	6	55
Aliphatic Hydrocarbons C9-C12	500	1,000	15	140
Aliphatic Hydrocarbons C9-C18	500	1,000	20	140
Aliphatic Hydrocarbons C19-C36	1,000	2,500	20	200
Aromatic Hydrocarbons C9-C10	500	1,000	5	20
Aromatic Hydrocarbons C11-C22	500	1,000	20	30

	Groundwater Protection Criteria	Surface Water Protection Criteria	Residential Groundwater Volatilization Criteria	Industrial / Commercial Groundwater Volatilization Criteria
Hydrocarbon Range	Criterion using EPH / VPH / APH methods (ug/l)			
Aliphatic Hydrocarbons C5-C8	280	250	100	215
Aliphatic Hydrocarbons C9-C12	700	770	100	160
Aliphatic Hydrocarbons C9-C18	700	770	100	155
Aliphatic Hydrocarbons C19-C36	1,000	530		
Aromatic Hydrocarbons C9-C10	100	250	450	3,300
Aromatic Hydrocarbons C11-C22	140	250	1,710	12,000

DEP-REM_EPH-VPH-APH Page 2 of 4 Rev.5/5/12

Summary

- Existing approvals remain valid
- Choices:
  - Use recommended values to expedite approvals
    - Updated values June 2015
    - Use DEEP request form
    - Informational meeting July 2015
  - Develop site-specific criteria
  - Use background

Questions / Comments

Please speak loudly
so everyone can hear
your question!

APS questions contact:

Craig Bobrowiecki
860-424-3798
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Traci Iott
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traci.iott@ct.gov

or

www.ct.gov/deep/remediationroundtable

Guidance for Selection of Analytical Methods to Characterize Petroleum Releases

Paul Clark
Environmental Analyst 3
Site Assessment and Support Unit

Allison Forrest
Environmental Analyst 2
Site Assessment and Support Unit

Development

- To assist in the selection of appropriate analytical methods for characterizing a petroleum release

- The QA/QC Workgroup is formed by a broad base of professionals:
  - LEPs
  - Laboratory personnel
  - DPH Laboratory Manager & Staff
  - EPA
  - DEEP
  - CT Lab Advisory Committee

Purpose

- In 2008, 55% of over 8,000 releases in Connecticut were petroleum products
- Provides details on the individual methods and their analytes for petroleum products
  - Based on “Analytical Methods Used to Characterize Petroleum Releases” on the DEEP website
    - http://www.ct.gov/deep/cwp/view.asp?a=2715&q=324956&deepNav_GID=1626
  - “Sampling and Analytical Methods for Underground Storage Tank Closure”
    - http://www.ct.gov/deep/cwp/view.asp?a=2692&q=322592&deepNav_GID=1652

