



Department of  
**Environment &  
Conservation**

# Rule 0400-15-01 Re-use of Soil Containing Hazardous Substance Off the Site of Excavation

UNDERGROUND STORAGE TANKS AND SOLID WASTE DISPOSAL  
CONTROL BOARD

December 1, 2021

# Why soil reuse?



- Construction activities (primarily in urban areas) involves disturbance of material, like soil
  - Excavated and landfilled
  - Used as fill on-site or off-site
  - May have environmental impacts due to historical activities at a site

# Why reuse soil?



## Opportunities to

- Pro-actively avoid dispersal of contaminated soil from redevelopment sites that would present risks to human health or the environment
- Allow options and tools for the re-use of soil from redevelopment sites at appropriate locations where such will not present unacceptable risks to human health or the environment
- Avoid unnecessary soil disposal at landfills that is expensive and a poor use of landfill space
- Ensure that people living and working in areas to which contaminated soils are proposed to be or are moved are informed about their exposure risk

# Notice of Rulemaking Hearing

- Draft Rule released October 12, 2021, comments must be received by 4:30 PM CST, December 15, 2021.
- The proposed amendments intend to provide an exemption from the solid waste rules in Chapter 0400-11-01 provided the soil is managed in accordance with DOR's new Rule 0400-15-01-.04.
- This new rule is applicable to soil containing a hazardous substance or substances in concentrations above natural background that is or has been excavated and reused off the site of excavation.
- This Rule does not apply to soil; (1) Re-used on the same property, (2) That contains a hazardous substance or substances in concentrations at or below natural background, (3) That contains polychlorinated biphenyls (PCBs) regulated by the federal Toxic Substances Control Act, or (4) That contains hazardous waste subject to the Hazardous Waste Management Act.

# Soil Re-use Work Group

- Formed in Summer 2020 and met over approximately 9 months
- Goal: Support TDEC in developing a reasonable and efficient regulatory framework to bolster soil re-use that is supportive of economic development, protective of public health and the environment, and promoting of environmental stewardship.
- Representation
  - Real estate developers
  - Environmental non-profits
  - Tennessee residents
  - Environmental law/consulting
  - Waste management industry
  - State environmental and health agencies
  - Academia

