



Department of
**Environment &
Conservation**

Blaylock and Brown Class III Landfill (E-PLEX)

Construction / Final Closure / Post-Closure

Meeting Agenda

- Purpose
- Background
- Schedule
- What we've done
 - Minor repairs due to stormwater infiltration
 - Move sort pile and shingle pile to the landfill for disposal / grading
 - Cover disturbed area (soil) and shed water until final cap construction in 2024
 - Complete closure design, construction drawings, and Contractor bids
- What we plan to do next
 - Construct stormwater pond(s) and other stormwater infrastructure
 - Construct final cap
 - Begin 2-year Post-Closure care period (starting upon certification of cap (late 2025/2026))
- Project related questions

Project Team

- **TDEC (at the meeting)**
 - Craig Almanza – Deputy Director, Division of Solid Waste Management
 - Kathryn Schulte – Regional Director, External Affairs
 - Judy Low – Local Central Office - Division of Solid Waste Management Employee
 - Brian Wolf – Solid Waste Program Manager

Project Team

- **State Support (NOT at the meeting)**
 - Lisa Hughey – Director, Division of Solid Waste Management
 - Jim Holt – Memphis Environmental Field Office Manager
 - Denard Mickens – Office of General Counsel
 - Amanda Callihan – Attorney General’s Office
 - Many others...

Project Team (Continued)

- **Engineering / Design / CQA / EPSC / Surveyor:**
 - Civil & Environmental Consultants, Inc. (CEC)
 - State Contractor for last 5 years and was selected in March for next 5 years
 - Over 30 years in the Environmental/Consulting business
 - Nashville, Knoxville, Sevierville Offices, 31 other offices nation-wide
 - Performed design, construction quality assurance, post-closure inspections for hundreds of landfills across the country...and beyond
 - Chris Murray, PE, PP, PLS – Principal in charge of project
 - Michael Yacyshyn, PE – Certifying Engineer

Project Team (Continued)

- Earthwork Contractor:
 - Bid responses were evaluated and successful bidder (Century Civil Construction Group) was selected and notified on 7-9-24.
 - Anticipate moving forward with project soon. Currently working on contract documents
 - Century has extensive LF construction experience.

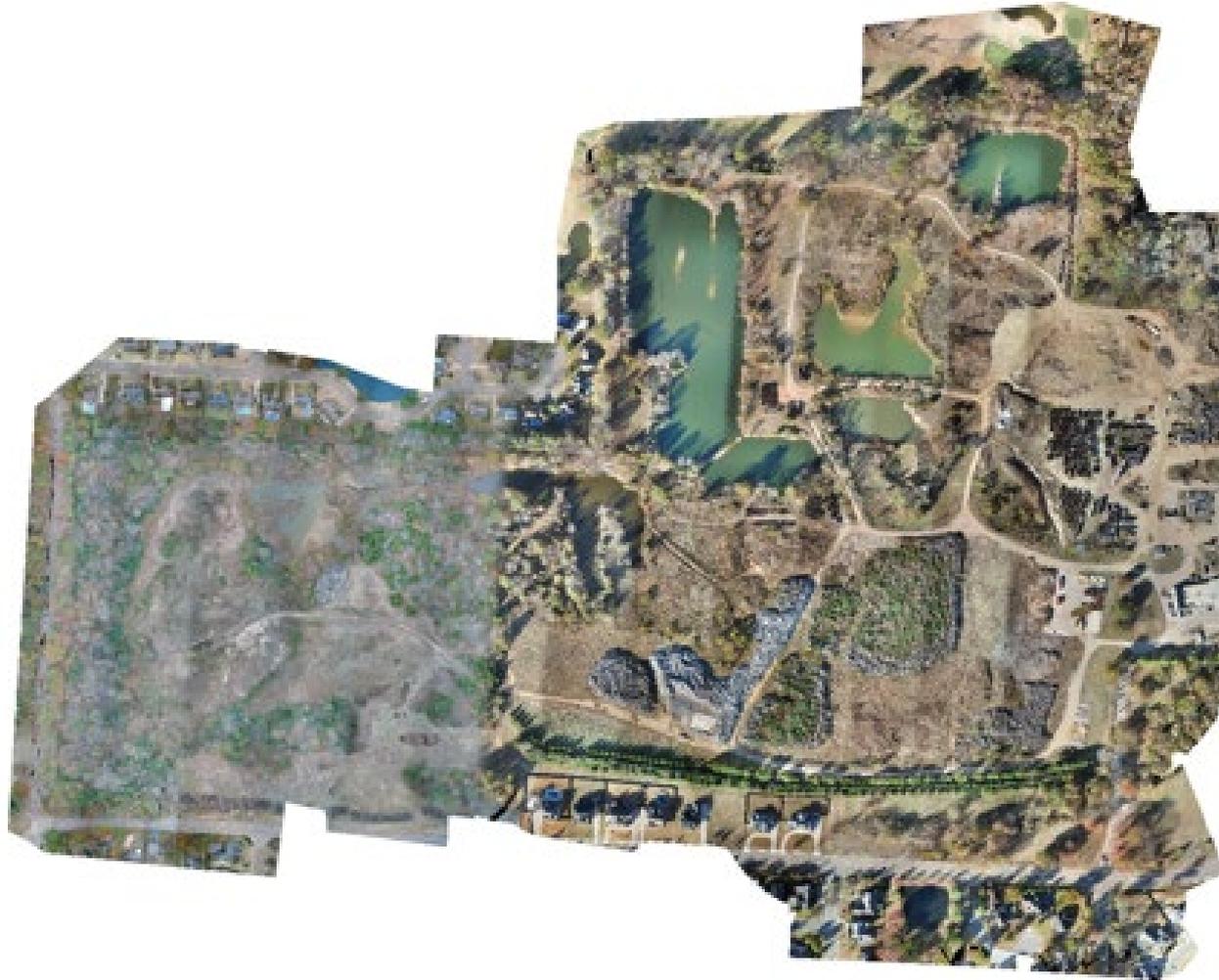
Aerial Photography (Entire Property)



