

REMEDIATION ROUNDTABLE



**BUREAU OF WATER PROTECTION AND LAND REUSE
CONNECTICUT DEPARTMENT OF ENVIRONMENTAL
PROTECTION**



December 14, 2010



ROUNDTABLE PROCEDURES AND MECHANICS



REMEDIATION ROUNDTABLE



What is it?

- An open forum for the exchange of ideas and information on CT's Remediation Programs

Why was it created?

- DEP recognizes the value of opinions and information provided by experts and affected constituencies outside the DEP
- Provides an additional way to update the public

REMEDIATION ROUNDTABLE



Who may participate?

- Anyone interested
- Will set up email list serve

When is the Roundtable held?

- Bi-monthly (every two months)
- Up to two hours in duration
- Tentatively scheduled for 2nd Tuesday in February, April, June, September, and November
- Schedule on website www.ct.gov/dep/remediation

REMEDIATION ROUNDTABLE



AGENDA

- Agenda on website www.ct.gov/dep/remediation
- Draft agenda posted prior to meeting
- May submit topic suggestions to Peter Hill

REMEDIATION ROUNDTABLE



AGENDA

- Ground Rules:
 - Your involvement and constructive, creative ideas will make this a success
 - Agendas will be shaped by your suggestions
 - Specific sites/cases will not be addressed
 - Be respectful of time constraints
 - Agenda items may include program proposals and updates, training, field/implementation issues, and regulatory application

TODAY'S AGENDA



- Introduction
- Roundtable forum
- Proposed items:
 - Potable Water Lean/Kaizen event summary
 - ELURs Lean event update
 - Updates on five existing Guidance Documents
 - Public Participation
 - Clarifications on 2003 Proposed Revisions to RSR Volatilization Criteria (if time allows)

POTABLE WATER LEAN EVENT



POTABLE WATER LEAN KAIZEN EVENT



WHAT IS LEAN?

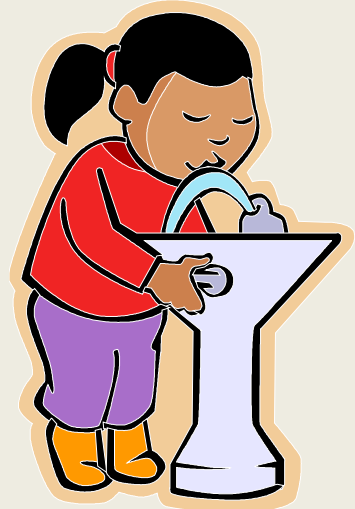
- An approach that streamlines processes and improves quality of work product
- Kaizen - a week-long part of the Lean process where staff teams identify needed improvements
- Promotes use of performance indicators and visuals to track achievement of goals
- Improved efficiency gives DEP more time to protect the environment
- DEP is applying Lean principles and practices across the Agency to improve the way we do business

POTABLE WATER LEAN KAIZEN EVENT



OVERVIEW

Potable Water Program Background
Lean Kaizen Event
Current Process
Future Process
Implementation Plan
Summary



POTABLE WATER LEAN KAIZEN EVENT



BACKGROUND

- **Program Mission:**
 - To ensure that safe drinking water is available to residents whose well water is found to be polluted as a result of improper disposal, handling, or storage of chemicals by others
- **Authorizing statute: CGS section 22a-471**
 - Commissioner has authority to order the responsible polluter (or the municipality) to provide potable water to those parties with polluted well water and to submit a plan to provide long-term supply using a treatment system or alternate water supply

POTABLE WATER LEAN KAIZEN EVENT



PROGRAM FACTS

- Not applicable to naturally occurring substances
- Unknown responsible party
 - DEP can provide bottled water and/or treatment system
 - DEP may investigate the source of pollution
 - DEP can provide recommendations for the long-term provision of potable water

POTABLE WATER LEAN KAIZEN EVENT



- 5-day Brainstorming Session
- Evaluate Current and Future Processes
- Develop Implementation Plan

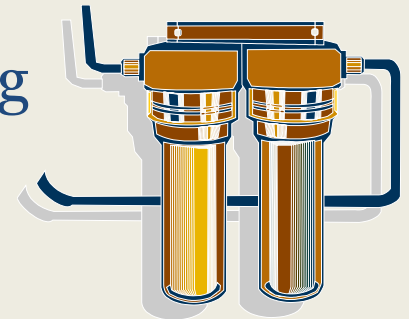
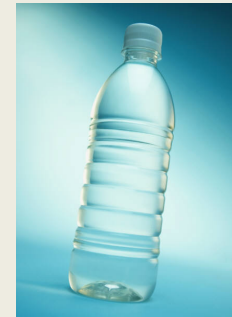