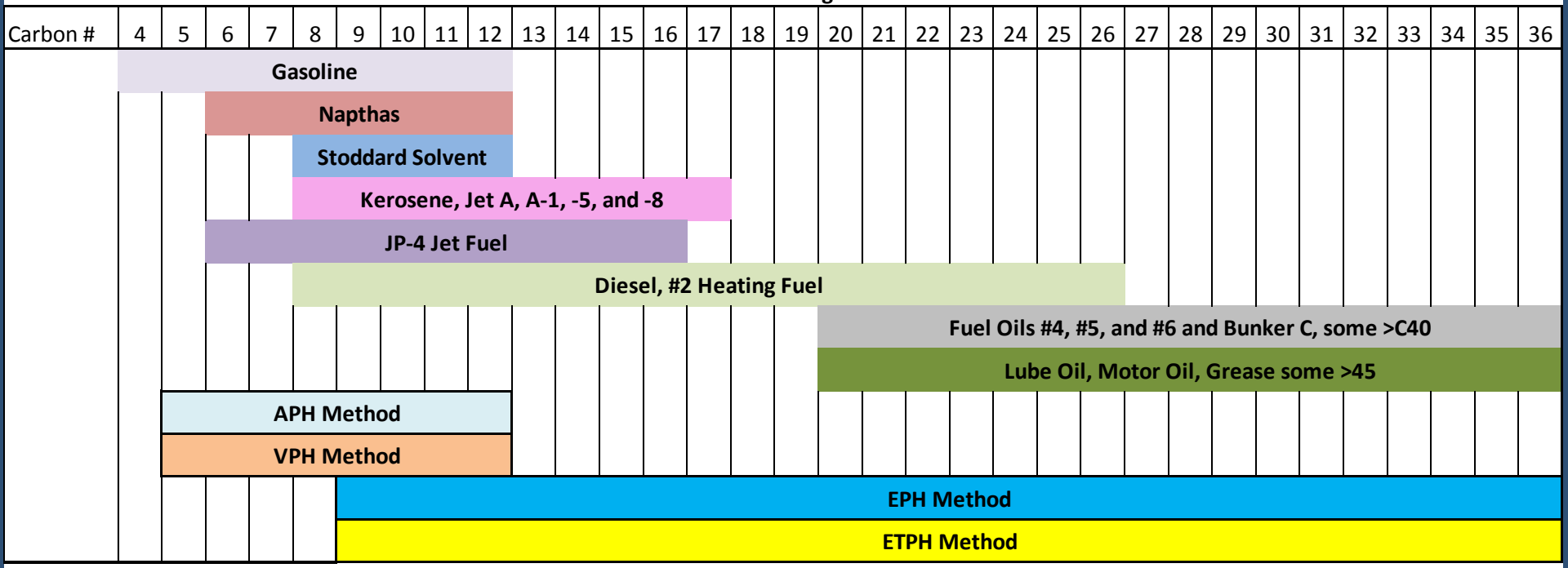
Table of Contents

- Introduction
- Suggested Analytical Methods for Evaluation of Petroleum Releases
- Analytical Methods
  - ETPH
  - EPH
  - VPH
  - APH
  - GC/MS Methods for VOCs (Methods 8260, 524.2 and 524.3)
  - SVOCs (Method 8270)
  - PCBs (Method 8082)
  - Metals
  - Vapor Methods
  - Additives
- Question and Answer

Carbon Ranges of Commonly Used Petroleum Products and Analytical Methods

Figure 1

Carbon Range*



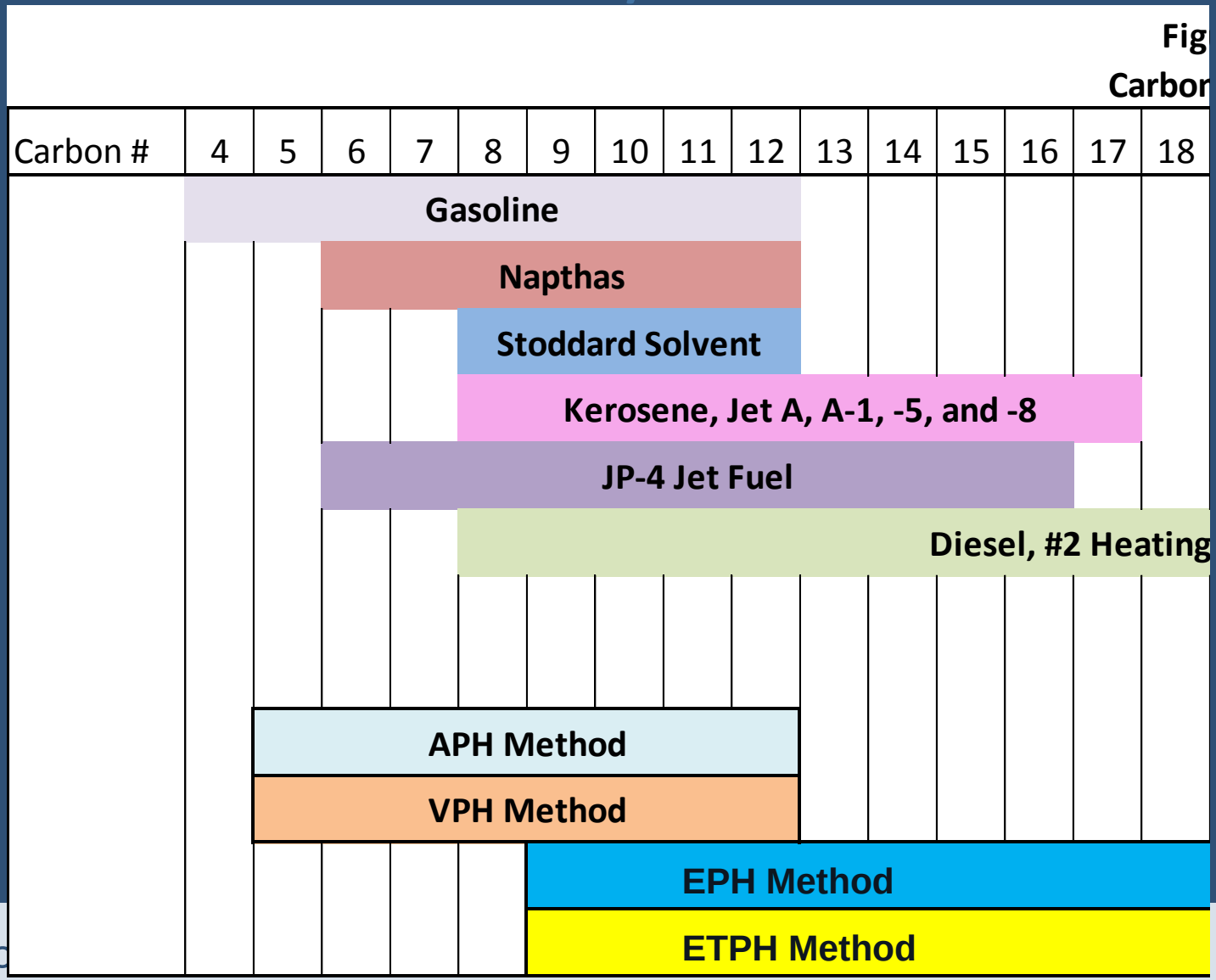
Notes:

