REMEDIATION ROUNDTABLE

September 13, 2011

Remediation Division
Bureau of Water Protection and Land Reuse
Connecticut Department of Energy and Environmental Protection
WELCOME!

CAMILLE FONTANELLA
An open forum for the exchange of ideas and information on CT’s Remediation Programs

Next meeting: November 8, 2011

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

Submit comments to Camille Fontanella at DEP.remediationroundtable@ct.gov
Your involvement and constructive, creative ideas will make this a success

Agenda items may include program proposals and updates, training, field/implementation issues, and regulatory application

Specific sites/cases will not be addressed

Be respectful of time constraints

Agendas will be shaped by your suggestions
TODAY’S AGENDA

- Commissioner Daniel Esty
- Public Participation
  - Workgroup Report Out
    - List of Contaminated Sites Workgroup
    - Urban Fill Workgroup
- Updates:
  - Comprehensive Evaluation / Transformation
  - Proposed Changes to the RSRs
  - Brownfield Initiative
  - Survey Says!
COMPREHENSIVE EVALUATION AND TRANSFORMATION

SUMMARY AND UPDATE

GRAHAM STEVENS
WHERE THIS PROCESS BEGAN

- Commissioner Esty has made transformation of CT’s Brownfield programs a top priority

- DEEP released a white paper on Remediation Programs in January 2011
  
  Comprehensive Evaluation of Connecticut Site Cleanup Programs

- This document provides baseline information on remediation programs and laws that influence remediation
DEEP will issue Report to Governor and Legislature (Commerce & Environment Committees) by December 15, 2011.
WHY ARE WE LAUNCHING THIS PROCESS?

- DEEP has an opportunity to make significant improvements to our cleanup programs.
- DEEP has support through all levels of government to make wise improvements that will make cleanups more effective and more efficient.
- Current programs have significantly reduced risk, and we have all learned from the programs in place since 1967.
WE STARTED WITH A STATUTORY CHARGE
WE ARE WORKING ON A VISION

Vision
VISION AND CHARGE
FORM BEDROCK FOR TRANSFORMATION

Vision

Charge
VISION AND CHARGE
FORM BEDROCK FOR TRANSFORMATION

Vision

Charge
NOW WE ARE ADDING INFORMATION AND DATA

Info & Data
A SOLID BASE FOR TRANSFORMATION

Vision

Info & Data

Charge
Almost 100 of our partners attended a full afternoon visioning session.

Participants included representatives from:
- government
- municipalities
- regulated community (including RPs, redevelopers, and owners)
- environmental constituents
- LEPs
- environmental attorneys
Submit your own vision by viewing the Session’s PowerPoint and completing the guided questions on our Stakeholder Input and Public Participation Web Page.

Follow-up questions have also been published.

Draft Visioning Session Report available on the Transformation’s Stakeholder page.

Please provide your vision, answer to follow-up questions and comments to the draft report to: DEP.Cleanup.Transform@ct.gov.
DEEP took the 29 identified workgroup topic ideas, the refined workgroup topics, and the stakeholder voting results and distilled these concepts into 6 evaluation workgroups.

Each workgroup has a specific scope and deliverable.

These 6 workgroups represent the most critical topics requiring evaluation at this stage of the process.

Reports are due to DEEP on September 28th.
EVALUATION WORKGROUPS

1. Evaluation of CT's Cleanup Programs - Current State
2. Evaluation Finish Lines and How Risk and Other Factors Influence Closure
3. Entries Points and Triggers into the Current Connecticut Cleanup Programs
4. Evaluation of LEP Program Performance and Utilization
6. Evaluate Best Practices of Various State Cleanup Programs
PUBLIC PARTICIPATION

- DEEP needs your continued cooperation and participation to make this TRANSFORMATION a success

- Please sign-up for e-Alerts on the Remediation web page

- Please stay involved

www.ct.gov/dep/remediation-transform
COMPREHENSIVE EVALUATION AND TRANSFORMATION
QUESTIONS / COMMENTS

THANK YOU FOR PARTICIPATING!