Aerial Photography (Landfill – North)



Aerial Photography (Borrow Area – South)



NORTH

Project Background

- Current Permit Issued August 10, 1999
 - Class III Landfill Permit (allows disposal of landscaping/land clearing waste, and construction and demolition wastes)
- Operated for 22 years
- August 2022 – Unfortunate passing of Norman Brown
- October 2023 – Completed Phase I – incorporation of the sort pile and shingle pile into the landfill and cover
- June 2024 – Request for Proposals for Phase II – Final Closure Construction
- TBD – Initiate Final Closure Construction

2023 Construction Activity Details

- Moved the sort and shingle piles into the landfill
 - 130k cy of material placed on top.
 - Regraded slopes and established vegetation.



Schedule – Work Week

- Typical day of work will begin at 7 AM
- Terminate at 5 PM
- Saturday will be 7 AM – 2 PM
- Sundays will be reserved as make-up days if weather delays cause the project to fall behind schedule significantly

Schedule (Continued)

- Main Project Milestones
 - 2024 Construction – Tentative Start date of mid-August
 - Final Cap Construction
 - Placement of Deed Notice / Restriction on landfill portion of the property.
 - Tentative construction completion date – October 2025
 - 2025 Begin 2-year Post-Closure care period
 - Mowing
 - Groundwater monitoring
 - Cap inspections
 - Any required repairs / maintenance