*Carbon ranges can vary

Reference for carbon ranges - Volume 1, Analysis of Petroleum Hydrocarbons in Environmental Media, Total Petroleum Hydrocarbon Criteria Working Group Series, pages 61-68, March 1998

Analytical carbon ranges from the Reasonable Confidence Protocol for each method

Carbon Ranges of Commonly Used Petroleum Products and Analytical Methods



Co

Petroleum Products listed in Guidance

- Classified into 7 subgroups:
  - Gasoline
  - Light Petroleum Solvents
  - Jet Fuels and Kerosene
  - #2 Fuel Oil and Diesel
  - #3-#6 Fuel Oil, Lubricating Oils, and Hydraulic Oils
  - Waste Oil, Used Oils and Unknown Petroleum Substances
  - Transformer Oils, Mineral Oils, and Dielectric Fluids

Example: Suggested Analytical Methods for Gasoline

SOIL, SEDIMENT AND AQUEOUS MATRICES

Analytical Methods for Release Characterization
8260 **OR** VPH (carbon ranges and target compounds) **OR** VPH (carbon ranges only) and 8260

"OR" – Results from alternative analytical approaches may not be comparable or interchangeable

Example: Suggested Analytical Methods for Gasoline

AIR AND SOIL VAPOR

Analytical Methods for Release Characterization
APH (carbon ranges and target compounds) **OR** TO-15 (compliance) **OR** TO-17 (screening)

Example: Suggested Analytical Methods for #2 Fuel Oil and Diesel

SOIL, SEDIMENT AND AQUEOUS MATRICES

Analytical Methods for Release Characterization
ETPH, 8260, and 8270 PAH's OR EPH and VPH (carbon ranges and target compounds for each method)

Public Comment

- Draft for Public Comment anticipated in late June 2015

- Sign up for Remediation e-alerts to be notified

Questions / Comments

Please speak loudly
so everyone can hear
your question!

Draft Guidance Questions contact:
Paul Clark
860.424.3345 / Paul.clark@ct.gov

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Significant Environmental Hazard Notification Program Updates

Kenneth Feathers
Remediation Division
Supervising Sanitary Engineer

Connecticut Department of Energy and Environmental Protection

Public Act 13-308

- Effective date July 1, 2015
- Definitions changed for some hazard conditions
- NEW self-implementation for initial response
- Formalizes concept of “controlled”
- Changes in recordkeeping and reporting

Changes in Hazard Definition

- Effects on Drinking Water Supply Wells
  - 22a-6u (b) and (c)
  - No change to threshold concentrations
    - 22a 6u (b) triggered by exceedances of GWPC
    - 22a 6u (c) triggered by any detection of chemicals
  - NEW: Notify for product in well [22a-6u(b)]

Changes in Hazard Definition

- Direct Exposure Risk [22a-6u(d)]
  - Industrial/Commercial use
    - No change (30x IDEC) except for certain locations*
  - *I/C within 300 feet of residential use
    - CHANGE to 15x IDEC METALS AND PCB ONLY
    - BUT 30x IDEC if covered by pavement or fenced
  - Residential
    - CHANGE to 15x RDEC

Changes in Hazard Definition

RECAP – Direct Exposure Threats

Pollutant	Industrial/ Commercial	Industrial/Commercial But Residential use is within 300 feet	Residential
Metals and PCBs	30 x IDEC	15 x IDEC 30 x IDEC if paved/fenced	15 x RDEC
TPH	exempted	exempted	exempted
Organics	30 x IDEC	30 x IDEC	15 x RDEC
	Some substances excepted		

Changes in Hazard Definition

- Volatilization Risk [22a-6u(e)]
  - CHANGE to 10x criteria for use of property
  - CHANGE to within 15 feet of building
    - even if horizontal proximity
- ADVISORY – DEEP and DPH have issued advisory guidance regarding short term developmental risks posed by TCE at groundwater concentrations below these SEHN triggers

Changes in Hazard Definition

- Surface water threat [22a-6u(f)]
  - ADDED: Notification if product is in groundwater entering surface water
- Threat to supply wells [22a-6u(g)]
  - CHANGE to require notification if supply well is 200 feet side-gradient or up-gradient of plume
  - Still within 500 feet if down-gradient of plume

