

Tolson And Associates, LLC

Refuse Disposal Application for Tolson Rubble Landfill

Permit No. 2003-WRF-0580

Phase I
Public Informational Meeting
September 10th, 2019
Crofton, Maryland

Geosyntec 
consultants



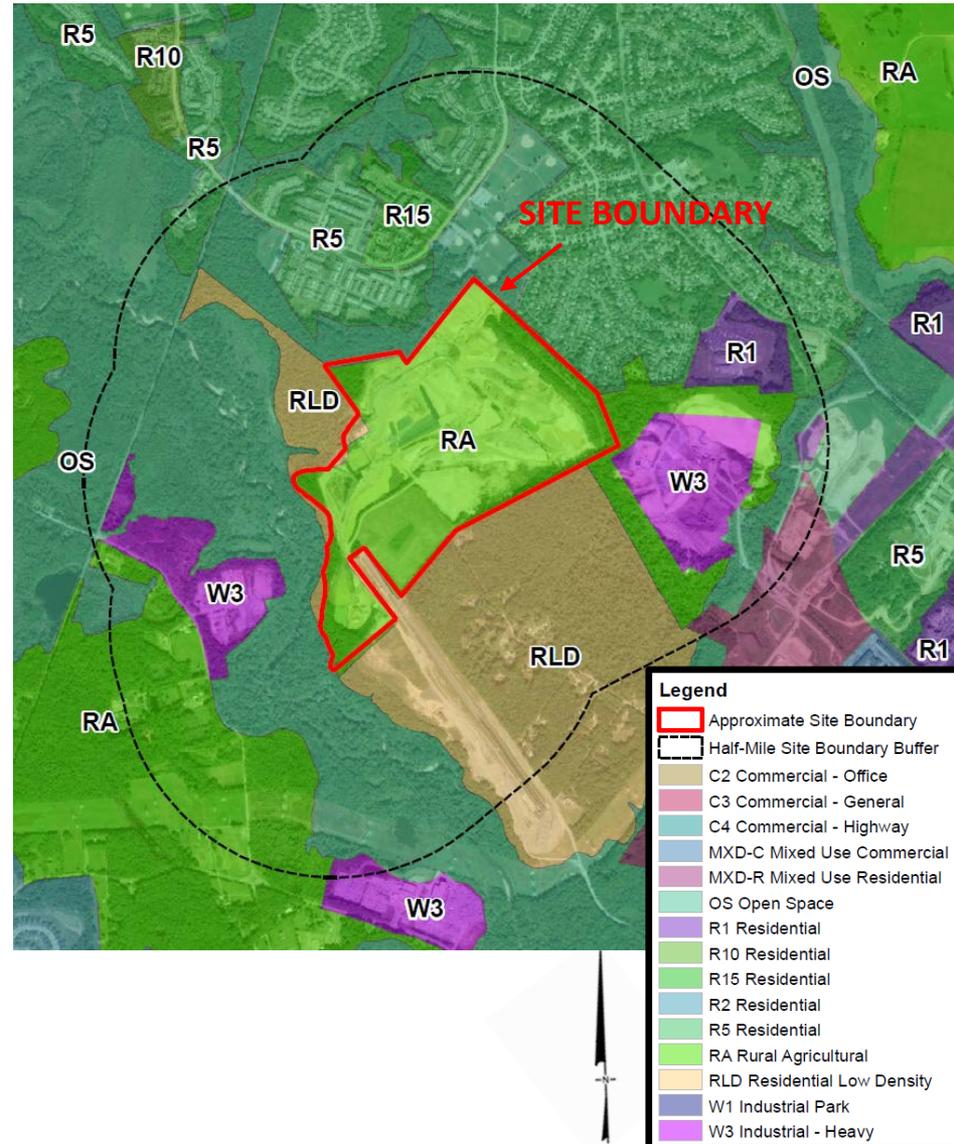
Carrie Pendleton

- **Permit Application to Maryland Department of the Environment (MDE)**
 - Rubble disposal in Anne Arundel County
 - Purpose and Technical Basis
- **Landfill Control Systems and Environmental Responsibility**
 - Groundwater Protection
 - Surface Water Protection
 - Gas Control
- **Design Approach and Calculations Required**
- **Summary**

