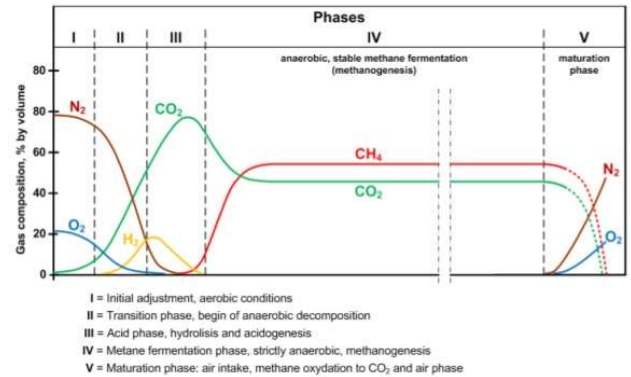


EOWHF Landfill Gas Management

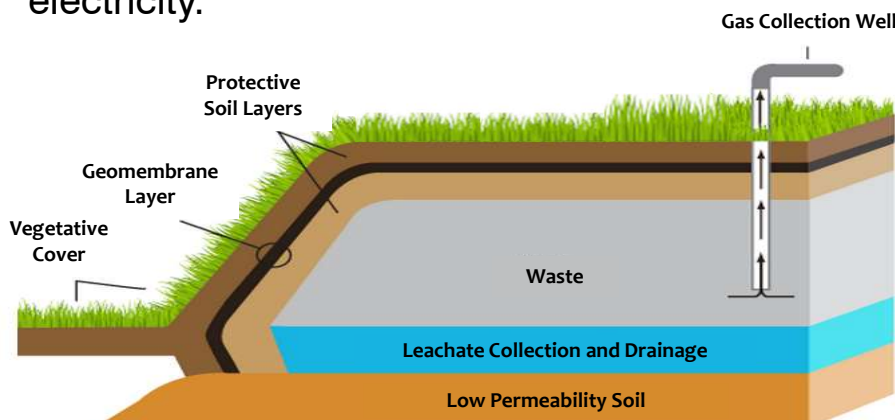
What causes landfill odours?

- Waste decomposes in an anaerobic (no oxygen) environment. Anaerobic decomposition produces landfill gas (LFG) that consists of:
 - Methane - 50-55%
 - Carbon Dioxide – 45-50%
 - Others (H₂S, VOCs, siloxanes) – 1%



How are we managing LFG?

- Daily Waste Placement:
 - Apply 15 cm of soil cover each working day
 - Operate odour masking misting system
- Full Landfill Cells:
 - Apply 30 cm of soil cover
 - Install biogas extraction wells
 - 198 in operation now
 - Place engineered impermeable liner
 - Finish with topsoil and vegetation
- LFG is removed from the landfill by the extraction wells under a constant vacuum, and travels through buried piping to the onsite Landfill Gas to Energy Facility, generating electricity.



EOWHF Landfill Gas Management



The Landfill Gas to Energy Facility began operation in 2012 and consists of **4 GE Jenbacher Engines** which produce **4.2 MW** of electricity, powering approximately **4,000 homes**.

A 3,000 cfm flare burns surplus biogas.



- Stage 1 - 72 wells
- Stage 2 - 72 wells
- Stage 3A - 54 wells in place
- Stage 3B & 4 - 114 pending

Additional LFG management infrastructure to be installed in 2020 includes a second blower skid, a third flare, and design modifications to maximize biogas capture.

Approximately \$6 million being spent annually on LFG management related infrastructure.

Routine landfill surface scans are conducted to detect and address fugitive emissions.



To learn more about our work and progress please contact:

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