Self-Implemented Response

- Law provides for immediate implementation of typical response as formerly requested in acknowledgement letter
- Report of activity with proposal for further work to be done required at same time as notification of significant hazard
- Timing starts after owner becomes aware, typically 7 days after discovery by consultant

NEW SEH Self-Implementation

- Polluted Water Supply Well > GWPC [22a-6u(b)]
  - Conduct well survey for 500 foot radius
  - Seek access and test wells on adjacent parcels
    - Only if well itself within 500 feet of polluted well
    - Include parcels separated only by roads
    - [DEEP recommends also retest supply well to confirm]
  - Thirty (30) days to complete action/submit report
    - Report must include future action proposals
    - Due 3 weeks after written notification (day 30)

NEW SEH Self-Implementation

- Polluted Water Supply Well < GWPC [22a-6u(c)]
  - CHANGE Thirty (30) days for owner to notify DEEP
  - Retest supply well to confirm result
  - If retest is above GWPC follow 22a-6u(b)
    - Well survey within 500 feet
    - Seek access and test adjacent wells within 500 feet
  - Thirty (30) days to complete action/submit report
    - Report must include future action proposals
    - Submit with notification of hazard condition

NEW SEH Self-Implementation

- Threatened Water Supply Wells [22a-6u(g)]
  - CHANGE Thirty (30) days for owner to notify DEEP
  - Conduct well survey for 500 foot radius
  - Seek access and test wells on adjacent parcels
    - Only if well within 500 feet of plume
    - Include parcels separated only by roads
    - [DEEP recommends also testing any on-site well]
  - Thirty (30) days to complete action/submit report
    - Report must include future action proposals
    - Submit with notification of hazard condition

NEW SEH Self-Implementation

RECAP – Protection of Drinking Water Wells

	Supply Well (b)	Supply Well (c)	Monitoring Well (g)
Trigger	> GWPC	Detected	> GWPC 500 feet to DG well 200 ft. other directions
Notify	1 day verbal/ 7 written	30 day	30 day
Action (by day 30)	Well Survey 500 feet Test abutters	Retest Well If > GWPC further actions	Well Survey 500 feet Test abutters
Report	30 days With recommended actions	With notification at 30 days With recommended actions	

NEW SEH Self-Implementation

- Surface Soil Direct Exposure Risk [22a-6u(d)]
  - Exemption from 90 day Owner notification
    - Added: when in Lead Paint abatement prog. (Loc. H. Dept.)
  - NEW: Actions required within 90 days
    - Evaluate extent of hazard
    - Prevent exposure (interim control)
  - Ninety (90) days to submit SEHN and report
    - Report must include future action proposals
    - Submit with notification of hazard condition
    - Added voluntary report of removal/inaccessible

NEW SEH Self-Implementation

- Volatilization Pathway [22a-6u(e)]
  - Exemption from 30 day Owner notification
    - Changed to soil vapor less than 10x applicable criteria
    - Added Unoccupied building – Notify when reoccupied
    - Added Chemical in regulated industrial/commercial use
  - Thirty (30) days to submit SEHN and proposed plan
    - Mitigate exposure or abate condition
    - Submit with notification of hazard condition

NEW SEH Self-Implementation

- Surface Water Pathway [22a-6u(f)]
  - Change in timing of notice by owner
    - One day verbal notice if product entering surface water
    - Written notice within 30 days
    - Product notification exempt if otherwise reported
    - Exempt if reported within preceding year (retained)
  - Thirty (30) days to submit SEHN and proposed plan
    - Monitor, mitigate or abate condition
    - Submit with notification of hazard condition

Mitigation

- NEW Definition and Concept of Mitigation
  - Interim measures that control/prevent exposure
    - GAC Filter
    - Fence or cover for soil
  - Continued inspection, maintenance or monitoring
    - Longer term action defined in 30-day reports
    - Periodic re-validation of controlled status
  - Care required until permanent abatement or until remediation is complete

DEEP Response

- DEEP acknowledges within 10 days
  - May provide additional information
- Shall approve acceptable plan or report
  - Could include long-term care provisions
  - Can disapprove if not acceptable
- If no plan or report, or document disapproved
  - May prescribe action or issue action directive
- Shall certify acceptable permanent abatement

Public Engagement

- SEH Copies forwarded to:
  - Local elected officials
  - NEW Local health officials (were CCd in practice)
  - CHANGE –no other mandated copies
- List published on web site
  - NEW Abated sites not on published list
  - NEW Mitigated sites not on published list
    - Provided long-term care is conducted per plan

DEEP Outreach

- WEB Documents to be updated by July
  - Reference Tables and Form
  - FAQs
  - Guidance and instructions
- Web Report
  - Full Web report will be published June
  - Update in July to remove certified abated
  - Update to remove mitigated may be delayed

Questions / Comments

Please speak loudly
so everyone can hear
your question!