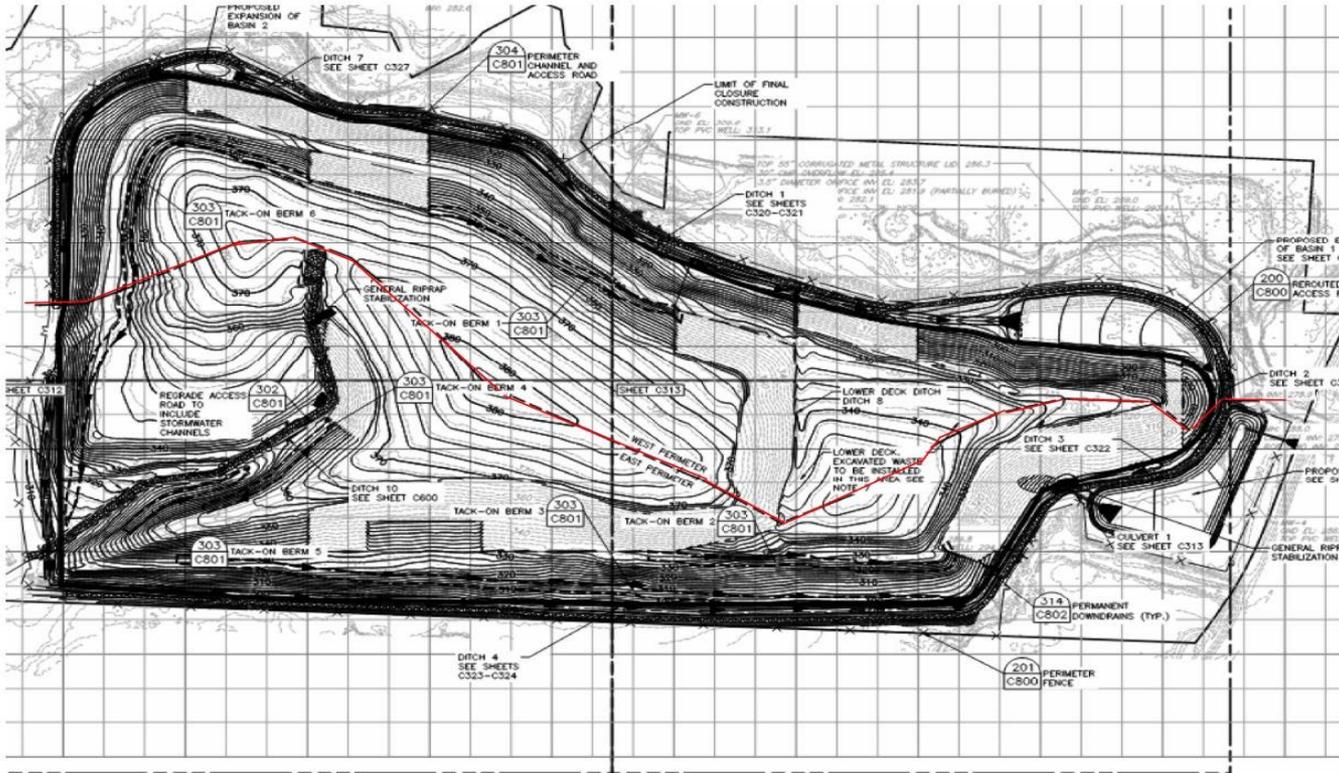
2024 Construction Activity Details

- Construction Priorities
 - Minimize noise/disruption
 - Road traffic – importation of more than 165k cy of soil
 - Maintenance of any mud on roads
 - Construct a regulatory-compliant cap in the shortest timeframe possible
 - No anticipation of exposure of waste
 - Only strip a portion of existing soil and compacting additional
 - Full-time 3rd-Party Oversight of Contractor
 - Local TDEC-DSWM employee check-in (typically daily)

2024 Construction – Stormwater Overview

- The perimeter of the site needed to be regraded to convey collect and convey surface water runoff from the landfill to 3 sediment basins.
 - Two existing basins were resized/modified
 - One new basin was designed to collect flows from the east perimeter
- All stormwater ditches and landfill tack-on berms are designed to contain and convey a 25 year – 24 hour storm event per Regulatory requirements
- All stormwater sediment basins are designed for a 100 year – 24 hour storm event per Regulatory requirements.