POTABLE WATER LEAN KAIZEN EVENT



CURRENT PROCESS

- Non-value added steps found in:
 - When to provide bottled water
 - Number of confirmatory samples
 - Sampling frequency
 - Selection of lab analysis
 - Multiple databases
 - Follow up on wells requiring routine sampling

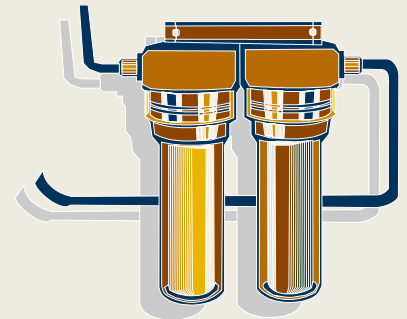


POTABLE WATER LEAN KAIZEN EVENT

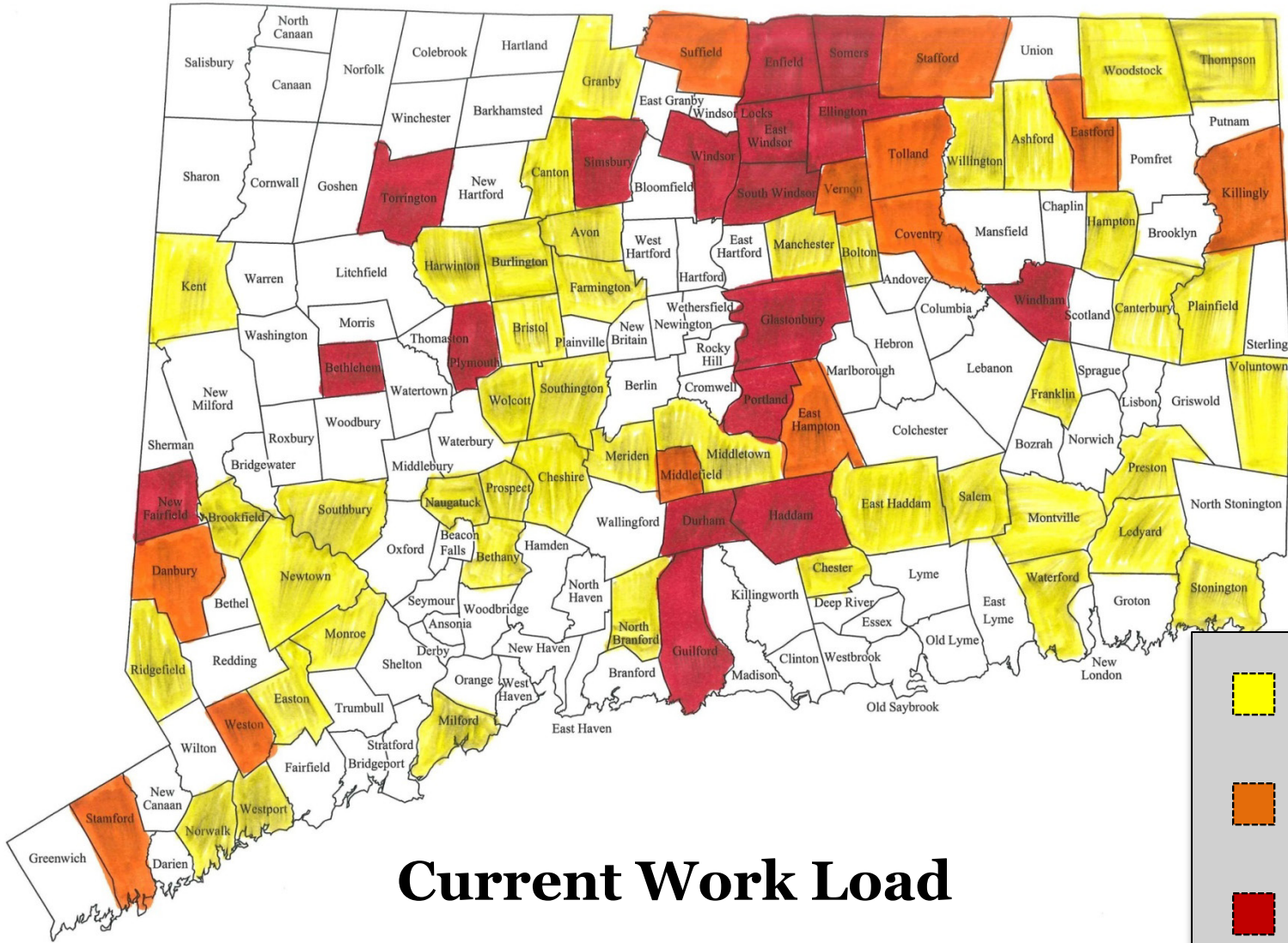


OPPORTUNITIES TO IMPROVE

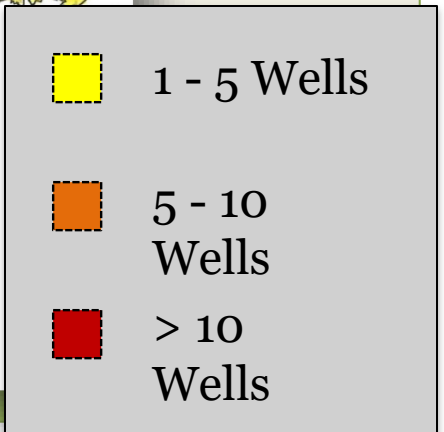
- Faster turn around time for lab analysis
- Better coordination of scheduled sampling
- Faster transmittal of analytical results to homeowners
- Elimination of extraneous review loops



POTABLE WATER LEAN KAIZEN EVENT



Current Work Load



POTABLE WATER LEAN KAIZEN EVENT



DPH LAB VISIT

- Identified opportunities for improved efficiencies between the agencies
- Certain analyses delay the reporting of results – DEP to evaluate if/when those analyses are necessary



POTABLE WATER LEAN KAIZEN EVENT



FUTURE PROCESS

STREAMLINED

Type of Process	Current # of Processes	Future # of Processes
Value added	13	11
No Value Added	71	0
No Value Added but Necessary	53	36
Waiting Time	43 - 88 Days	6 - 32 Days
Action Time	13 Hours	3 - 10.5 Hours
Total	137	54
% REDUCTION IN THE NUMBER OF TOTAL STEPS = 60%		

POTABLE WATER LEAN KAIZEN EVENT



PROJECT IMPLEMENTATION PLAN 2 MONTH GOALS

- **Process Improvements:**
 - Eliminate unnecessary approval loops
 - Tailor DPH lab forms for DEP customer