SEH Questions contact:
Kenneth Feathers, Supervising Sanitary Engineer
860.424.3770 / kenneth.feathers@ct.gov

www.ct.gov/deep/remediationroundtable

Roundtable Large Group Discussion

Wave 2 Proposed RSRs

Roundtable Large Group Discussion

- Questionnaire on Potential Wave 2 Concepts
- Public Notice Handout

- We Need Your Input
- Informal draft roll-out of RSR language is next!

How We Use Audience Feedback

- Development of Concepts
  - Proposal for a Transformed Cleanup Program, February 2013
    - Visioning Session
    - Evaluation Workgroup Reports
  - Wave 1 and Wave 2 RSRs
    - Workgroup Direction
    - Discussion Documents
    - Information Sessions
    - Comment Response

Topic: 95% UCL for SWPC

1. Should the RSRs allow the use of 95% UCL for SWPC when collecting 12 consecutive monthly samples from the monitoring well(s) at the point of discharge to surface water?

- Would this be a useful and protective provision?
- How could we make this a better provision?

[One would not be able to use the 95% UCL provision in combination with the Alternative SWPC calculation.]

Topic: Urban Soils

2. Characterization

Since the Urban Soil determination is based primarily on the PMC exception for coal-ash, additional information and/or characterization would also be necessary to confirm there had not been other site-related releases which would have the potential to contribute similar constituents in a leachable form.

- What type of evaluation is currently conducted to document presence of coal ash at a site?
- What should level of characterization be to appropriately identify and define the presence of Urban Soil at a site?
- In areas where there are releases on similar COCs, how should one discern the Urban Soil from a release area?

Topic: Urban Soils

3. Thresholds

The Discussion Document includes a table of maximum concentration thresholds as part of the characterization process for Urban Soils. There have been suggestions that thresholds be lowered to allows for statistical exceedances.

- Any suggestions for a workable approach?

Topic: Urban Soils

4. Dredge Fill

One condition for meeting definition of Urban Soil is either no PMC exceedances or meets one of the exemptions for PMC.

- Any suggestions for self-implementing process to evaluate dredge fill to address leachability issues and COCs?
- Where fill is mixed with dredged material, what approaches do you use to determine the dredged fill might have leachable metals from industrial impacts?
- Other than the proximity of a source of contaminated sediment or requiring SPLP testing, what could be used to determine whether dredge fill is impaired and would represent a leaching risk?

Topic: Urban Soils

5. Petroleum Hydrocarbons

The Discussion Document's threshold table includes a value for ETPH.

- Since the hydrocarbons that would be expected in coal and asphalt would have a different hydrocarbon fingerprint than most petroleum releases, what alternative analytical methods would be appropriate for distinguishing between historic fill and subsequent short-chain petroleum releases?