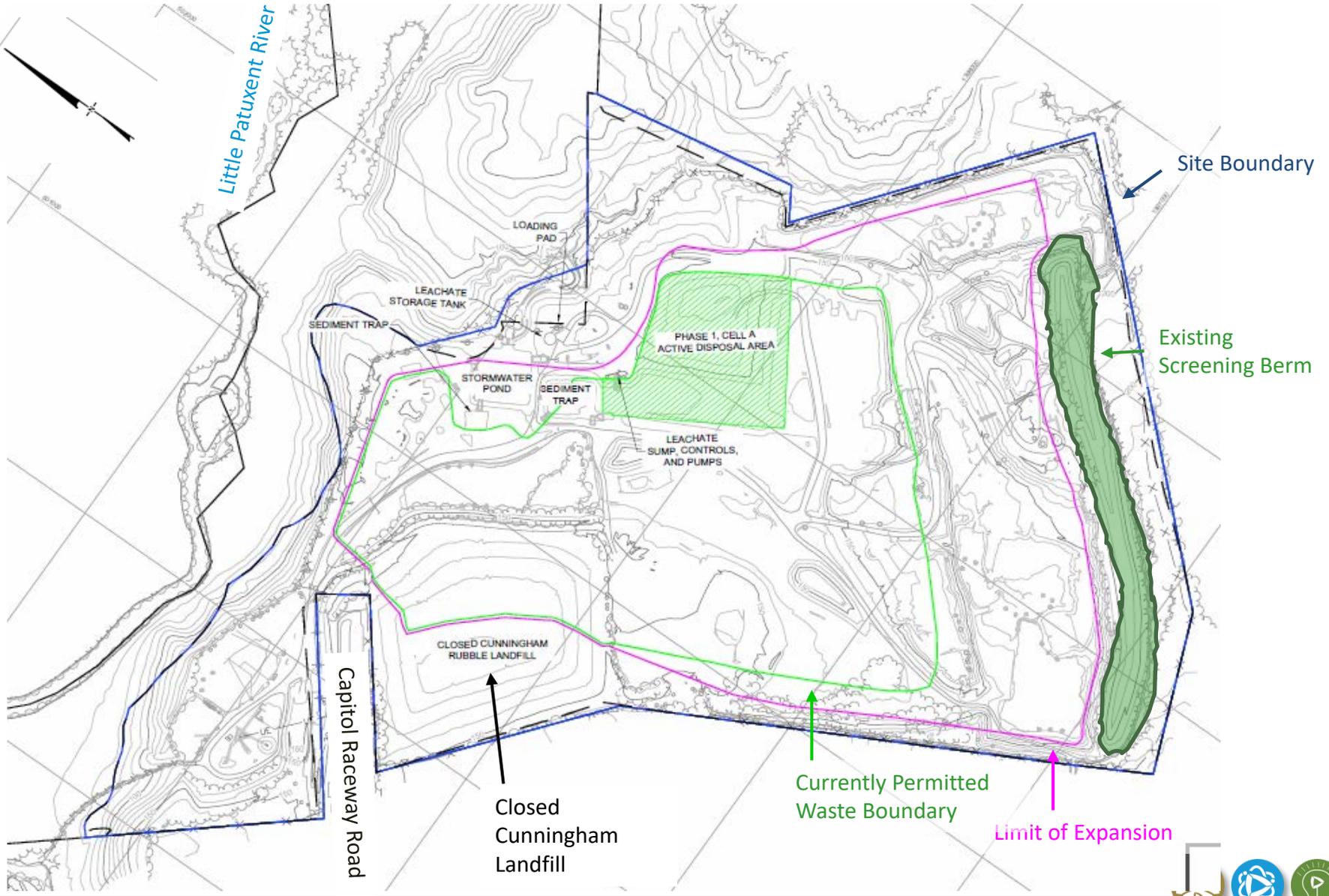
- There is a growing need for disposal of construction and demolition debris (CDD or rubble) in and surrounding Anne Arundel County.
- Tolson is committed to continuing cost-effective and environmentally responsible rubble disposal services for residents and businesses
- To achieve this, Tolson intends to expand the existing landfill within the mining operation site



