

Questions Each State Was Asked to Address

- · What term is your state using to describe mildly contaminated soil?
- Under what authority are you regulating soil that is <u>not</u> generated from a site in your waste site cleanup program and that does not have contamination levels that make it a regulated hazardous waste?
- If soil has contamination at levels below your residential cleanup standards, is it regulated?
- · What are the primary uses for mildly contaminated soil in your state?
- Does your agency review and approve/disapprove proposals for soil use/s as a beneficial use determination/s or under another program? If so, what is the authority and how does the process work?
- Does your agency promote particular uses? If so, how? How has risk communication with the public been managed?
- What are the top three challenges/problems your state is facing related to mildly contaminated soils? Are you facing issues with inter-state shipments?





Department of Environmental Conservation

Soil Reuse in New York

Soil Reuse Programs Across the NEWMOA States A NEWMOA Webinar November 7, 2018 Kathy Prather Division of Materials Management NYSDEC





Are soils with contaminants below residential soil cleanup standards, regulated?

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Yes. All soils excess to the need of the generator are regulated - even clean soil, if it is not used appropriately.

Soils that test clean chemically can contain nuisance or harmful *physical* contaminants such as slag, ash, refuse, or C&D debris.

NEW YORK STATE OF OPPORTUNITY Conservation

Department of Environmental Conservation

What are the primary uses for mildly-contaminated soil in NY?

As Fill:

- Development in New York City
- To raise floodplain or coastal development elevations for climate resiliency
- Mine reclamation and general grade adjustment upstate



Department of Environmental Conservation

Does your agency promote particular uses? If so, how? How has risk communication with the public been managed?

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- "Do It Yourself" pre-determined BUDs for soil reuse are found in Section 360.13
- New regulations seek to match fill material characteristics to appropriate categories of use (on next slide)
- · Case-specific review of soils is always possible
- · On-site use is broadly exempted
- Rulemaking process included public review. Soil Cleanup Objectives from NY's Superfund/ Brownfield program offer "built-in" risk assessment in the form of screening concentrations.



Unrestricted Fill

- Soil originates from outside New York City
- No visual evidence of chemical or physical contamination (including bits of concrete, brick, or asphalt)
- No history of site use or spill events
- · No chemical testing required
- · Can be used anywhere not prohibited by other law



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ust test:			
Fill Material Type	% Inert, Non-Soil Material	Chemical Concentration Criteria	Allowable Use
General Fill	Zero	Lower of Residential & Groundwater SCOs in Part 375	Anywhere except undeveloped or agricultural land
Restricted- Use Fill	40	Same as General, but up to 3 ppm Ba(P) equivalent	On any land with more heavily contaminated material or in transportation corridors
Limited-Use Fill	100	Same but up to Commercial SCO metals; Ba(P) equiv.	Under foundations or pavements, above the water table

Contaminated Fill

- · Fails chemical testing for any previous use category
- · Solid waste subject to transport and disposal regulations
- **UNLESS** a **case-specific BUD** is obtained for specific use and place.



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Maine: Beneficial Use of Mildly Contaminated Soil

David Wright, Remediation Randy McMullin, Solid Waste

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION Protecting Maine's Air, Land and Water







Maine primary uses for mildly contaminated soil

- Construction Fill
- Process into Road/parking lot asphalt or underlayment
- Landfill construction / alternative daily cover

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

www.maine.gov/dep



















Reclamation Soil Continued

- The Reclamation soil ACOs are voluntary.
- People can take in soil without and ACO, which is called "at-risk".
- So why do people negotiate them?











NEWMOA Soil Reuse Workgroup

7 November 2018 Tami Wuestenberg, Jeff Bourdeau, & Kristi Herzer Vermont DEC Vermont DEC

Waste Management and Prevention Division



VERMONT

What term is your state using to describe mildly contaminated soil?