 - Develop initial SOPs
- **Outreach:**
 - Homeowner information sheet
 - Revise Potable Water Program Fact Sheet
- **Phase I Database development:**
 - Staff data entry form
 - Complete database reconciliation project

POTABLE WATER LEAN KAIZEN EVENT



PROJECT IMPLEMENTATION PLAN 6 MONTH GOALS

- Process Improvements:
 - Develop/refine SOPs
 - Automate delivery of lab results
 - Develop PW Program information toolbox for staff
 - Develop electronic DPH lab forms and labels for DEP
- Phase II Database Development:
 - Enhance existing database

POTABLE WATER LEAN KAIZEN EVENT



PROJECT IMPLEMENTATION PLAN

1 YEAR GOALS

- Complete follow up on wells requiring routine sampling
- Phase III Database Development:
 - Redesign data entry module
 - Improve efficiency of scheduling system
 - Auto-generate merge letter for lab forms and result letters to residents

POTABLE WATER LEAN KAIZEN EVENT



SUMMARY

- Opportunities
 - Develop SOPs for scheduling, sampling, providing results
 - Establish universal tracking system
- “WOW” Moments
 - Some lab analyses may delay receipt of lab reports
 - Confirmatory sampling often may be of no or low-value
 - Expedited management approval possible

POTABLE WATER QUESTIONS / COMMENTS



THANK YOU FOR PARTICIPATING!

www.ct.gov/dep/remediation



ENVIRONMENTAL LAND USE RESTRICTION LEAN EVENT UPDATE



ENVIRONMENTAL LAND USE RESTRICTION

LEAN EVENT UPDATE



What is an ELUR?

