



**Environmental Research
& Education Foundation**

Lighting a path to sustainable waste management practices

Regulatory Affects on Leachate Disposal Strategies

EREF Regional Summit - Austin, TX

November 13, 2014

Presenter:

Pieter K. Scheer, P.E.

SMITH+GARDNER



- ▶ **Off-Site Methods:**
 - ▶ **Treatment Plant (POTW) (via pump & haul or force main)**
- ▶ **On-Site Methods:**
 - ▶ **Recirculation**
 - ▶ **Evaporation**
 - ▶ **On-Site Treatment Plant**
 - ▶ **Alternative Processes (Constructed Wetlands, Phyto-Covers, etc.)**



▶ Subtitle D (40 CFR 258):

- ▶ Nothing said about what we must do with collected leachate.... Relatively little is said about what we can do with leachate....
- ▶ 258.28(a)(2) allows leachate recirculation..... as long as standard liner/LCS is used....
- ▶ Also allows an owner to stop managing leachate (258.61(a)(2)).... if demonstration is made that leachate no longer poses a threat to human health and the environment....





▶ Subtitle D (40 CFR 258):

- ▶ Per surface water requirements (258.27), MSWLF units shall not:
 - ▶ Cause a discharge of pollutants into waters of the United States, including wetlands, that violates any requirements of the Clean Water Act, including, but not limited to, the National Pollutant Discharge Elimination System (NPDES) requirements, pursuant to Section 402.
 - ▶ Cause the discharge of a nonpoint source of pollution to waters of the United States, including wetlands, that violates any requirement of an area-wide or State-wide water quality management plan that has been approved under Section 208 or 319 of the Clean Water Act, as amended.



- ▶ **Publicly Owned Treatment Works (POTWs):**
 - ▶ Discharges regulated under Clean Water Act.*
 - ▶ Ability of POTW owner to meet their requirements greatly affects capacity to handle leachate.
 - ▶ Some entities are still in good shape.
 - ▶ Owner of landfill is owner of POTW with good capacity
 - ▶ Others not so much....
 - ▶ Large landfill in rural area – has Industrial User Permit No. 1..... of 1 at local POTW with limited capacity



**Also governs on-site methods which discharge leachate.*



- ▶ **Leachate Recirculation:**
 - ▶ **Allowed by Subtitle D... but only over standard liner/LCS system (unintended consequence of rule as written).**
 - ▶ **States which have implemented RD&D rules have mechanism to allow recirculation over alternative liners.**
 - ▶ **Implementation includes operation following State rules and policies (i.e. additional reporting, monitoring, etc.).**
 - ▶ **Operational drawbacks increased potential for seeps, odors, and discharge outside liner system (violation of rules).**





▶ Leachate Evaporation:

- ▶ Small atomizer units may not be affected.
- ▶ Larger units will likely require an air quality permit.