- None
- Development Soils
 - PAHs, Arsenic, and Lead contaminated soils only
- Background Soil Study



ACT 52- Development Soils

- Where did Act 52 come from
- Act 52 Requirements
 - Adopt a Rule that Includes Statewide Background concentrations of PAH, Arsenic, Lead
 - Create a mechanism to dispose of soils that are above background and below maximum contaminant levels (development soils)
 - Allows for Development Soils to be categorized as ADC

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Background Soil Study



- 100 square mile grid
- Largest municipality in each grid identified
- Targeted properties:
 - Municipal/State properties (lawns, parks, forests); school lawns; cemeteries
- 115 grids (A-Q; 1-9)
- Total of 130 property samples and 17 duplicate (13%)
- Several grids not collected due to lack of municipal cooperation or state property



Investigation and Remediation of Contaminated Properties

Implementation

BACKGROUND VALUES VS STANDARDS

Background Value (PPM)

Compound	Non-Urban	Urban
PAH	.026	.58
Lead	41	111
Arsenic	16	16

IRULE (PPM)

Compound	Residential	Urban BKD	Industrial
PAH	0.076	0.58	1.54
Lead	400		800
Arsenic	16		16

Under what authority are you regulating soil that is <u>not</u> generated from a site in your waste site cleanup program and that does not have contamination levels that make it a regulated hazardous waste?

 None; we do not regulate soils that are below our standards.



If soil has contamination at levels below your residential cleanup standards, is it regulated?



What are the primary uses for mildly contaminated soil in your state?



- Despite not having a definition for MCS, VT sends a lot of low level contaminated soil to the landfill as Alternative Daily Cover
- Depending on contamination type and concentration, attempt to limit soils moving offsite.
- Currently working with VTrans to reuse some soils under roadways; still in process.



Does your agency review and approve/disapprove proposals for soil use/s as a beneficial use determination/s or under another program? If so, what is the authority and how does the process work?

- Strictly speaking we do not.
- Once soils are sent to the landfill, they can petition for BUD, which reduces disposal costs.
 - This is within our Solid Waste Program, but the landfill has the final say if soils are disposed of as Alternative Daily Cover.

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Does your agency promote particular uses? If so, how? How has risk communication with the public been managed?

• We do not promote particular uses.



- 1. Public perception
- 2. Working through IRule and getting on the same page
- 3. VDH standards very conservative
- Not many issues, but sometimes out-ofstate soils cause citizen strife (NIMBY)



VERMONT

Management of Mildly Contaminated Soils in New Jersey

Prepared by Tom Farrell, CHMM, Chief New Jersey Department of Environmental Protection - Bureau of Solid Waste Compliance and Enforcement November 7, 2018

Terms Used to Describe Mildly Contaminated Soils in New Jersey

MARE	
Unofficial Vernacular:	"Dirty Dirt".
□ Per N.J.A.C. 7:26 E –1.8	Technical Requirements for Site Remediation - Definitions, the terms "Alternative Fill" and "Historic Fill Material" are used.
□ Per N.J.A.C. 7:26 – 1.4	Solid Waste Regulations – Definitions, note the term "Contaminated Soil".

Authority to regulate soils not generated from a remediation

site that are not Hazardous Wastes

Pursuant to N.J.A.C. 7:26 E-5.2, the Technical Requirements for Site Remediation – Specific Remedial Action Requirements, sites undergoing remediation may receive soils that were/were not generated by remediation provided such soils meet the following criteria:

- a.) the contaminants present in the imported soils are also present in the existing soils within the area of concern (AOC);
- b.) the maximum contaminant concentration in the imported soil is < the 75th percentile of contaminants in the existing soils within the AOC;
- c.) The volume of the imported soils may not exceed that necessary to complete the remediation without written NJDEP approval.