- An ELUR is a grant of easement to the Commissioner that is used to limit the uses and activity at a property to minimize the risk of human exposure to pollutants.
- ELURs are recorded on the land records
- ELURs are commonly used in remediation to add flexibility in cleanup approaches

ENVIRONMENTAL LAND USE RESTRICTION LEAN EVENT UPDATE



ELUR Lean Objective

- Improve the quality of ELUR applications so that 95% of the applications received are approvable
- Reduce the duration of DEP review process and approval of ELUR applications

ENVIRONMENTAL LAND USE RESTRICTION LEAN EVENT UPDATE



ELUR Lean Event

- February 2009 – 1 week event
- Reviewed the existing ELUR process
- Developed a streamlined process and reduced unnecessary steps
- Established DEP review milestones
- Developed implementation plan for improvements

ENVIRONMENTAL LAND USE RESTRICTION LEAN EVENT UPDATE



What We've Done

- November 2009 - **new** ELUR web page posted
 - existing ELUR Application materials
 - ELUR Preparation Guidance
 - ELUR factsheet, checklists, templates, forms, and instructions
- February 2010 - posted a more comprehensive and user-friendly draft ELUR Application Form for public comment

ENVIRONMENTAL LAND USE RESTRICTION LEAN EVENT UPDATE



What We've Done

- Implemented SOPs for administrative review resulting in increased processing efficiency
- New Notice of Administrative Completeness letter
- New Notice of Administrative Deficiency letter
- Training and outreach to the CT Association of Land Surveyors and the Society of Women Environmental Professionals

ENVIRONMENTAL LAND USE RESTRICTION LEAN EVENT UPDATE



What We Are Doing Now

- Writing responses to comments on the new ELUR application
- Developing SOPs for technical staff and management review of ELURs
- Closing out inactive ELUR applications
- Improved tracking of the ELUR review process through an enhanced database

ENVIRONMENTAL LAND USE RESTRICTION LEAN EVENT UPDATE



Where We Are Going

- Finalize the new ELUR application
- Conduct training for the public and DEP staff
- Conduct outreach with utilities to discuss ELURs and subordination issues
- Improve Certificate of Title guidance
- Update the ELUR Web Page

ELUR QUESTIONS / COMMENTS



THANK YOU FOR PARTICIPATING!

www.ct.gov/dep/remediation



GUIDANCE DOCUMENTS



GUIDANCE DOCUMENTS



- Updates on existing guidance
 - reviewed at the direction of Commissioner Marrella (Spring of 2010)
 - review is consistent with DEP's commitment to LEAN culture - "plan-do-check-adjust"
- Opportunities to clarify some language
- Updates completed for
 - Site Characterization Guidance Document
 - Engineered Control Guidance Document
 - Environmental Condition Assessment Form and Instructions
 - Reasonable Confidence Protocols Guidance Document
 - Data Quality Assessment/Data Usability Evaluation Guidance Document
- Revised Guidance posted on DEP's website
www.ct.gov/dep/remediation

SITE CHARACTERIZATION GUIDANCE



SITE CHARACTERIZATION GUIDANCE



- Revisions:
 - Changes throughout document to reflect “guidance” rather than “requirements”
 - References to “levels” of ERA removed and replaced with a discussion of “Ecological Considerations” which recommends:
 - ✦ Evaluation of potential ecological exposure pathways identified in the CSM
 - ✦ Investigation may be necessary to determine if ecological receptor impacted by a release
 - ✦ If CSM indicates ERA is necessary, recommendation to EP to consult with DEP

SITE CHARACTERIZATION QUESTIONS / COMMENTS



THANK YOU FOR PARTICIPATING!

www.ct.gov/dep/remediation



ECAF and INSTRUCTIONS



ECAF and INSTRUCTIONS



Purpose :

1. Provide basic site information to the public
2. Provide information to DEP to make a determination of oversight



ECAF and INSTRUCTIONS



Revisions:

- Ecological Considerations (Part VI.3.)
 - Yes/no answers to “Further Assessment Needed” and “ERA Completed” options
- Receptor Surveys (Part VII.6.)
 - Removed request for submittal within 75 days - may be requested on a case-by-case basis, if not already completed
 - Added statement about risk to receptors as a priority

ECAF and INSTRUCTIONS



Revisions:

- Contaminants Table (Part VIII.)
 - Reduction of information requested
 - ✦ Current max in soil (e.g., pre- or post- remediation)
 - ✦ Historical and current max in groundwater
 - Clarification of examples
- LEP information moved, now before CP Certification (Parts IX. and X.)
 - Added references to statutes and regulations
- Instructions updated to reflect changes to the form

ECAF QUESTIONS / COMMENTS



THANK YOU FOR PARTICIPATING!

