



Connecticut Department of Energy and Environmental Protection



Beneficial Use Regulations: Goals

- Simplify reuse of materials through clear, workable definitions and categorizations
- Simplify environmentally protective and practical materials reuse options to advance cost-effective infrastructure and remediation projects.
- Create opportunities that encourage development of recycling and treatment facilities for soil and dredged material
- Reduce, reuse, recycle
- Save significant money



Regulatory Reform must advance

- 70% of all infrastructure project soils characterized are below lowest residential exposure criteria and groundwater pollutant mobility criteria—projects need clear options
- \$62/ton saved when soil reused instead of buying new soil
- Landfills are not just pricey, many are closing & space is scarce



Key Tasks

- Clarify existing definitions: revise or eliminate key terms
 - e.g., "contaminated dredge spoils," and "clean fill"
- Identify "categorization" for soils with detectable contaminant levels
 - i.e., segment the term, "polluted soil," to distinguish levels of contamination
- Clarify regulatory structure for self-implementing beneficial uses

Soil quality categories established in regulations means transparent communication of market transactions ["you get what you pay for"]



Opportunity: Environmental improvement examples

- Reduced greenhouse gas emissions from minimizing transportation waste [driving materials farther than necessary, i.e., to landfills]
- Enhanced compliance with State Water Quality Standards and State Solid Waste Management Plan
- Reduced mining of materials



Opportunity: Economics improvement: examples

- DOT: \$35 million+ saved due to staging and reuse options
- DOT Norwalk interchange improvements project: potential \$6 million saved
- Northeast Utilities/Yankee Gas estimates significant savings for gas expansion projects
- MDC similarly saves with each mile
- Construction projects: e.g., DPW/DCS saved \$3 million from demonstrating reusability of materials in recent project
- Remediation projects
 - e.g., Newhall project reused soils as cover material saving project \$10 million



Current State—Soil--reuse unclear

	Soil moved	Soil reused	Soil disposed
Approved by DEEP	Numbers exist, but hard to compile	11 applications approved, 1 denied in 5 years (<1% of universe)	Total unknown, 107,000 cubic yards reused in 2012 as cover material to close Hartford landfill
Managed with DEEP input (dredged materials and others)	Varies each year	~ 5%	~ 95%
Managed in infrastructure projects	Less than one million cubic yards/year	10%	70% chemically suitable for reuse 20% chemically unsuitable
Managed by other means	?????	Majority of soil ????	?????

Current State: Dredged Materials

- ACOE projects in CT range from 100K CY to 1 million CY per project.
- Vast majority of sediments are high water content silts & clays with low levels of contaminants.
- Currently these sediments are managed at open water disposal sites in LIS.
- However, there are increasing calls to end the open water disposal practice in favor of upland management.