Regulation of Soils Below Residential Cleanup Standards

- Pursuant to N.J.A.C. 7:26 E -1.8 The Technical Requirements for Site Remediation-Definitions, the term "Clean fill" states that all applicable remediation standards, site-specific alternative standards, interim standards, criteria or action levels must be met in order for the fill to be considered "clean" for the particular use. Some of these standards/action levels/criteria, such as concerns for the impact to groundwater, exist irrespective of property use. A residential site undergoing remediation must meet the most stringent of such applicable standards, criteria or action levels in order for such fill not to be regulated, absent the concerns noted below.
- □ For a site that is not undergoing remediation, soils may still be regulated if they are being placed subject to regulation by our Land Use Program (ex. Wetlands, Stream Encroachment) or, the local Soil Conservation District (if over 5,000 sq. ft. of disturbance), or via a local Soil Importation Ordinance.
- □ Note: A few compounds exist that have Non-Residential Direct Contact Soil Remediation Standards that are more stringent than the Residential Direct Contact Soil Remediation Standards. As such, for sites not undergoing remediation, if testing of soils imported into a residential area is performed, the results must meet the most stringent of the two.



Methods to Receive Approval to Re-Use Mildly Contaminated Soils

□ For non-remediation sites, Beneficial Use Determination (BUD) Approvals pursuant to the Solid Waste Management Act regulations at N.J.A.C. 7:26-1.7(g).

For certain remediation sites, a Licensed Site Remediation Professional (LSRP) has the authority to approve soil re-use pursuant to N.J.A.C. 7:26 C, the Administrative Requirements for the Remediation of Contaminated Sites.



BUD Process

BUD Application Form

o <u>http://www.nj.gov/dep/dshw/rrtp/bud.htm</u>

- Requires site background information, lab analyses, certification and fee.
- Documentation of BUD is submitted via a Certificate of Authority to Operate (CAO).

CAO will contain specific requirements:

- Transport, distribution and management provisions for donor and receiving sites.
- Specific requirements for out-of-state BUDs.
- Issued for a specified time (2 years).

LSRP Process

For sites undergoing remediation in NJ, CAO- BUDs are issued only for nonsoil fill material.

□ LSRPs prepare a Remedial Action Workplan which either incorporates the CAO-BUD for non-soil fill or presents an evaluation of the suitability of the imported soil to be used as fill.

Once the remediation is completed and a Remedial Action Report is submitted, the LSRP applies for a Soil Remediation Action Permit which, once granted, will list the monitoring and reporting requirements to ensure that any engineering and institutional controls are maintained and effective.

Promotion of Soil Re-Use and Risk Communication

- While the Department is in favor of appropriate re-uses of mildly contaminated soils, we do not promote any one specific use, rather, we point out the benefit of saving landfill space.
- NJDEP is currently working on a model Soil Importation Ordinance to share with all NJ Mayors with the goal of standardizing minimum appropriate requirements. In addition, the NJDEP is working with our Division of Law to comment on legislation that would expand background checks into "dirt brokers", transporters, generators and purveyors of re-used soils.

Top 3 Challenges Related to Mildly Contaminated Soils

- 1.) Illegal dumping of soils mixed with construction and demolition debris from both in-state and out-of-state sources.
- 2.) Perception of public that all such dumping has created the next Superfund site.
- □ 3.) Lack of a viable public fund to remediate such sites when responsible parties cannot be found or are otherwise insolvent or uncooperative.

Limited Reuse Soils in New Hampshire

NEWMOA Soils Reuse Workgroup Webinar November 7, 2018

Jamie O'Rourke, P.G. Hydrogeologist, Solid Waste Management Bureau Waste Management Division New Hampshire Department of Environmental Services

Pamela Hoyt-Denison, P.E. Administrator, Waste Programs Waste Management Division New Hampshire Department of Environmental Services



#1 What Term is NH Using to Describe Mildly Contaminated Soil?

NH Uses "Limited Reuse Soils" (LRS)

- For NH, "LRS" is better descriptor than "Mildly Contaminated Soils"
 - "Mildly contaminated" label does not clearly convey its regulatory status
 - "LRS" indicates there are sustainable material management options
 - The term has been well-received by regulated community
- LRS are soils and sediment that contain regulated contaminants where:
 - Concentrations of regulated contaminants in soil/sediment is greater than concentrations in natural background ($[C_s] > [C_{nb}]$) but less that the Soil Remediation Standards ($[C_s] < [SRS]$)
 - Impacted soil is not a hazardous waste per HW determination
 - Presence of contaminants is not attributed to a regulated release



#3 Does NH regulate soil with contamination below Residential Cleanup Standards??