2024 Construction – Stormwater Overview

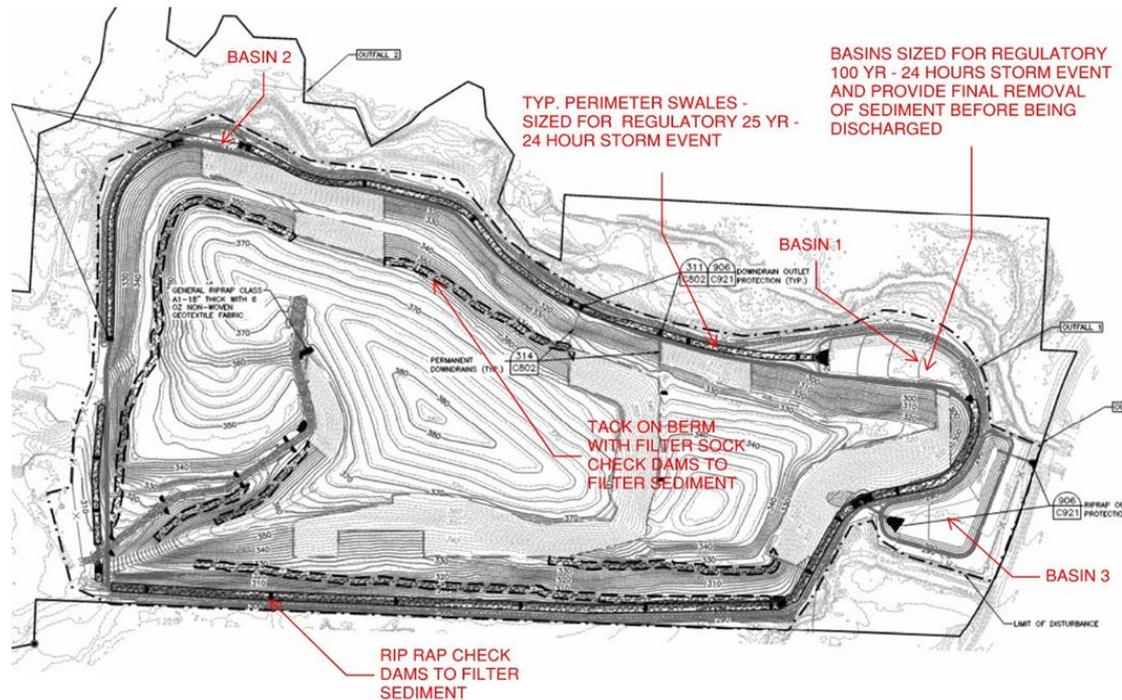


Stormwater drainage design allow for an east and west separation for construction sequencing

2024 Construction – Stormwater Overview

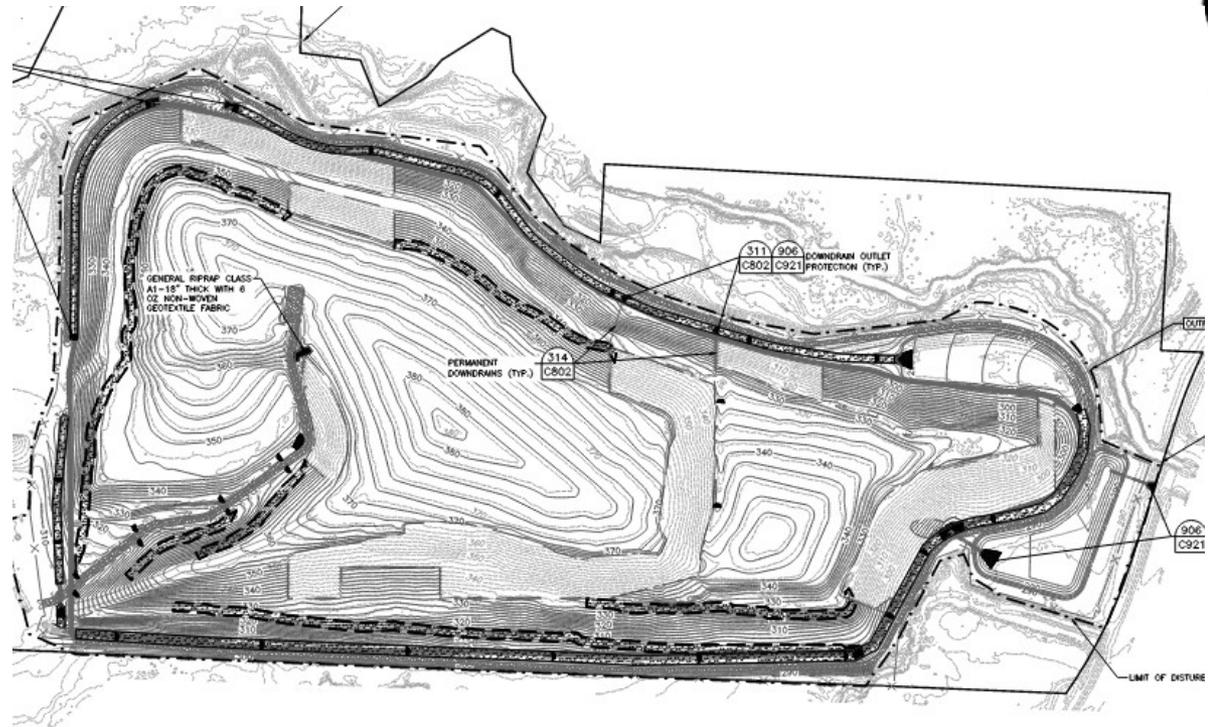


- Ditches and berms will have check dams to capture sediment
- Stormwater is routed through 3 sediment basins as a final step prior to offsite discharge