www.ct.gov/dep/remediation



ENGINEERED CONTROL GUIDANCE



ENGINEERED CONTROL GUIDANCE



- Changes made to EC Guidance and Application Parts 1 & 2
 - LEP no longer required
 - Information is no longer required to be certified by an environmental professional
 - Flexibility regarding:
 - ✦ alternatives to PE stamp for engineering design
 - ✦ delays in the installation of the EC
 - ✦ timing of posting financial assurance
 - Clarifications to Appendix C on financial assurance

ENGINEERED CONTROL QUESTIONS / COMMENTS



THANK YOU FOR PARTICIPATING!

www.ct.gov/dep/remediation



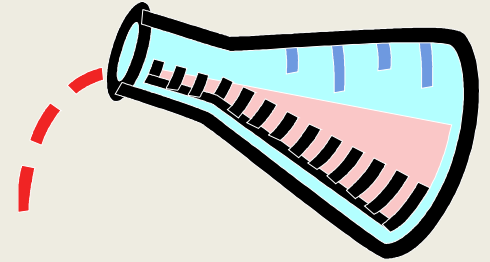
REASONABLE CONFIDENCE PROTOCOLS GUIDANCE



RCPs GUIDANCE



BACKGROUND

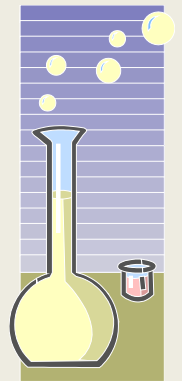


- RSRs use numeric criteria
- Analytical data may be biased, need to understand the quality of the analytical data to make decisions that are based on data of **known and sufficient quality**
- RCPs make it easier to obtain analytical data of known quality

RCPs GUIDANCE



- Clarifications were made to the Preamble:
 - RCPs are one way to obtain analytical data of known quality
 - Developed to facilitate both EP evaluation and DEP review



RCPs GUIDANCE



BENEFITS OF USING RCPs:

- Consistency in evaluation and presentation of data quality information that will facilitate review
- For non-RCP procedures, DEP will ask how the analytical data is of known and documented quality
- Use of non-RCP methods may involve a commitment of additional resources



RCPs

QUESTIONS / COMMENTS



THANK YOU FOR PARTICIPATING!

www.ct.gov/dep/remediation



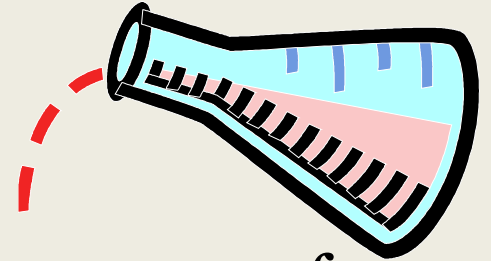
DATA QUALITY ASSESSMENT/DATA USABILITY EVALUATION GUIDANCE



DQA/DUE GUIDANCE



NOW THAT THERE IS DATA OF KNOWN QUALITY...

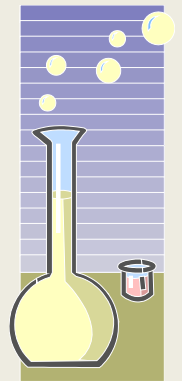


- Describes a CTDEP- accepted, two-step process for data evaluation using the PARCCS parameters
- **PARCCS Parameters** = precision, accuracy, representativeness, comparability, completeness and sensitivity

DQA/DUE GUIDANCE



- Clarifications were made to the Preamble:
 - One approach for evaluating analytical data in relation to its intended purpose
 - Developed to facilitate both EP evaluation and DEP review



DQA/DUE GUIDANCE



BENEFITS OF USING DQA/DUE:

- Provides consistency in evaluation and presentation of data quality information that will facilitate review
- An alternative process should be documented in order to explain the thought process
 - May involve a commitment of additional resources



DQA / DUE QUESTIONS / COMMENTS



THANK YOU FOR PARTICIPATING!

www.ct.gov/dep/remediation



PUBLIC PARTICIPATION



- Questions on agenda items
- Suggestions on how the roundtable may be most useful
- Ideas for agenda items at future meetings



GENERAL QUESTIONS / COMMENTS



THANK YOU FOR PARTICIPATING!

NEXT MEETING: FEBRUARY 8, 2010

SEE WEBSITE FOR DETAILS

www.ct.gov/dep/remediation



2003 PROPOSED RSR REVISIONS VOLATILIZATION CRITERIA



2003 PROPOSED VOLATILIZATION CRITERIA



- Why they came to be
- DEP policy then...
- And now...clarification of DEP policy
- How to use the 2003 proposed volatilization criteria