- All "Soils with Contamination" are regulated.
- "Contamination" means "...the presence of any regulated contaminant...other than naturally occurring substances at naturally occurring or background levels, in soil...at a concentration that has potential to adversely affect human health or the environment."
- NH has no residential specific soil standard.
- NH has a Soil Remediation Standard (SRS) that applies to the entire state.

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Does NH Provide Beneficial Use Determinations (BUD) of LRS?

- NH has no "BUD" process for any materials
- Instead, NH rules provide for Certification of Waste-Derived Products (Env-Sw 1500; "CWDP")
- Two routes for obtaining certification:
 - 1. Certain "families" of waste-derived products are automatically certified by rule. For example--
 - products derived from in-kind waste materials (glass to glass; paper to paper; etc.)
 - products meeting certain published specifications
 - 2. Custom approval via custom application demonstrating wastederived product is comparable to virgin-derived equivalent product or meets alternative criteria

All waste-derived products distributed for use in NH, including LRS, are subject to NH's CWDP Rule <u>whether produced in or out of state.</u>



#6b How is NHDES Promoting Particular Uses of LRS?

Formal Presentations at / Open Communication with...

- Municipal association meetings
- Professional consultant organizations
- Trade / Industry associations

Through Project Management...

 Fielding questions from consultants, developers, or municipal officials on project by project basis



- Lack of dedicated resources for program development
- Societal aversion to risk at any level: public, private industry, political, etc.
- No centralized policy and data repository of statewide analytical results
- Statutory complications

#76 Are You Facing Issues with Inter-State Shipments?

- · Interstate shipments are largely unknown
- Contaminated soils are very likely moving into and out of NH without due regard for regulations
- Currently, no comprehensive data collection system
 - State law requires commercial solid waste haulers to register and report annually; limited enforcement ability
 - Bills of lading required per Env-Sw 903.06
 - Permitted receiving facilities must report annually
 - Landfills (disposal quantities and ADC)
 - Processing /treatment--NH has one permitted process and treatment facility, (EMSI in Loudon), that receives and reports its in and out of state contaminated soil receipts



Contact Information

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NVIRONMENTAL ROTECTION

Reuse of "Mildly Contaminated Soil" in Connecticut

Webinar Presentation to the NEWMOA Soil Reuse Workgroup

November 7, 2018 Presented by Pat DeRosa and Kevin Sullivan

Connecticut Department of Energy and Environmental Protection

Introduction

Connecticut has an overarching antidegradation policy:

- "Thou shalt not create a <u>new</u> release area" or
- "Don't put contaminants where they don't already exist".

Connecticut Department of Energy and Environmental Protection

Question 1: What term does Connecticut use to describe mildly contaminated soil?

"Mildly contaminated soil" not defined per se

- Generally thought of as polluted soil which meets CT Remediation Standard Regulations (RSR) soil criteria applicable to where it is going to be placed
- Soils that could be eligible for reuse under the RSRs, assuming all applicable placement criteria are met

Question 2: Under what authority does Connecticut regulate soil that is not generated from a site in the waste site cleanup program and that does not have contamination levels that make it a regulated hazardous waste?

CT DEEP does not <u>actively</u> regulate soil outside a State cleanup program, however...

CONTINUED - Question 2:

The Connecticut statutes (CGS 22a-432) prohibit discharge to the waters of the State without a permit and provides the Commissioner with enforcement authority to pursue parties that cause or maintain (property owner) such discharge

- This includes releases in soil which could contaminate groundwater or surface water
- If DEEP becomes aware of such discharge, DEEP has the authority to pursue cleanup.
- DEEP exercises enforcement discretion

CONTINUED - Question 2:

Additional requirements:

- Clean Fill term is in Solid Waste Regulations, applies to deposition/reuse as soil/fill
- Solid Waste permit requirements apply to processing and disposal
- Beneficial Use applies to reuse in a product
- Order authority to clean-up potential sources of pollution
- Spills authority to require clean-up of the spill and the environmental harm

Question 3: If soil has contamination at levels below Connecticut's residential cleanup standards, is it regulated?