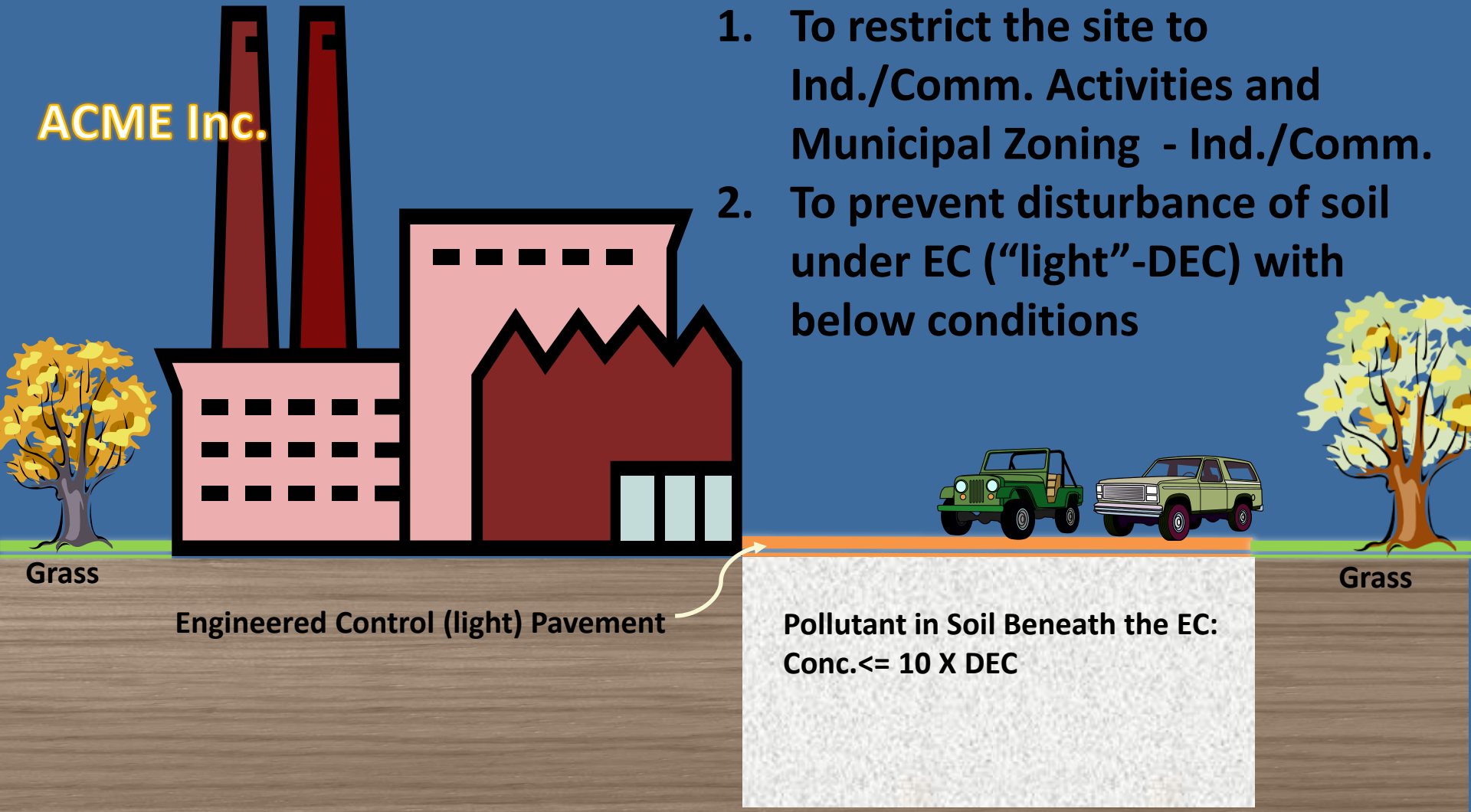
Topic: Alternative PMC

6. Self-Implementing Site-Specific Alternative PMC

The self-implementing site-specific alternative PMC option would require collection of additional parameters not often collected as part of site characterization and a more detailed level of understanding of soil stratigraphy than is standard practice. Depending on the complexity of the soil stratigraphy, further soil sampling may be necessary to provide full resolution for all soil strata.

- Since these soil samples are not typically collected unless used for this express purpose, how would collecting this information affect the use of this proposed option? What could be changed to make it more functional without reducing the science that the proposed self-implementing site-specific PMC option is based on?

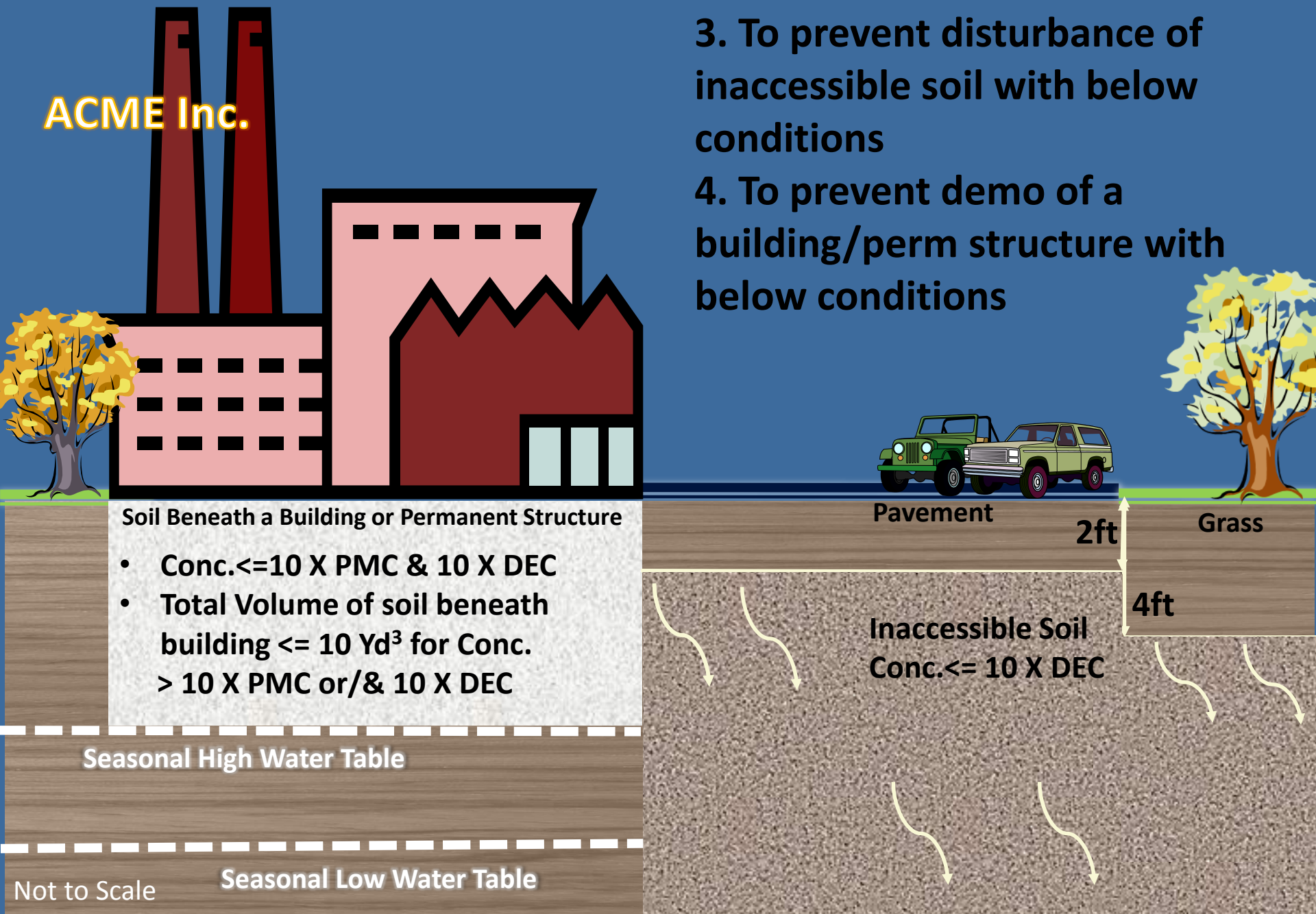
Notice of Activity and Use Limitation - Applicability