Site Layout

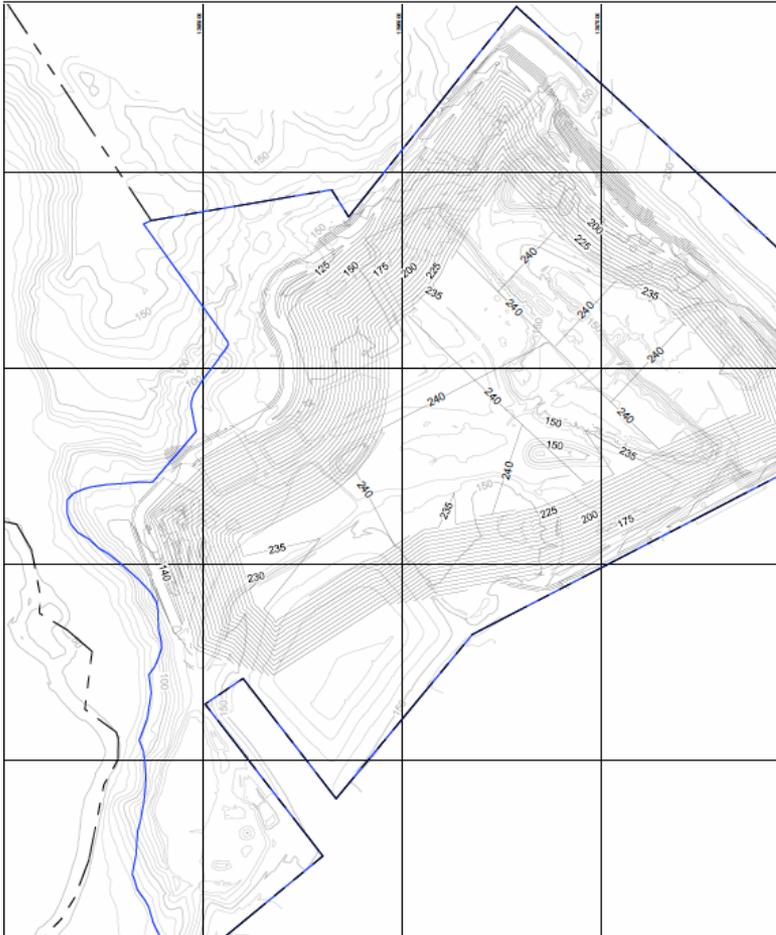


Site Layout



- **Preferable to developing a “greenfield” site in another location**
- **Site is already in use for sand and gravel operations and waste disposal**
 - Waste disposal operation began in 2016
 - Location and routes are known to residents and haulers
 - Modern engineered landfill is considered a beneficial re-use of the open mining area
- **Infrastructure is already in place**
 - Access roads and security controls
 - Disposal operation (scales, litter fences, screening berm, etc.)
- **Extended environmental monitoring network in place**
 - Monitoring at the TRL has been underway since early 1990s and expanded for current landfill and again for proposed expansion
- **Screening**
 - A screening berm already exists along the eastern boundary
 - Site setback is one mile from Route 3

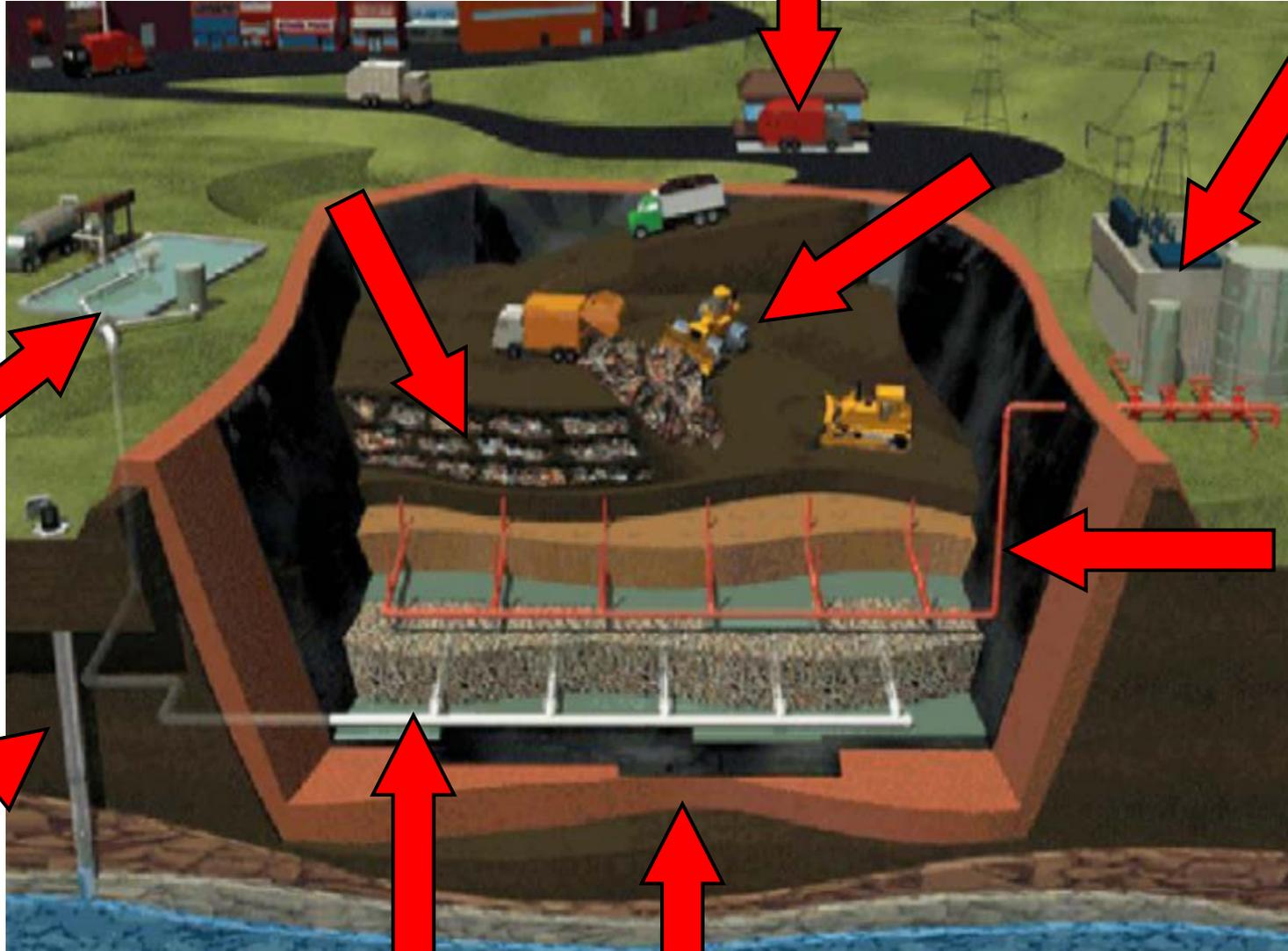
What will TRL look like?