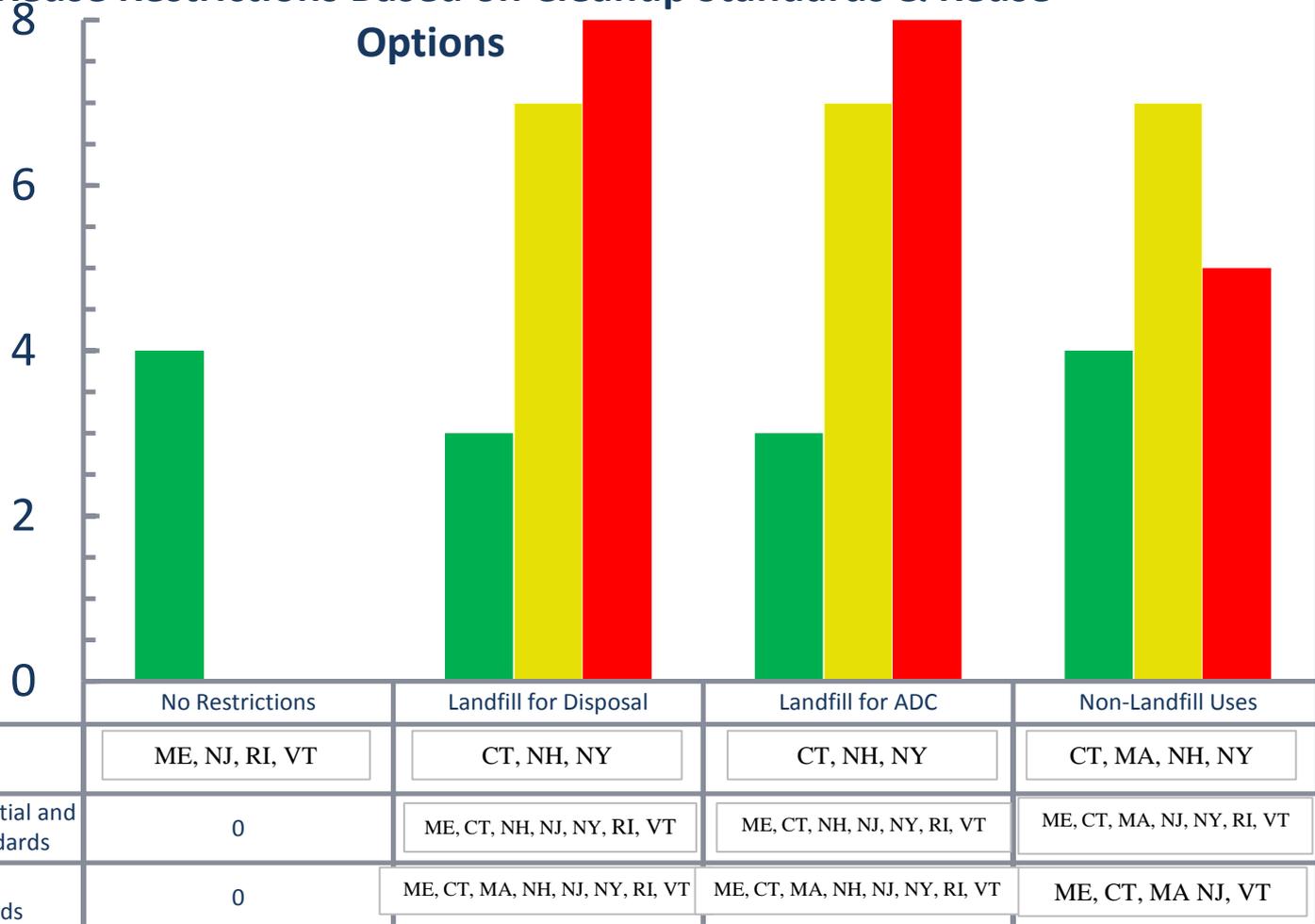


Benchmarking

State Soil Reuse Restrictions Based on Cleanup Standards & Reuse Options

**Number of
NEWMOA-member
States**

- Reuse of Soil Below Residential Cleanup Standards
- Reuse of Soil Between Residential and Commercial/Industrial Standards
- Reuse of Soil Above Commercial/Industrial Standards