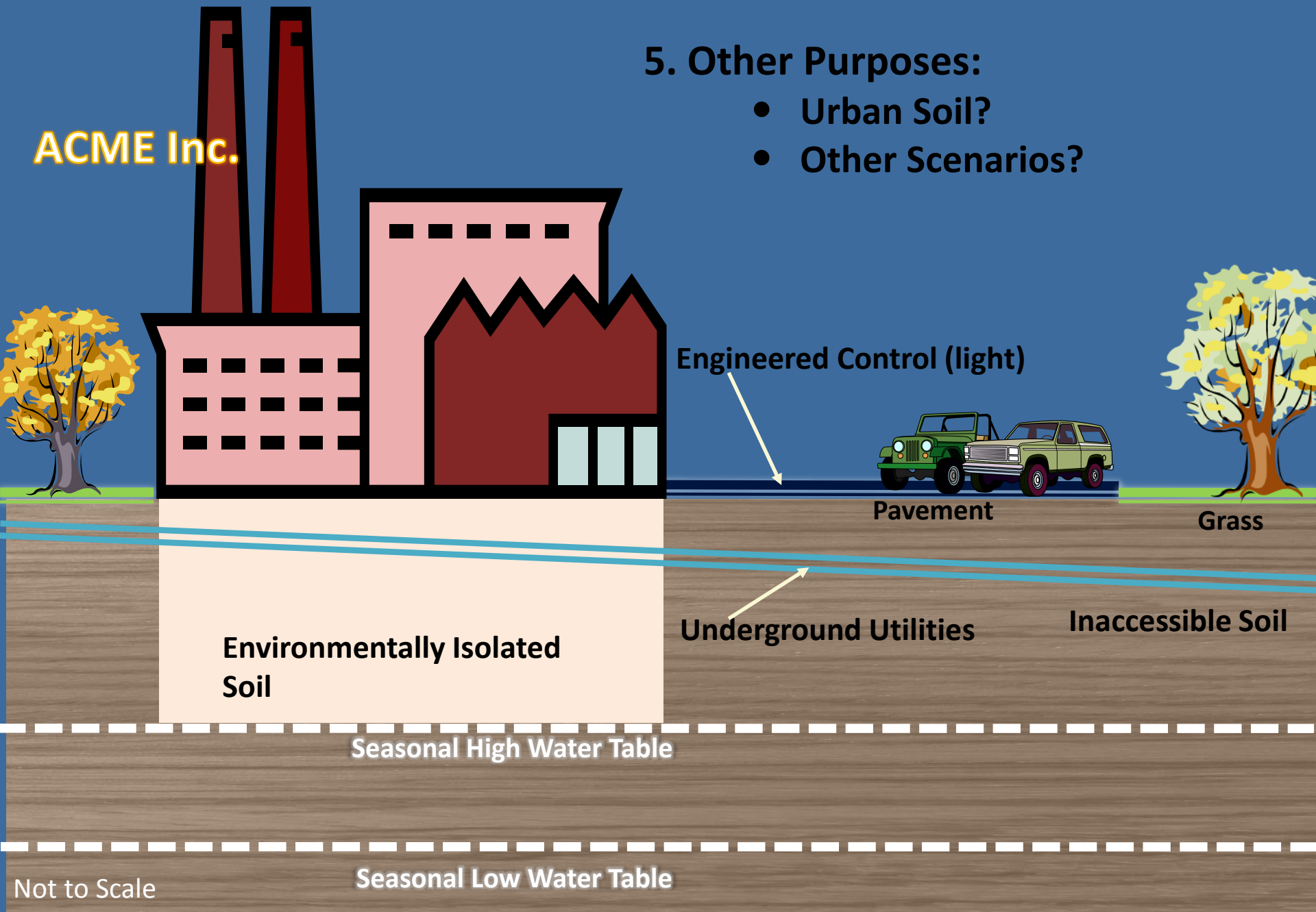
1. To restrict the site to Ind./Comm. Activities and Municipal Zoning - Ind./Comm.
2. To prevent disturbance of soil under EC ("light"-DEC) with below conditions