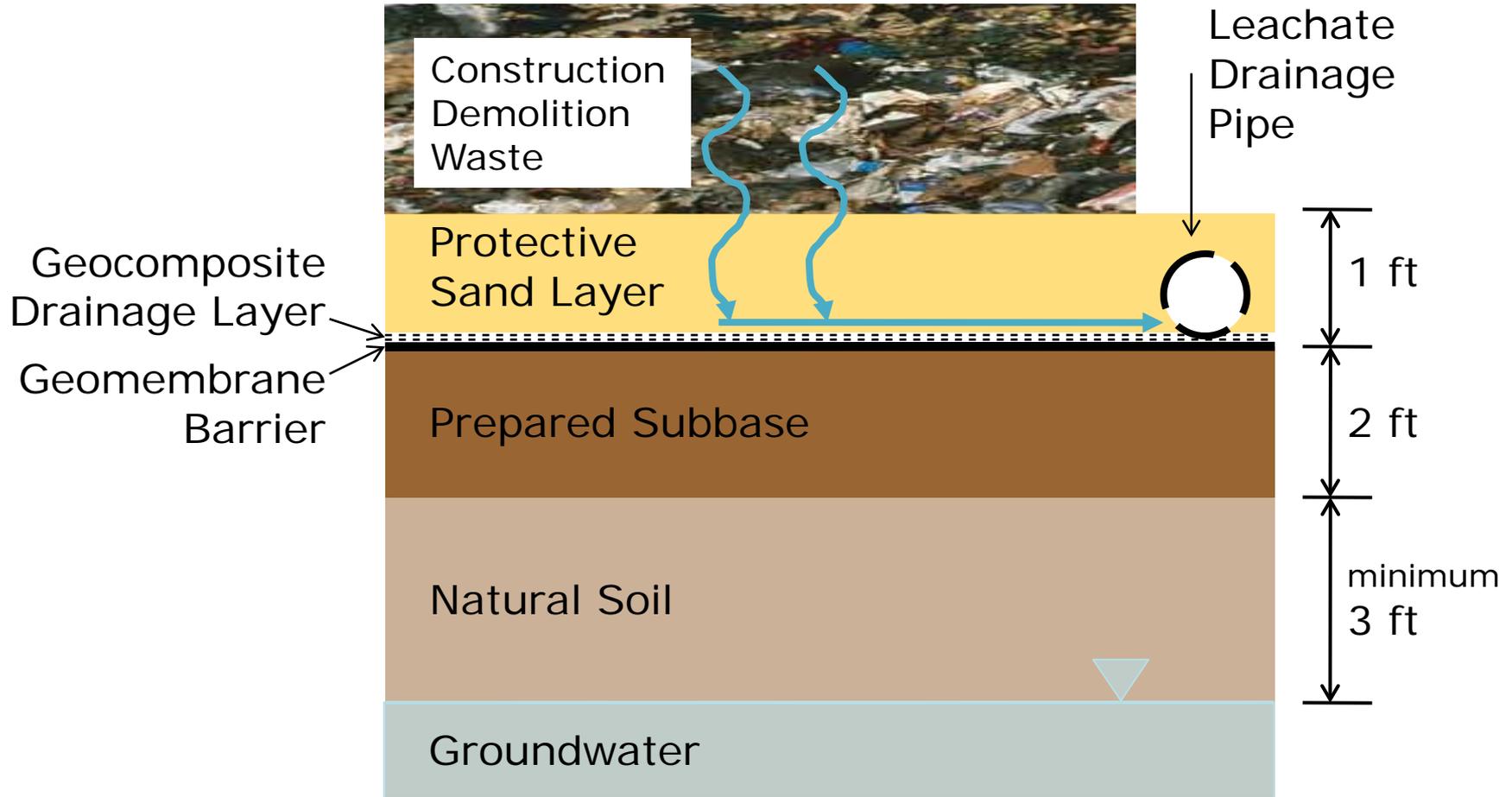
Total area = 72.38 acres → 118.5 acres
Vertical height increase from 230 ft msl → 244 ft msl
Base grades lowered from 122 ft msl → 100 ft msl
Total disposal capacity = 6.8 MCY → 16 MCY

