NEW YORK STATE | Department of Environmental Conservation

Landfill Leachate - Considerations

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Background

- Leachate is generated at a landfill as a result of percolation of precipitation through the disposed waste and from the decomposition of organic wastes within the landfill.
- Landfills are designed to contain and collect leachate to protect groundwater at the landfill site and to allow for proper management.
- The standard method for managing landfill leachate has been disposal at WRRFs.
- The standard biological treatment processes at WRRFs are not designed to treat many of the chemical contaminants found in leachate.
- Technologies are now available whereby contaminants can be removed from landfill leachate and retained in a landfill.

Landfill Leachate - Considerations

- Minimize the re-introduction of contaminants into the environment
- Would require leachate from currently active MSW landfills and from currently active C&D debris landfills with leachate collection systems to be treated to remove contaminants and ensure the proper disposal of those contaminants.
- The treatment would occur prior to delivery of any treated leachate stream to a WRRF or other authorized discharge location.
- The concentrated residual waste resulting from treatment would be required to be properly disposed.

Landfill Leachate - Considerations

- Location that treats leachate would be permitted under Part 360 Series as a leachate treatment facility
- Leachate treatment may occur at the generating landfill, at another landfill, or at an alternate permitted location
- Treatment method would not be specified; instead, minimum performance/contaminant removal requirements would be specified
- Would apply to all operating MSW landfills and all operating C&D debris landfills with leachate collection systems at time of adoption, with built-in timeframes to allow for planning, design, testing, and construction

Landfill Leachate - Considerations

- Total costs for each landfill to evaluate, plan, and implement leachate treatment will vary considerably based on the approach and the technologies that the facility chooses to use to meet the new requirements, along with the volume of leachate that needs to be treated.

- Potential grant funding for municipalities
  - EFC - Bipartisan Infrastructure Law (BIL) funding to address emerging contaminants (ECs)
    Available for planning, design and construction activities that address ECs in wastewater, stormwater and nonpoint source pollution.

  - Links to EPA documents that outline the eligibilities for the BIL EC program:
    https://www.epa.gov/system/files/documents/2024-04/cwsrf-ec-ta-fact-sheet.pdf
    https://www.epa.gov/system/files/documents/2022-08/CWSRF%20EC%20FAQs_FINAL.pdf

Landfill Leachate - Considerations

- Currently, there are 25 active MSW landfills and 7 active C&D debris landfills with leachate collection systems.
- Based on the annual reports submitted for calendar year 2022, landfill leachate is disposed at 35 WRRFs located in New York State.
- Leachate volumes - Total volume for the 25 active MSW landfills and 7 active C&D debris landfills with leachate collection systems in 2022 = approx. 546,000,000 gallons

Landfill Leachate - Considerations

- Two stakeholder meetings have been held to receive feedback and ideas.
- Draft rulemaking package is complete and under internal review.

Department of Environmental Conservation