



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION



Bureau of Clean Water

Update of DEP Guidance on Wastewater Land Treatment Systems and Reuse

Water Resources Advisory Committee

July 21, 2022

Tom Wolf, Governor

Ramez Ziadeh, P.E., Acting Secretary

Land Treatment

Land treatment – The controlled application of wastewater onto the land to achieve a designed degree of treatment through natural physical, chemical, and biological processes within the plant-soil-water matrix.

Land Treatment

Methods of land treatment described in this manual includes:

- Spray irrigation;
- Drip irrigation; and
- Large volume onlot sewage systems (including at-grade beds)

Anticipated Schedule

- Present Proposed Changes to Water Resources Advisory Committee
- Publish Draft in Pa Bulletin – 4th Quarter 2022
- Publish Final in Pa Bulletin – 4th Quarter 2023

Guidance Document Changes

- Reorganizes content in a logical progression
- Project Flowchart
 - Existing flowchart is 6 steps in ½ page.
 - Revised flowchart includes more detail
 - What information is required
 - When the information is required

Guidance Document Changes

- Added definitions
- Chapter added on planning
 - Steps required in planning phase
 - Significant field work to show that the project has adequate land application area.
 - Demonstration of feasibility of project

Guidance Document Changes

Provided detailed design information on spray irrigation.

- 1997 manual does not give detailed information on design requirements
 - Storage
 - Application methods
- Revised manual provides detailed information on process design, including
 - Storage
 - Sprinkler requirements

Guidance Document Changes

- Addition of drip irrigation technology
- Detailed design information on large volume onlot systems

Guidance Document Changes

Elimination of systems that are not used in PA

- Rapid Infiltration
- Moveable sprinkler systems for spray
- Flooding/Inundation systems
- Overland Flow
- Constructed Wetlands

Questions

Kevin McLeary, P.E.
Municipal Facilities Division
kmcleary@pa.gov