www.ct.gov/dep/remediation
WORKGROUP REPORT OUT

LIST OF CONTAMINATED SITES (LCS) WORKGROUP
PARTICIPANTS

- Christine Lacas, Kevin Neary & Dave Madsen [DEEP]
- Anne Peters [Carmody & Torrance]
- Eric Boswell and Brian Washburn [HRP]
- Gabriel Knight [Stantec]
- Jim Hutton and Adam Henry [GZA]
- Rick Standish [Haley & Aldrich]
- Sarah Trombetta [TRC]
- Will Warren [Regional Economic Xcelleration]
- Zackary Smith [AECOM]
GOAL

- Provide recommendations to develop a more user-friendly, time-efficient, comprehensive list of contaminated sites that is associated with Geographic Information Systems for the public
TIMEFRAME

- June to August (3 Meetings)
  - June 22rd – Objective of the Workgroup
    - Homework assignment – List top 10 suggested fields
  - July 14th – Suggested additions to LCS
  - August 17th – Discussed LCS interface and Roundtable Presentation
 List of Contaminated or Potentially Contaminated Sites

“Hazardous Waste Facilities” as defined by Section 22a-134f of the Connecticut General Statutes

<table>
<thead>
<tr>
<th>TOWN OF: ANDOVER</th>
<th></th>
<th></th>
<th></th>
<th>Post Remedial Monitoring Started</th>
<th>Remediation Completed</th>
<th>ELUR</th>
<th>ELUR Type</th>
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<tr>
<td>Name</td>
<td>Address</td>
<td>Site Definition</td>
<td>Investigation Started</td>
<td>Remediation Started</td>
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<td>Andover Elementary School</td>
<td>35 School Rd.</td>
<td>Leaking Underground Storage Tanks – Pending</td>
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<td>Andover Xtra Mart</td>
<td>497 Route 6</td>
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<td>Drake’s Ed_attempt</td>
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<td>Inventory of Hazardous Waste Disposal Sites</td>
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<td>Former Mercury Oil Facility</td>
<td>Jonathan Trumbull Highway &amp; Long Hill Rd.</td>
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<tr>
<td>Heritage Auto Body Of Andover</td>
<td>5 Bunker Hill Road</td>
<td>Property Transfer – Form III Investigation started 10/12/2007</td>
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<td>Post Narrow Fabrics Company</td>
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</table>
CURRENT REQUIREMENTS

CGS 22a-134f & CGS 22a-133c
- Satisfy requirement to notify Town Clerks
  - Sites that are Commercial hazardous waste TSD facilities
  - Sites listed on the Hazardous Waste Disposal Site Inventory

Section 128(a) of CERCLA Funding
- Public Record must be maintained for the state to be eligible for section 128(a) federal funding
- Specific information must be provided for the LCS to satisfy Public Record requirements

List updated quarterly
1st MEETING

- Evaluate current requirement to have LCS
- Discuss how the group members use LCS
  - Screening tool prior to Phase I ESA generation
  - Identify potential off-site concerns
- Current use of LCS is minimal due to usability
- Discuss potential improvements to LCS
  - Need better definition of what it means to be on LCS
  - Searchable and sortable functionality
  - Adding site information and programmatic status
  - Integrate LCS with GIS for a more user-friendly search
Group members brought suggestions for 10 additional fields that they thought should be added to LCS

