



**pennsylvania**

DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Environmental Cleanup & Brownfields

# **Land Recycling Program Technical Guidance Manual Section III Revisions**

**Cleanup Standards Scientific Advisory Board Meeting  
July 13, 2016**

**presented by:  
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PADEP**

# TGM Revision Process

## General Approach

- Each Technical Guidance Manual (TGM) section to be revised and presented to Cleanup Standard Scientific Advisory Board (CSSAB) for review
- Sections to be presented and reviewed at each CSSAB meeting in 2016.
- When all sections have been reviewed by CSSAB and revised, entire TGM will go out for public comment.

# Section II Revisions

## What is addressed in this draft

- New Section III is old Section IV (*General Guidance*) and has been renamed *Technical and Procedural Guidance* to be more specific
- Storage Tank Program Guidance subsection moved to interface section (new Section V)
- Long Term Stewardship subsection added – includes discussion of Uniform Environmental Covenants Act (UECA)

# Section II Revisions

## What is addressed in this draft (continued)

- Certain subsections were rearranged to improve clarity and flow
- Workgroup recommendations pertaining to this section have been addressed

# Section II Revisions

## What is not addressed in this draft

- Section references within text
- Updated figures
- Page numbering and formatting

# Fate & Transport Analysis

- Intro text in Fate & Transport (F&T) section rearranged to stress importance of F&T
- Clarified the relationship between surface water quality criteria (SWQC) and Medium Specific Concentrations (MSCs)
- Emphasized importance of seasonal variations in hydrologic data when developing a Conceptual Site Model (CSM)
- All references to FATBACK model removed

# Fate & Transport Analysis

- Emphasized spreadsheet models on PADEP website not always suitable for all situations
- Explained how the site specific standard (SSS) can still be met even if SWQC are exceeded
- Updated Edge Criterion Tables to reflect new groundwater MSCs and SWQC
- Revised example groundwater discharging to surface water problem

# Attainment with Statistical Methods

- Encouraged the use of free software to conduct statistical analysis described in TGM
- Combined data quality objective (DQO) subsection with practical quantitation limit (PQL) subsection
- Addressed statistical test Q&As 40 and 205 as requested in CSSAB recommendations



# Long Term Stewardship

- New subsection to address UECA, activity and use limitations (AULs) and post-remediation obligations
- Definition of long term stewardship added
- **Provided discussion of model environmental covenant and how it should be used**
- Explains relationship between environmental covenants and AULs

# One Cleanup Program

- **New subsection added to TGM**
- Describes purpose, provisions and applicability, implementation, and benefits of the One Cleanup Program

# Data Quality & PQLs

- DQO language moved from statistical methods subsection
- Moved discussion of blank sample analysis from risk assessment subsection to this subsection
- The process of how PQLs are determined was revised and the PQL table was updated and simplified

# Site Specific HH Risk Assessment

- HHRA subsection was confusing so was reorganized for clarity
- Subsection added regarding when do a risk assessment is necessary
- Risk assessment screening process updated
- Added a discussion of how direct contact values may be used to determine contaminants of concern for sites where groundwater pathway has been eliminated

# Site Specific Eco Risk Assessment

- Language added to alleviate confusion between the Statewide health standard (SHS) and SSS ecological screening processes
- Added text about performing Pennsylvania Natural Diversity Inventory (PNDI) searches
- Provided sources for ecological risk screening values
- Revised ecological risk assessment process flow chart for clarity

# Next Steps

- Continue to update figures throughout TGM and add case studies
- Revise Sections V and VI
- Add final vapor intrusion guidance as Section IV



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**Special thanks to:**  
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**Discussion?**