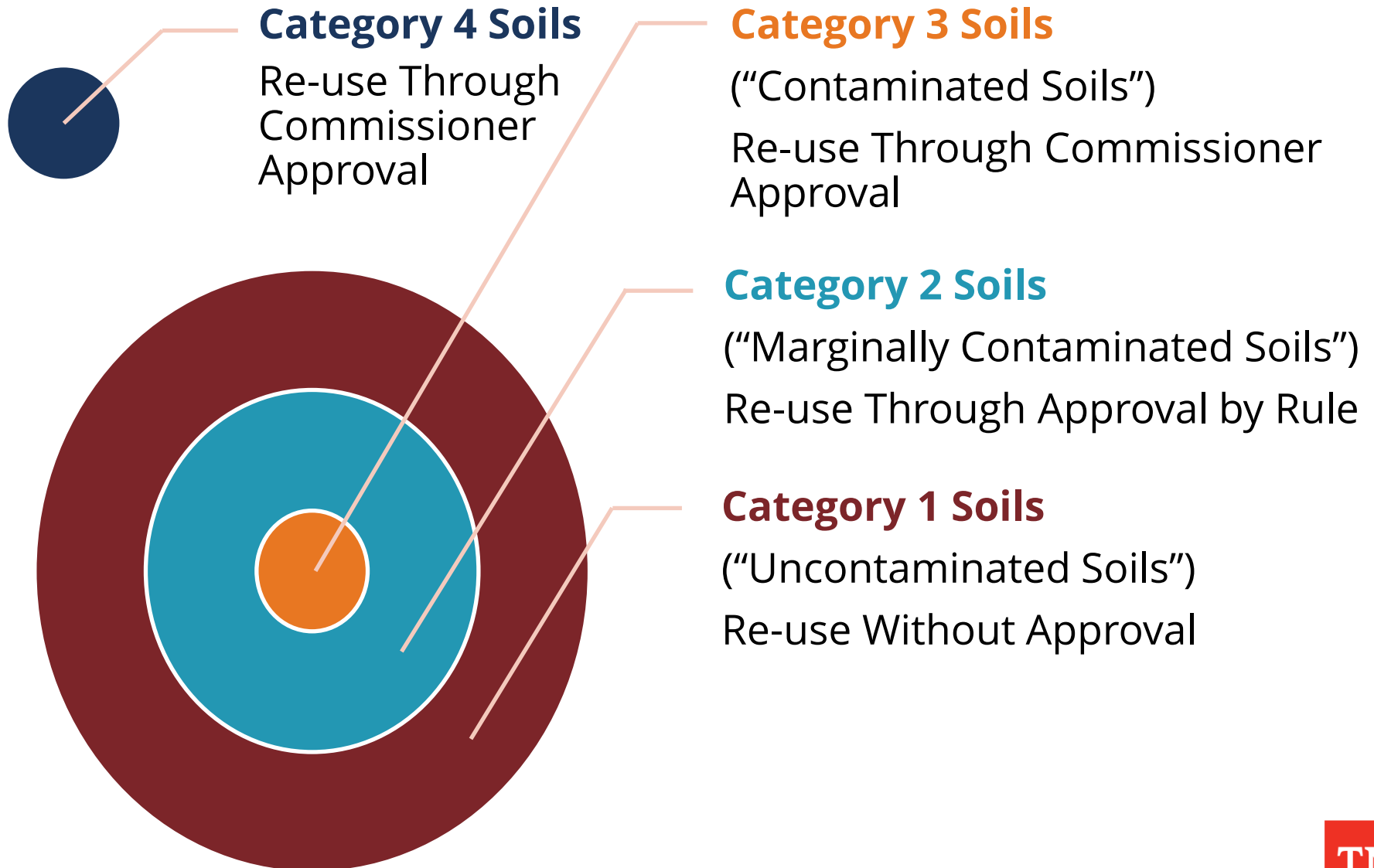


# Regulatory Framework

- Applies to soil that contains, or may reasonably be anticipated to contain, a hazardous substance(s) above natural background that is intended to be re-used off the site of excavation
- Provides guideposts for stakeholders to understand
  - Testing triggers
  - Testing requirements
  - Soil categorization
  - Allowable re-uses of soil
  - Approval requirements
  - Soil re-use plan requirements



# Framework Categorization



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## Category 1 (“Uncontaminated”) Soils

- At or below Natural Background Levels **OR**
- At or below EPA RSLs for Residential Soils

*Reuse for any purpose requires no approval*

## Category 2 (“Marginally Contaminated”) Soils

- Above Natural Background Levels **AND**
- Equal to or above EPA RSLs for Residential Soil **AND**
- Below EPA RSLs for Industrial Soil **AND**
- Equal to or below 1.1 ppm of polyaromatic hydrocarbons (PAHs)

*Reuse requires approval by rule*

## Category 3 (“Contaminated”) Soils

- Above Natural Background Levels **AND**
- Equal to or above EPA RSLs for Industrial Soils

*Re-use requires approval by Commissioner*

## Category 4 Soils

- Generated at a facility under state/federal enforcement action for investigation or clean-up of contamination **OR**
- Mixed or blended prior to final placement with soil that contains hazardous substance(s) in concentrations above natural background **OR**
- Contains volatile organic compounds **OR**
- Contains hazardous substance(s) in average concentrations that exceeds an excess cancer risk of  $10^{-6}$  and a hazard quotient of 0.1 **OR**
- Intended to be re-used at a residential property, area frequented by sensitive populations, or at/near ecologically sensitive area (except for Category 1 soil)

*Re-use requires approval by Commissioner*



# When to Test

Testing should occur if **ANY** of the following apply to the site from which soil is intended for re-use will be generated:

1. Documented/historic impact at site (e.g., TDEC or other data sources)
2. Recognized environmental condition included in Phase I assessment
3. Soil exhibits characteristics that indicate contamination (odor, visible signs)
4. Owner, generator, or other party knowledge of environmental conditions or contamination
5. Soil intended for re-use at residential property, area frequented by sensitive populations, ecologically sensitive area
6. Listed site

*\*How much to test will vary based on factors such as size of site, consistency of soil at site, type of known environmental condition, or documented or historic impact, vintage of existing data sources, knowledge of non-native soil, etc....\**

# When Testing is not Required



You **DO NOT** have to test if soils you intend to re-use come from a site with all the following characteristics...

- Not listed
- No documented or historic impact
- No knowledge of environmental conditions or contamination
- No recognized environmental conditions in Phase I assessment
- No other reasonable visual or olfactory indicators of contamination encountered during excavation
- If impacted soil is re-used on-site (unless hazardous)

# Soil Reuse Plan

- Required for reuse of Categories 2-4 soil
- Submitted to TDEC and made available to the public
- Includes information about
  - Generator and contractor(s)
  - Soil composition description
  - Soil processing, if applicable, and transportation
  - Soil storage
  - Recipient site(s) of soil
  - Any engineering controls and/or land use restrictions, if applicable
  - Project schedule
- Allows for partial completion and modifications



# Additional Components

## Guidance

- Frequently Asked Questions
- Plain language guidance to assist with rule interpretation
- Best practices in soil re-use
- Educational and outreach materials and recommended process to encourage community notification

## Templates

- Soil Re-use Plan template
- Community notification/engagement template
- Property signage template



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**Thank You!**