- Leachate is controlled by the landfill liner and leachate collection system
- Gas is controlled by the liner and gas management system
- Cover system serves to minimize leachate generation and gas emissions

Overview of Landfill Operations and Control Systems



Landfill Liner System



Liner System Construction (1)



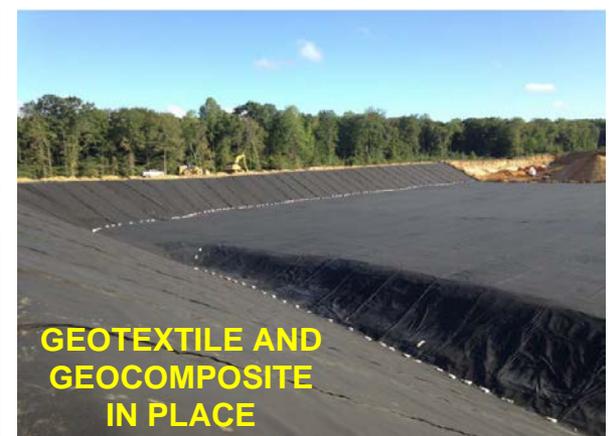
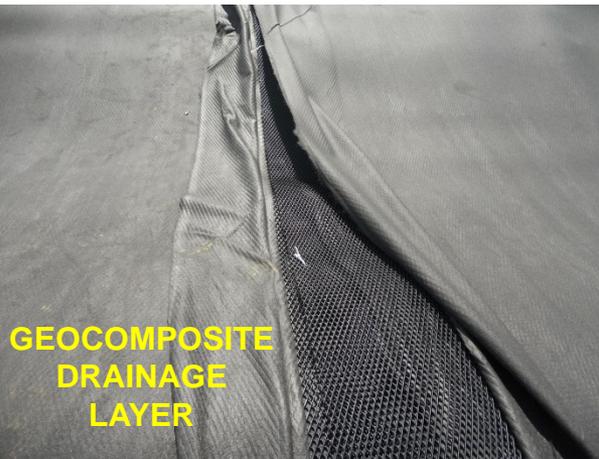
ROLLING SUBBASE



GEOMEMBRANE DEPLOYMENT



Liner System Construction (3)



