

2018 NY Federation Conference



*Leachate Management
Observations & Concerns
an Industry Perspective*

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Managing Leachate – three issues

- *Leachate Generation - minimize*
- *Control Leachate Disposal Cost – increasing costs*
- *Changing Disposal Requirements – what is coming and are we ready for changes?*



■ *Generation Rates*

- ▶ *Increases with every new cell added*
 - ◆ *Fluff lift impacts*
 - ◆ *Stormwater Management key – properly shed as soon as possible*
- ▶ *Falloff not as predictable as thought*
- ▶ *As an Industry, not enough of effort and study here*





- *Leachate Generation – potential solutions*
 - ▶ *Accelerate Final Capping*
 - ▶ *Exposed Geomembranes*
 - ▶ *Stormwater Management – Infiltration*
 - ▶ *Other Areas of Infiltration to improve*
 - ◆ *Cover Quality*
 - ◆ *Run on / Run off*





Leachate Disposal Costs:

- *Significant cost increases in past few years*
- *In some cases, approaching 20% of operating costs*
- *Increased Management Time on the Issue*
- *Cost effective solutions becoming harder to find*



Leachate Disposal Costs:

■ *POTW Reliability*

- ▶ *Leachate is usually first to be cut off*
- ▶ *Spring Flows, Ammonia, Chlorides, H₂S*

■ *Recirculation – everything in moderation*

- ▶ *Understand the trends on quality over time*
- ▶ *Gas extraction issues – dewatering*
- ▶ *H₂S increases associated*
- ▶ *Part of the solution – healthy for decomposition*



Leachate Disposal Costs:

■ *On Site Treatment*

- ▶ *High Capital Costs*
- ▶ *Lower Costs per Gallon*
- ▶ *Designed for Growth*
- ▶ *Need for Turn-Key Solutions*
 - ◆ *Sustainability is key*
 - ◆ *Can you Permit – air and water*
 - ◆ *Understand the Contaminants*
 - ◆ *Risk Factors – future changes to air and water regulations*



Need for Long Term Sustainable Solutions

- *Biologic Based Systems*
- *RO and FO Systems*
- *Evaporation*
- *Electrical Coagulation*
- *Treat and Discharge Alternatives*
- *Etc.*
- *Some and All of the Above*



Need for Long Term Sustainable Solutions

Why Invest on-site?

- *Potentially Lower Costs*
 - ▶ *In some cases*
- *Sustainable*
- *Control Your Compliance*
- *Post-Closure (30 years plus.....long time period)*



Changing Disposal Requirements

- *Ammonia – Nitrogen Management*
- *PFOA / PFOS – next POTW Disposal Hurdle*
- *Pay Attention to your POTW Regulatory Environment*



POTW Concerns

- *Sudden changes / not predictable*
- *Perception of leachate – treatability/PR*
- *Easy Switch, shut us out because its easy*
- *At a minimum, have a backup*
 - ▶ *You will need to use it at some point*



Three Leachate Solutions Needed Now

1. *Minimize Leachate Generation*
 - ▶ *Make the problem a smaller one*

2. *Control Leachate Disposal Costs*
 - ▶ *Predictable sustainable solutions*

3. *Prepare for Changing Regulations*
 - ▶ *Know what is coming and prepare / invest*





Questions?

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