REQUEST FOR AG-3 AGRICULTURAL AND RESIDENTIAL CONDITIONAL USE GREEN MEADOWS MUNICIPAL SOLID WASTE DISPOSAL & RECYCLING FACILITY Amended Application for July 9, 2019 Submittal

ATTACHMENT F

Details of Proposed Use

Typical Cross-Section of a Landfill

Protective Cover

1. Vegetation Cover

As portions of the landfill are completed, native grasses are planted and the areas maintained. The vegetation is visually pleasing and prevents erosion of the underlying soils

2. Soil to Promote Vegetation

Helps to support and maintain the growth of vegetation.

3. Protective Cover Soil

Protects the landfill cap system and provides moisture retention to help establish and maintain the cover vegetation.

Final Composite Cap System

Drainage Layer

A layer of plastic mesh, a geonet, drains excess preciptation from the protective cover soil. A geotextile fabric is located on top of the drainage layer to help prevent clogging of the drainage layer.

5. Geomembrane Cap

A plastic layer forms a cap that prevents excess precipitation from entering the landfill and forming leachate. This layer also helps to prevent the escape of landfill gas and also reduces odors.

6. Compacted Clay Liner

Is placed over the waste when the landfill reaches the permitted height. This layer prevents excess precipitation from entering the landfill and forming leachate and helps to prevent the escape of landfill gas and also reduces odors.

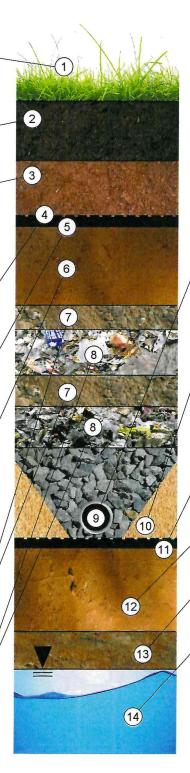
Working Landfill

7. Operational Cover

At the end of each working period, waste is covered with six to twelve inches of soil or other approved material. Daily cover reduces odors, keeps litter from scattering and helps control disease vectors.

8. Waste

Waste arrives and is compacted in layers within a small area (the working face) to reduce the volume consumed. Compaction helps to reduce odors, decreases litter, and helps control disease vectors.



Leachate Collection System

Leachate is a liquid that has filtered through the landfill from precipitation and moisture of incoming waste. The leachate collection system collects the leachate and removes it from the landfill for treatment or disposal. The leachate collection system consists of the following components:

9. Leachate Collection

System

Perforated pipes, surrounded by a bed of gravel, collect and transport leachate to specially designed low points where it leaves the site by gravity or pumps. The leachate is transported to storage tanks for treatment or another proper method of disposal.

10. Leachate Collection Layer

A layer of soil and a thick plastic mesh called a geonet collects leachate and allows it to drain by gravity to the leachate collection pipe.

Composite Liner System

11. Geomembrane Liner

A thick plastic layer, high-density polyethylene (HDPE), prevents leachate from leaving the landfill. HDPE is tough, impermeable and extremely resistant to attack by the compounds that may be in the leachate.

12. Compacted Clay

Is located directly below the HDPE liner and forms an additional barrier to prevent leachate from leaving the landfill.

13. Prepared Subgrade

The native soils beneath the landfill are prepared to form a proper foundation for the landfill.

14. Seasonal High

Groundwater Table

A minimum of five feet of dry soil from seasonal- high groundwater table to bottom of the compacted clay liner. Underdrains may be utilized as necessary to prevent the seasonal high groundwater from exceeding this level.



CONCEPTUAL PLAN

GREEN MEADOWS SOLID WASTE DISPOSAL & RECYCLING FACILITY
Screven County, Georgia