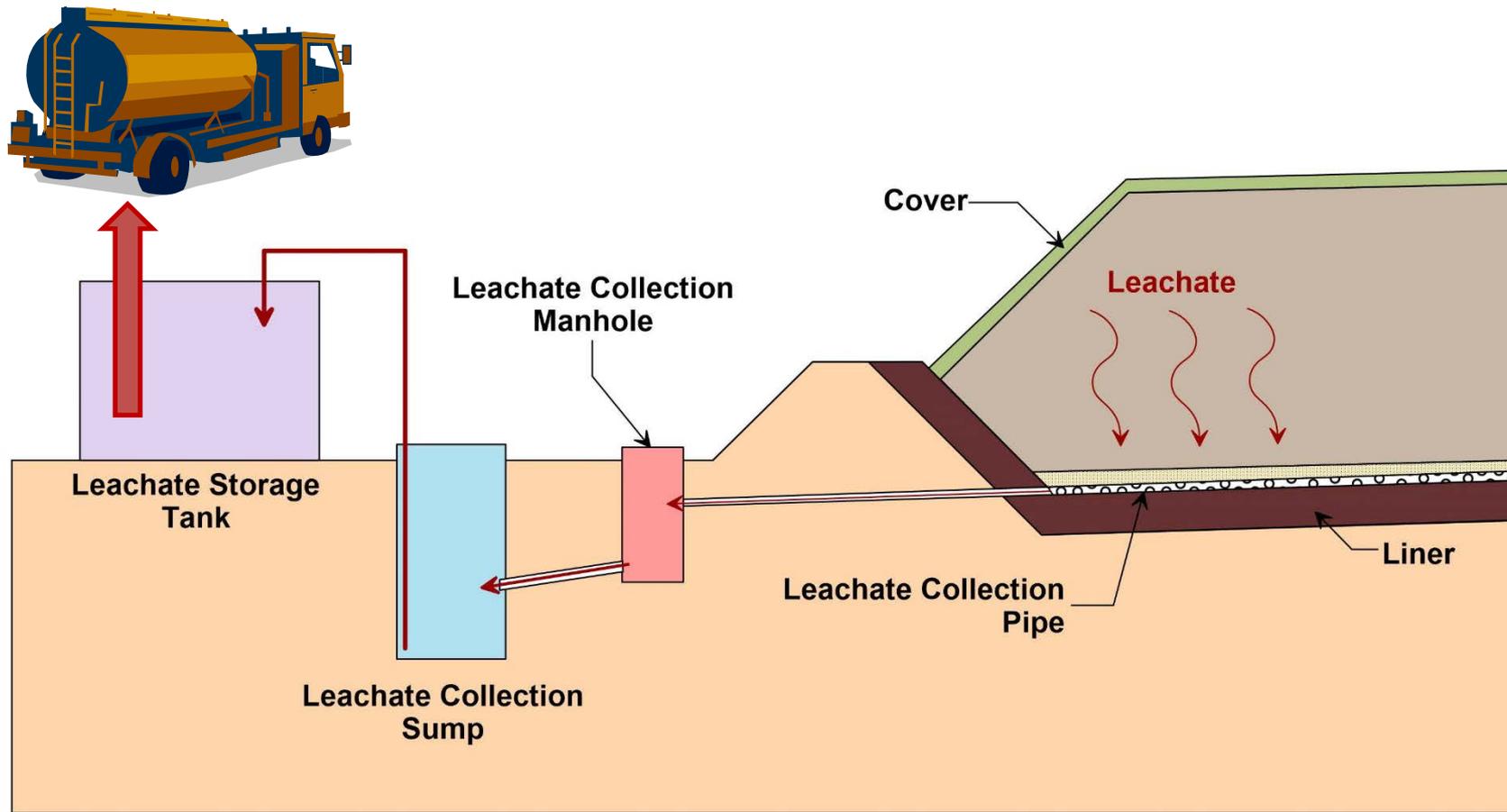
GEOCOMPOSITE DRAINAGE LAYER AND GEOTEXTILE DEPLOYMENT

Liner System Construction (4)





Leachate Management System

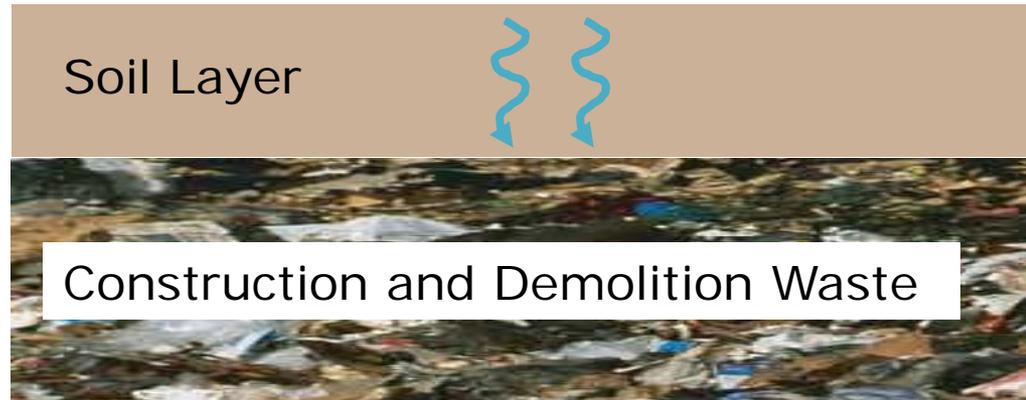


Periodic Cover



Periodic Cover

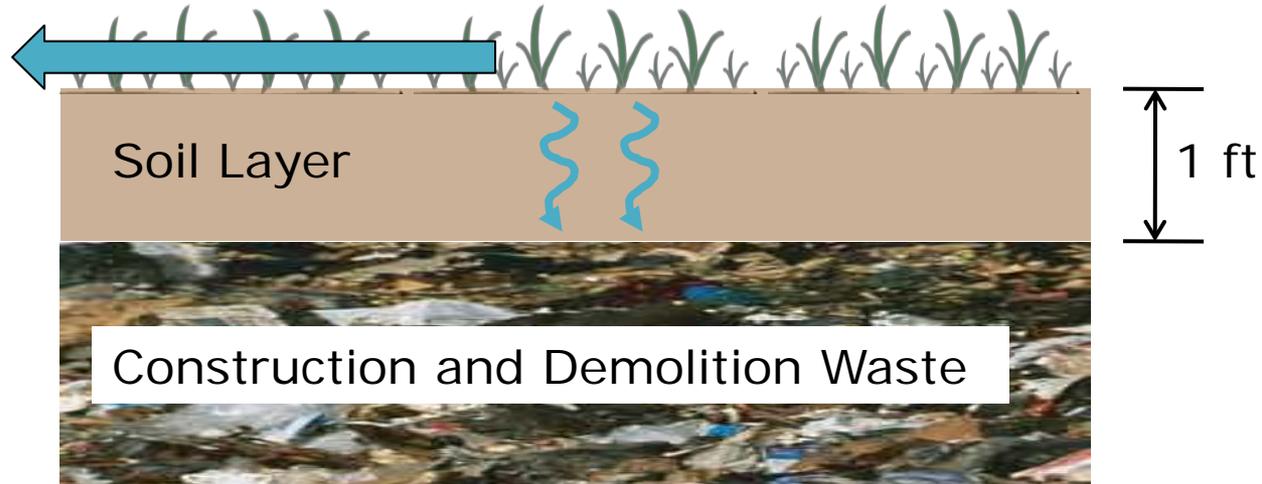
Clean runoff
(stormwater)