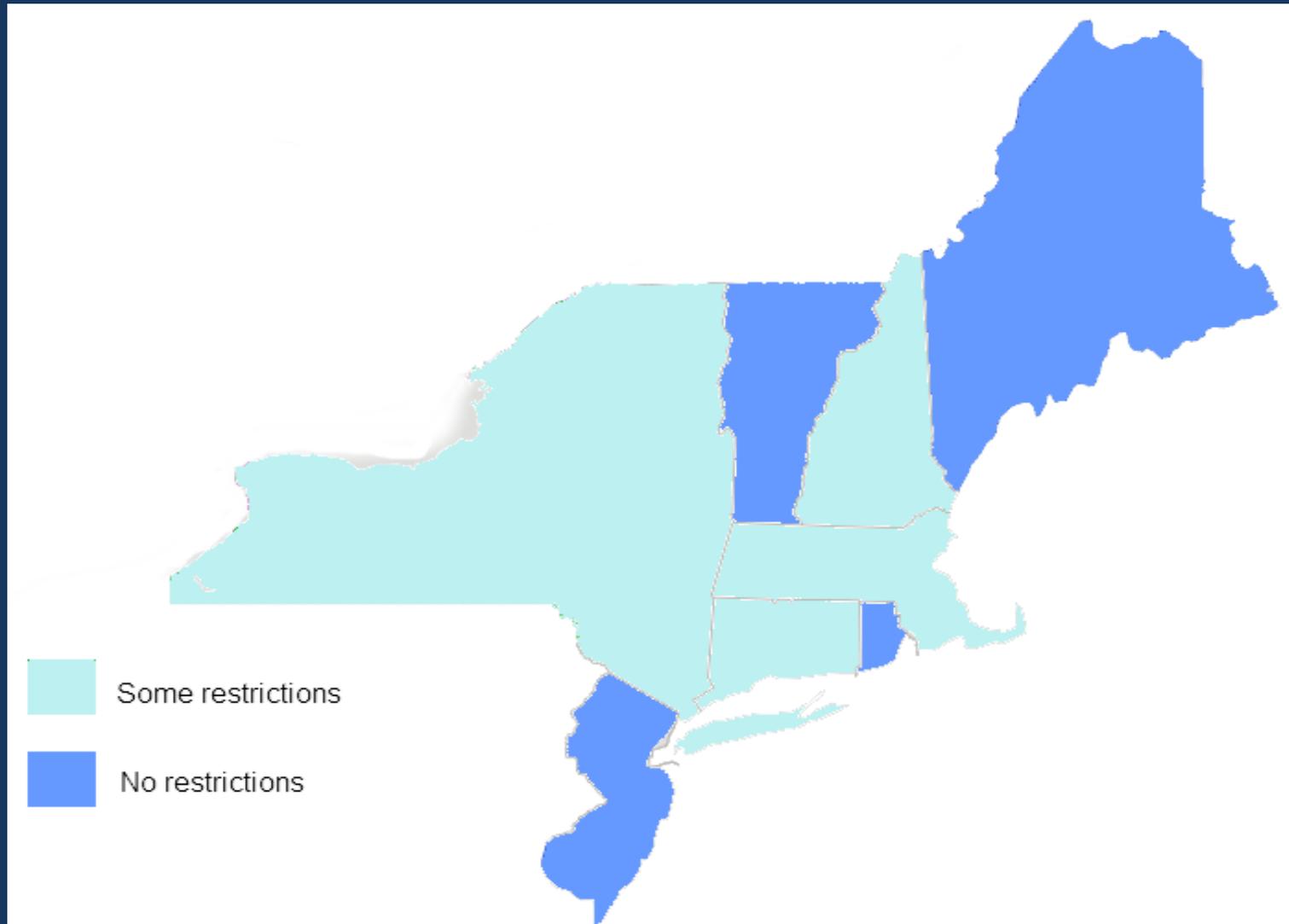


■ Reuse of Soil Below Residential Cleanup Standards	ME, NJ, RI, VT	CT, NH, NY	CT, NH, NY	CT, MA, NH, NY
■ Reuse of Soil Between Residential and Commercial/Industrial Standards	0	ME, CT, NH, NJ, NY, RI, VT	ME, CT, NH, NJ, NY, RI, VT	ME, CT, MA, NJ, NY, RI, VT
■ Reuse of Soil Above Commercial/Industrial Standards	0	ME, CT, MA, NH, NJ, NY, RI, VT	ME, CT, MA, NH, NJ, NY, RI, VT	ME, CT, MA, NJ, VT



Regional Variability in Regulation of Soil Reuse with Contamination Below Most Stringent Criteria

per responses from NEWMOA states



Draft Quality Categorization

Category	Standards	Reuse
Res1	Tested to be below 50% of GA PMC and Res DEC, no “persistent bioaccumulative toxins”	Unrestricted
Res2	Tested or determined by knowledge of origin to be below the lowest of GA PMC and Res DEC	Unrestricted except : <ul style="list-style-type: none">• no placement below water table;• no locations within 75 ft of drinking water well



Draft Quality Categorization

Res3	Tested to be below GB PMC and below Res DEC	Use in GB & GC areas except: <ul style="list-style-type: none">• no placement below water table;• no locations within 75 ft of drinking water well
IC	Below GB PMC and below I/C DEC	Use in GB & GC areas except: <ul style="list-style-type: none">• no placement below water table;• no locations within 75 ft of drinking water well and• only at industrial and commercial locations (no residential use) <i>—need to consider what mechanism/regulations needed when land use changes at these and all locations that change use</i>



Draft Quality Categorization

<p>TU</p>	<p>Originates from public transportation corridor or utility corridor;</p> <p>Tested or determined by knowledge of origin to be below GB PMC and I/C DEC;</p> <p>Not otherwise contaminated by a release not associated with road or corridor use</p>	<p>Use in accordance with regulations</p> <p>Used solely in transportation and utility corridors under control of the State, town or utility that match the applicable DEC;</p> <p>(Like to like reuse)</p>
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Draft Quality Categorization

DF	Freshwater Dredged Materials	If associated with dam removal, Okay to reuse on site within the area of the historic impoundment and -either consistent with applicable DEC, or -otherwise approved by the Commissioner as a condition of the Dam Safety Permit •Managed like soil (characterization guidance needed)
DM	Marine Dredged Materials	•Managed like soil after treatment/processing as needed (characterization guidance and treatment/processing requirements needed) •Upland placement along bank according to regulation



Outcomes

- Private sector unlocks the value of these materials and sees a business opportunity that they can profitably advance as soil and sediment brokers and recyclers

This means we will:

- Keep materials in safe, productive use in commerce
- Encourage development of recycling facilities
- Close the infrastructure gap for soil and sediment treatment facilities

Reduce wasteful use of topsoil for purposes other than topsoil



Connecticut Department of Energy and Environmental Protection

Next steps

Adopt regulation by December 31, 2013

Task/Milestone

Projected Completion Date

1. Draft Proposed Regulation

Spring

2. Public Notice

Summer

3. Public Hearing

Summer

4. Submit final draft regulation to
Legislative Regulations Review Committee

Fall/Winter



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