- 61 unique fields were suggested
- Fields were evaluated based on
  - Importance
  - Availability
  - Redundancy (can this information be found elsewhere)
- Group narrowed down the list to 22 core fields
<table>
<thead>
<tr>
<th>Category</th>
<th>Suggested Fields</th>
<th>Status</th>
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<tbody>
<tr>
<td>Selected Fields</td>
<td>Site Name</td>
<td>Already Included</td>
</tr>
<tr>
<td>Selected Fields</td>
<td>Address</td>
<td>Already Included</td>
</tr>
<tr>
<td>Selected Fields</td>
<td>Town</td>
<td>Already Included</td>
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<tr>
<td>Selected Fields</td>
<td>Program</td>
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<tr>
<td>Selected Fields</td>
<td>Status</td>
<td>Already Included</td>
</tr>
<tr>
<td>Selected Fields</td>
<td>Site/Case Number</td>
<td>Added Field</td>
</tr>
<tr>
<td>Selected Fields</td>
<td>DEEP Project Manager/Region</td>
<td>Added Field</td>
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<tr>
<td>Selected Fields</td>
<td>DEEP/LEP Lead and Affiliation</td>
<td>Added Field</td>
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<tr>
<td>Selected Fields</td>
<td>Responsible Party</td>
<td>Added Field</td>
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<tr>
<td>Selected Fields</td>
<td>Date Received</td>
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<tr>
<td>Selected Fields</td>
<td>Investigation Started</td>
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<tr>
<td>Selected Fields</td>
<td>Investigation Complete Due Date and Received (Yes/No)</td>
<td>Added Field</td>
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<tr>
<td>Selected Fields</td>
<td>RAP Due Date and Received (Yes/No)</td>
<td>Added Field</td>
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<td>Selected Fields</td>
<td>Remediation Started</td>
<td>Already Included</td>
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<tr>
<td>Selected Fields</td>
<td>GW Monitoring (Yes/No) / Long Term Monitoring Underway (Yes/No)</td>
<td>Already Included</td>
</tr>
<tr>
<td>Selected Fields</td>
<td>Remediation Completed</td>
<td>Already Included</td>
</tr>
<tr>
<td>Future Additions</td>
<td>Date and Type of Last Submittal (Links to PDF of Report)</td>
<td>Future Additions</td>
</tr>
<tr>
<td>Future Additions</td>
<td>DEEP Approval (Yes/No)</td>
<td>Future Additions</td>
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<tr>
<td>Future Additions</td>
<td>Primary Pollutant</td>
<td>Future Additions</td>
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<tr>
<td>Future Additions</td>
<td>Site applied to UST Reimbursement Fund</td>
<td>Future Additions</td>
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<tr>
<td>Future Additions</td>
<td>Site approved under UST Reimbursement Fund</td>
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<tr>
<td>Future Additions</td>
<td>AKA Site Name</td>
<td>Future Additions</td>
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</table>
Determined that LCS needs to be searchable in order for it to be successful
  - Searchable form will initially be in a downloadable Access database (similar to manifest database)
  - Option for a multi-criteria search by case #, town, address, site name, program

Frequent database updates on DEEP server

Eliminate blank space - show only fields associated with particular program

Ultimately want a web interface for online access
FUTURE IDEAS

- Investigate creating a searchable web-based interface
- Investigate integrating Remediation GIS coverage with online GIS viewer (ECO)
- Create a process to handle public feedback on site information (quality control)
- Design query & report for downloadable database
- Develop a method to provide access to available PDF documents related to LCS
- Normalize data from Spills, LUST and Remediation to have one unique identifier
New LCS Release Stages

- **Stage 1:** GIS coverage of Remediation sites
  - 1 - 3 Months
  - Initially located on DEEP webpage as GIS coverage
  - Ultimately located on Online GIS viewer (ECO)

- **Stage 2:** Downloadable Access database
  - 6 – 12 months from OIM authorization
  - To be located on DEEP FTP site as downloadable zip file
  - Modify towns’ cover letter to direct users to online resources

- **Stage 3:** Searchable web-based LCS
  - To be located on DEEP webpage
  - Provide towns with a link to a simple, printable version with web links
QUESTIONS / COMMENTS

www.ct.gov/dep/remediation
WORKGROUP REPORT OUT

URBAN FILL WORKGROUP
MECHANICS

- **Timeframe**
  - June to August with meetings every two weeks

- **Participants**
  - Sandy Brunelli and Maurice Hamel [DEEP]
  - John Albrecht and Larry Hogan [AECOM]
  - Tamara Burke [CDM]
  - Dave Clymer [UTC]
  - George Gurney [Stantec]
  - Darrick Jones and Michael Susca [LBG]
  - David Losee [Halloran & Sage]
  - Victoria Man [Zuvic Carr]
  - Bert Sacco [TPA]
Why talk about urban fill?

- Common on urban sites of all land uses
- Not related to specific releases
- Current regulatory framework offers insufficient options
- Other states may have a competitive advantage for brownfield development
WORKGROUP GOALS

- Identify what is and isn’t working within the current regulatory framework
- Propose solutions within the current regulations
- Consider changes to regulations and statutes
- Provide specific recommendations to DEEP
- Create framework for requests and timely approvals

Achieve a permanent remedial solution for urban fill sites
WHAT WAS DISCUSSED...