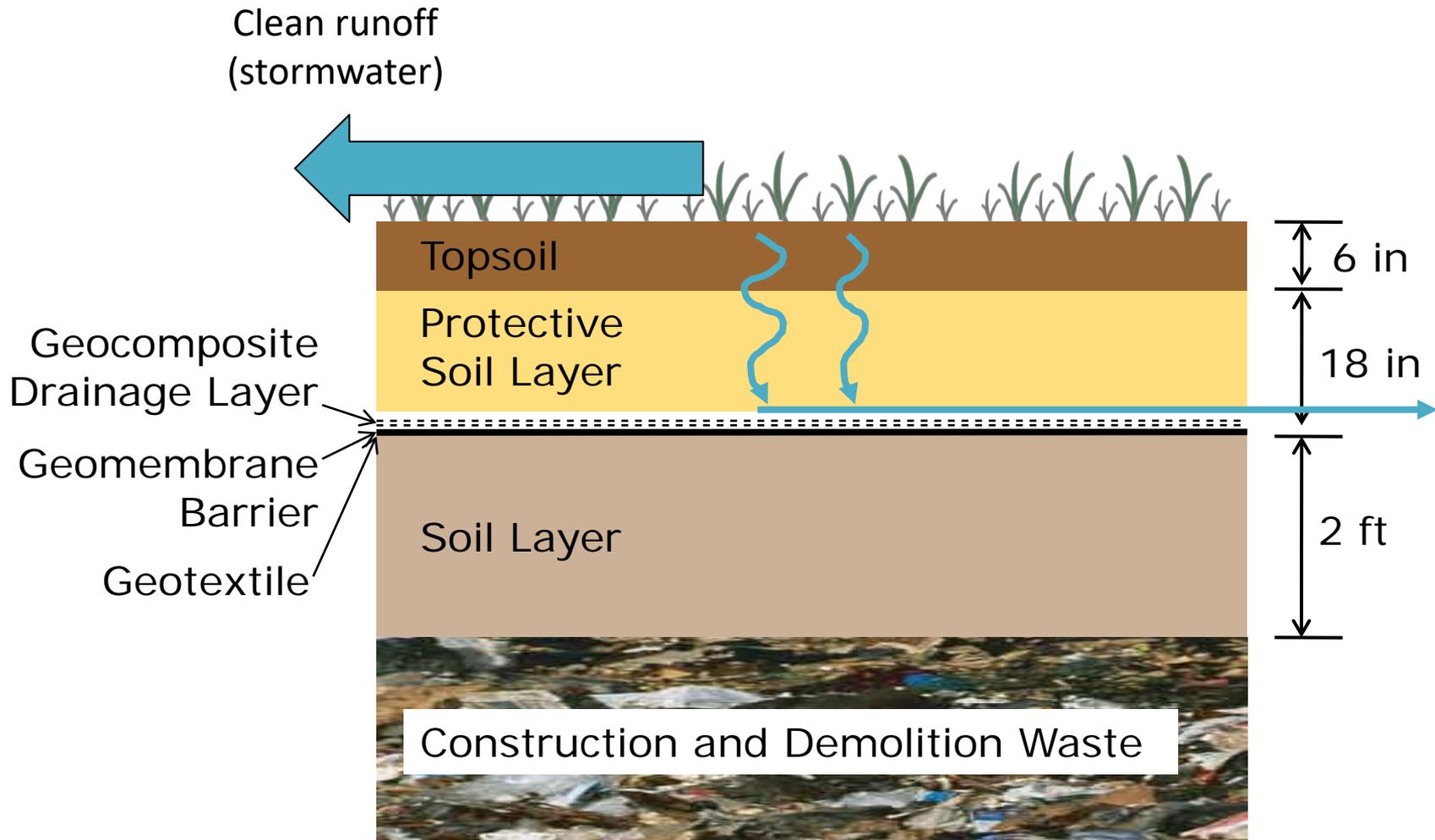
0.5 ft

Intermediate Cover

Clean runoff
(stormwater)



Landfill Final Cover System



Benefits

- Helps prevent odors
- Protects air quality



- **Liner System**

- ✓ Is the liner strong enough?
- ✓ Will the ground sink?
- ✓ Will the landfill be stable?

- **Leachate Management**

- ✓ Are the pipes and tanks big enough?
- ✓ Are the collection pipes strong enough?