Not to Scale

Notice of Activity and Use Limitation - Applicability



Notice of Activity and Use Limitation - Applicability



Topic: Notice AUL

7. The Statute allows the regulations to add additional purposes for a Notice AUL. Under what "other" conditions or settings would it be beneficial to allow a Notice AUL rather than requiring a full ELUR?

Topic: EUR

8. Are there any other EUR scenarios that you can think of that are not currently being proposed?

Topic: EUR

9. Reasonable Time Limits

Certain short-term temporary activities (i.e., for underground utility/construction) may be allowed within the area subject to the ELUR. These could be included in the list of the "permitted site activity and use" in the ELUR with LEP oversight and notification prior to the work and after the work has been completed. Since the authorization could not be open-ended, what would be a good way to impose reasonable time limits for the activity?

- The allowable duration of those activities (e.g., 15 days, 30 days, 90 days?);
- The frequency (once per year?); and/or
- The volume of the disturbance?

Topic: Alt SWPC Attenuation Factor

10. Alternative SWPC Options

- Self-Implementing: a simple distance calculation to allow the SWPC or Aquatic WQS to be multiplied based on the terminal end of the plume's distance to the surface water discharge point. For discussion purposes only:

  Greater than 1000 ft = 5 x multiplier

  Between 1000 ft to 500 ft = 2 x multiplier of SWPC

  Less than 500 ft = no multiplier

  - Is there an alternative option for a simple distance calculation?

- Commissioner approval option: providing site-specific information along with a detailed calculation.
  - What should a Commissioner Approval option require?
  - Should it include modeling? What would be some useful models?
  - Would it be chemical-specific and based on retardation factors?
  - What site-specific information would be needed and how much should it be factored into the determination?

Topic: Public Notice

11. Site vs. Release Area

In addressing the public's right to know about remedial measures, how can we resolve the inconsistency between requiring public notice of remediation at a "site" when remediation usually occurs by "release area" under the RSRs?

Topic: Public Notice

12. Pollution Description

The public notice for an ELUR requires “a brief description of the nature of the pollution on the subject parcel.”

- Should the RSRs have a similar requirement for all notices of remediation?
- What additional language should be added to the various notices to provide useful information to the public?

Topic: Public Notice

13. Activity-Specific Public Notice

Currently, public notice is applied by site and supplemented for ELURs, engineered controls, injection permits and RCRA closure.

- For what additional activities should the general public notice be supplemented by an additional activity-specific notice?

Topic: Public Notice

14. Comment Period

In most cases, the public notice requirements include a 45 day comment period.

- In what setting or for what milestones might this be reduced to a notice with no comment period?
- How is this handled in other states?

Topic: Public Notice

15. AUL Public Notice Comment Period

Is the 30 day public notice comment period presently used for ELURs appropriate for the more streamlined Activity and Use Limitations or should public notice requirements for Notice AULs be handled differently?

Topic: Long-Term Obligations

16. Some new provisions proposed in Wave 2 require long-term obligations, such as vapor mitigation systems and MNA.

- What are some recommended options for ensuring long-term operating, maintenance, and reporting?

Topic: Alternative GWPC

17. Public comments on the Discussion Document questioned why public water is required to be present between the Alternative GWPC plume and surface water discharge point. This requirement was proposed because, if no one controls the water between the terminal extent of the plume and surface water body, a drinking water well could be installed in an area where public water is not available and use groundwater that is above the GWPC.

- Any questions/comments regarding why this requirement is still necessary?

Topic: Alternative GWPC

18. In the cases where the owner of a site also owns all the land between the terminal extent of the plume and the discharge location, an ELUR to restrict groundwater use could be placed allowing the use of the Alternative GWPC.

- Would this be an acceptable exception to this requirement?

Remediation Roundtable

E-mail: DEEP.remediationroundtable@ct.gov

Web: www.ct.gov/deep/remediationroundtable

Next meeting: September 8, 2015
(Day after Labor Day)

Schedule and agenda on website
www.ct.gov/deep/remediationroundtable

Submit comments to the Roundtable Committee at
DEEP.remediationroundtable@ct.gov