- A working definition of urban fill
- Remedial options currently in the RSRs and their limitations
- How other states address urban fill
- Streamlining the approach to site characterization
- Streamlining the approach to risk assessment
- Self-implementing remedial options
“Urban Fill”: material on a parcel as the result of [historical] filling activities that contains a mixture of one or more of the following: soil, coal ash, [slag, clinkers, dredge material], coal fragments, wood ash, asphalt paving fragments, brick, concrete, glass, and ceramics [and clean fill as defined under 22a-209-1 (2)], provided that:

- Contaminants present above RSR criteria in the fill are not the result of any specific release;
- volatile organic substances are not present in the fill above RSR criteria; and
- the placement of the fill was not prohibited at the time of the placement.
Current RSR Options

- Removal
- In-situ treatment
- Render inaccessible or environmentally isolated
- Widespread polluted fill variance
- Site-Specific Risk Assessment
CURRENT LIMITATIONS

- Excessive time and money spent characterizing fill that may not pose a risk
- Limited number of self-implementing options
- Inaccessible soil RSR exemption is for DEC
- Current RSR fill options address PMC exceedances
- Unpredictable approval process and endpoint
  - Excessive DEEP review time with no central DEEP coordinator
- Localized removals do not address widespread problems
- Impacts from widespread removal of urban fill
OTHER STATES

- Massachusetts
  - Concentrations within published ranges from **urban fill** require no remedial action (i.e., “background” for urban fill)
    - Such concentrations are not considered reportable releases
  - Standardized risk assessments may be used if concentrations exceed published ranges and are self-implementing
    - Average site-wide data (excluding hot-spots) to develop an exposure point concentration to demonstrate compliance

- Pennsylvania
  - Act 2, the Land Recycling Program, encourages the voluntary cleanup and reuse of contaminated commercial and industrial sites
  - Regulated Fill reuse General Permit allows reuse of urban fill soil and other materials as construction material
Site characterization for urban fill should be less stringent than typically required for specific release areas.

**SOIL:**
- Sufficient information should be gathered to adequately:
  - Define the horizontal and vertical extent appropriate to the remedy
  - Confirm the absence or define the extent of other releases
  - Confirm that the material meets the characteristics and conditions of the definition of urban fill
  - Delineation sufficient to characterize range of concentrations for urban fill COCs
Site characterization for urban fill should be less stringent than typically required for specific release areas.

**GROUNDWATER:**

- Questions to be further discussed
  - What level of vertical and horizontal delineation of groundwater is necessary?
  - What level of well receptor survey is necessary?
  - What level of assessment is needed for SWPC compliance?
STREAMLINED RISK ASSESSMENT IDEAS

- Establish “typical” urban fill COC concentration ranges
- Standardize process for either quick approval or allow self-implementing, pre-approved formulas/exposure scenarios
  - Create risk assessment short form or checklist for urban fill concentration levels
  - Provisions for self-implementing risk assessment ~ MA
  - Consider a tiered approach based on land use, monitoring frequency, etc.
- Redefine “hot spots” to account for variability in distribution of urban fill
  - current 2x RSR limit for 95UCL leads to exceedances
SELF-IMPLEMENTING REMEDIATION IDEAS

- Develop a list of pre-approved, self-implementing alternatives under pre-defined conditions
- Tiered risk approach, similar to MA, with remedy appropriate to concentrations and land use and receptors
- General Permit approach instead of individual EC approvals
- Waive or modify surety options and long-term monitoring requirements
- Options may require regulation changes
WHAT’S NEXT?

- Workgroup to continue and provide more detailed recommendations to DEEP

- Solicit comments and evaluate feedback from Roundtable members
  - Public comment through October 21, 2011
  - Send comments to: DEP.Remediationroundtable@ct.gov
WHAT’S NEXT?

- DEEP or workgroup to develop guidance which creates:
  - Predictability in timeframe and process
  - Pathway to approval and permanent solution
  - Matrix describing self-implementing/pre-approved alternative remedies
  - Table of COC concentration ranges
  - Policy coordination with Solid Waste staff
Questions / Comments

www.ct.gov/dep/remediation
THANK YOU!

DEP.remediationroundtable@ct.gov
www.ct.gov/dep/remediationroundtable

NEXT ROUNDTABLE: NOVEMBER 8, 2011