Yes.

For soil polluted below residential exposure criteria to be considered "clean fill" rather than a discharge or release area subject to enforcement action, it must meet the reuse criteria in the RSRs. This specifies where it can be placed and whether notice or approval by DEEP is required.

Question 4: What are the primary uses for mildly contaminated soil in Connecticut?

- Can remain at cleanup site if it meets RSR criteria
- Can get approval for off-site use for fill (grading) if soil meets applicable criteria (reuse of polluted soil)
- Can get approval to use at a Solid Waste landfill as alternate daily cover, but must meet applicable RSR criteria

CONTINUED Question 4:

- 2 facilities have permits to process and allow reuse of contaminated soil
 - 1 Beneficial Use Determination (BUD) for use in concrete
 - 1 soil desorber under Solid Waste permit that produces approved clean fill
- 1 approval for a Soil Management Plan.
 - Soil from utility trench excavations reused after testing by major gas utility

Question 5: Does CT DEEP review and approve/disapprove proposals for soil use/s as a beneficial use determination/s or under another program? If so, what is the authority and how does the process work?

- RSR reuse of polluted soil below criteria
- BUDs contemplate reuse and/or adding to a product
- Solid Waste permit for use as alternate daily cover at landfill

Question 6: Does CT DEEP promote particular uses? If so, how? How has risk communication with the public been managed?

• CT DEEP does not promote particular uses. It is our understanding that soil often goes out of state for reuse or disposal

Question 7: What are the top three challenges/problems Connecticut is facing related to mildly contaminated soils? Does Connecticut face issues with inter-state shipments?

- Expensive Lack processing or disposal outlets for material that exceeds criteria. Lack of approvable receiving sites for in-state reuse for soils below criteria
- Cumbersome All offsite reuse requires an approval, no clear, self-implementing process
- Placement in violation of regulations illegal, imported, contaminated soil, and soil reused as "clean fill" without regard for approval or possible contamination

Questions?

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Connecticut Department of Energy and Environmental Protection



ANSWERS TO QUESTIONS

- What term is your state using to describe mildly contaminated soil? Urban Soils
- Under what authority are you regulating soil that is not generated from a site in your waste site cleanup program and that does not have
 contamination levels that make it a regulated hazardous waste? Our Site Remediation Regulations
- If soil has contamination at levels below your residential cleanup standards, is it regulated? No
- · What are the primary uses for mildly contaminated soil in your state? Grading and shaping material for landfills.
- Does your agency review and approve/disapprove proposals for soil use/s as a beneficial use determination/s or under another program? If so, what is the authority and how does the process work? Yes, under our Beneficial Use Policy at http://www.dem.ri.gov/programs/benviron/waste/pdf/budpol.pdf.
- Does your agency promote particular uses? If so, how? How has risk communication with the public been managed? No, Beneficial uses
 require public notice/ public hearing.
- What are the top three challenges/problems your state is facing related to mildly contaminated soils? Are you facing issues with interstate shipments? When it leaves the site to go to another state we have no mechanism to control shipment. A lot of time, contamination is not found because soil is not sampled. Heterogeneous soils are often not adequately characterized.

BENEFICIAL USE DETERMINATION- BUD FOR USE AS GRADING AND SHAPING AT LANDFILLS

 Whenever the proposed end use for a recycled product involves land application, the applicant shall address the need for applicable engineering standards and controls in accordance with the Solid Waste Regulations(e.g. final cover systems, leachate collection and removal systems, and gas control and recovery systems) to provide for the safe land application end use of BUD materials. End uses involving land application shall be presumed to be low utility uses subject to heightened scrutiny as to whether the use constitutes beneficial reuse or is simply an alternative means of disposal

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