- **Stormwater Management**

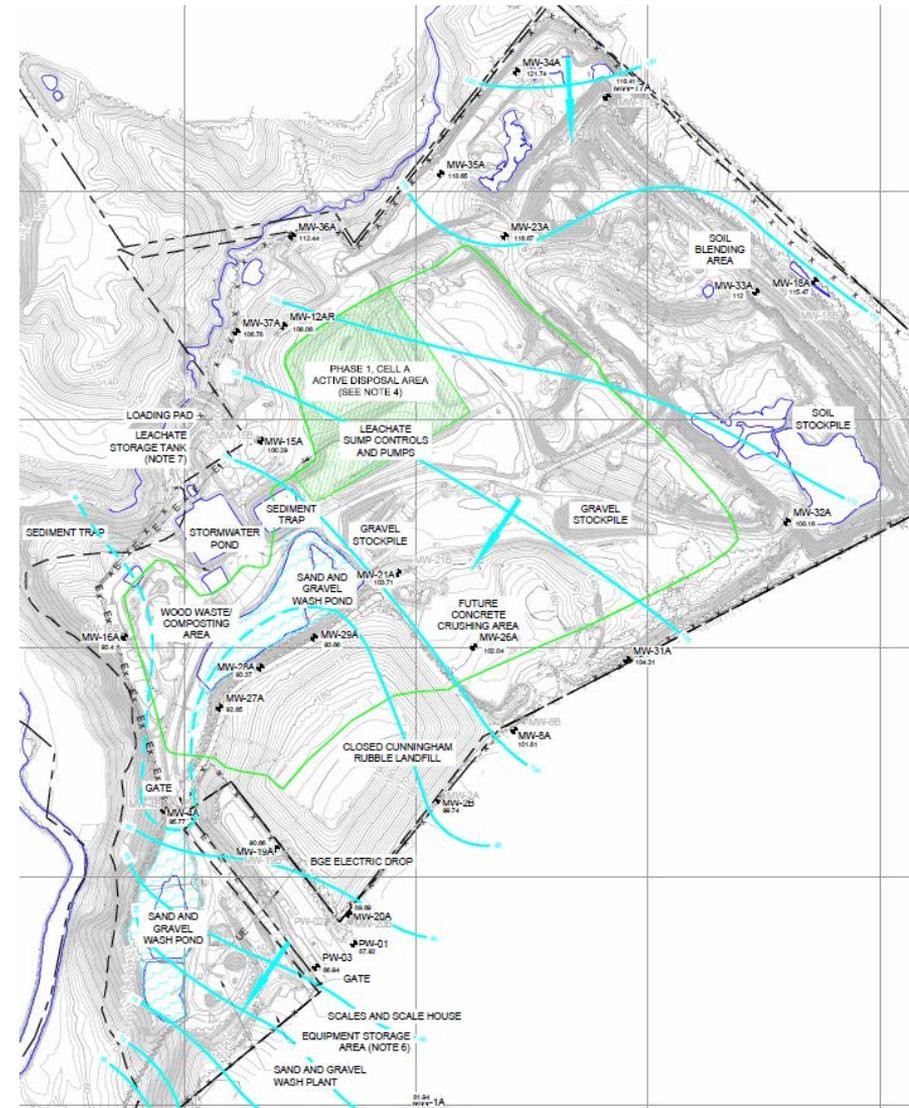
- ✓ Are the ponds big enough to hold all the water?
- ✓ Will the landfill cover be eroded or damaged?

- **Gas Management**

- ✓ Do we have enough gas collection wells?
- ✓ Are the pipes and flare big enough?



- Groundwater monitoring well network
 - Background and downgradient
- Gas migration monitoring well network
 - Entire perimeter
- Routine monitoring performed
 - Statistical analysis of data
 - Reports submitted to MDE



- Landfill expansion will provide long-term economical rubble disposal for the Anne Arundel County community
- Environmental quality at the site will be protected
- Permit Application available to view:

*Crofton Community Library
Branch of the Anne Arundel
County Library System
1681 Riedel Road
Crofton, Maryland 21114*

Prepared for:
TOLSON AND ASSOCIATES, LLC
24024 Frederick Road
Clarksburg, Maryland 20871

PHASE I REPORT

**PROPOSED EXPANSION OF TOLSON &
ASSOCIATES RUBBLE LANDFILL
CROFTON, ANNE ARUNDEL COUNTY,
MARYLAND**

Prepared by:

Geosyntec[®]
consultants

Professional Certification: I hereby certify that this document was approved by me, and that I am a duly licensed Professional Engineer under the laws of the State of Maryland,

10211 Wincopin Circle, 4th Floor
Columbia, Maryland 21044

License No. 32252,

Project Number: ME1606
Document Number: MD18235

Expiration Date: 09-08-2019.

C. H. Bandler

May 2019