2024 Construction – Final Vegetation Overview

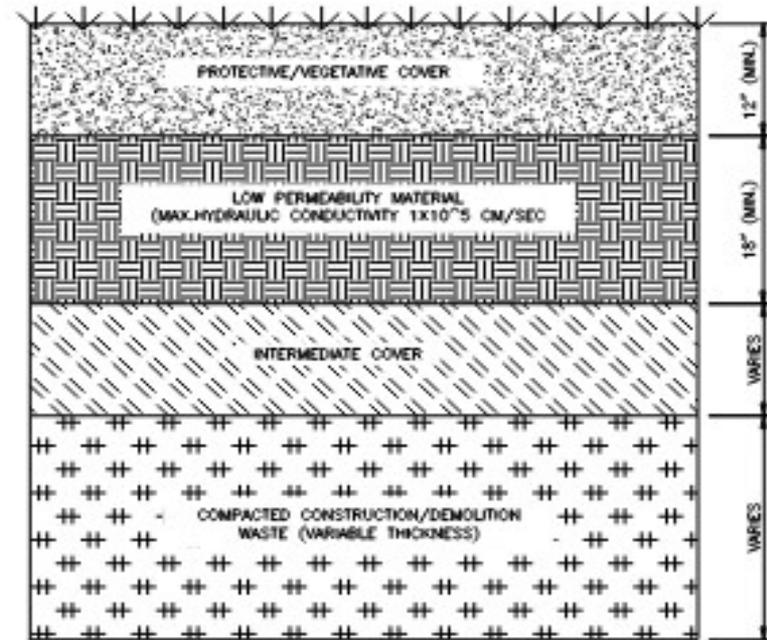
- Ditches and tack on berms will be matted and seeded
- Landfill surface areas will be seeded and mulched
- Gravel landfill access road and perimeter road



NORTH

2024-2025 Regulatory Class III Cap Construction

- 2024-2025 Construction Project - Landfill Cap
 - Regulatory Class III cap (from bottom to top):
 - 12" (min) Interim Cover
 - 18" low permeability soil above existing interim cover
 - 12" vegetative support soil above low-perm soil layer
 - 42-inches of soil total above waste



DETAIL 300
FINAL REGULATORY CAP CROSS SECTION
N.T.S.

Final Cover Construction Oversight

- CEC and teaming partner Fisher Arnold staff, under the TDEC Environmental and Conservation Services Contract, will provide Construction Quality Assurance during final cover construction.
- CQA:
 - Is required by TN and Federal Regulations
 - Is a crucial process in ensuring the integrity and environmental safety of landfills
 - Ensures that the landfill is constructed according to approved design specifications and regulatory requirements
 - Involves observing, documenting, and testing specific physical properties of the low-permeability soil and vegetative soil components of the cover system
 - Providing a Final Report documenting tests and observations and verifying the final product meets the requirements

Final Cover Construction Oversight

- CQA at B&B Class III Landfill includes:
 - Full time observation by CEC and Fisher Arnold
 - Field testing required in the CQA Plan includes:
 - Density and moisture content of the low-permeability barrier soils and engineered fill using Nuclear Density Gauge (1 test per 5,000 cy of material placed)
 - Retrieving intact Shelby tube samples of the low-permeability soil and subjecting the samples to laboratory hydraulic conductivity testing (1 test per 15,000 cy of material placed)

Examples of Devices and Equipment used to Perform CQA

- Nuclear Density Gauge

Moisture Density Gauge

Direct Transmission

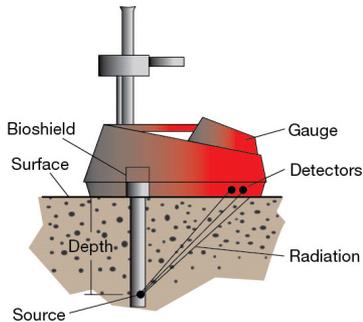


Photo courtesy, APNGA

A moisture density gauge indicates whether a foundation is suitable for constructing a building or roadway.

- Shelby™ tube, and permeability test apparatuses



Post-Construction Activities

- TDEC will continue inspections (minimum quarterly)
 - Any erosion will initiate immediate repairs
 - Ensure security measures are keeping trespassers from entering the property
- Lines of Communication:
 - Plan to continue virtual meetings with Town of Collierville – schedule to be determined
 - Questions/concerns to be routed to Town to be discussed during these meetings
 - Website: <https://www.tn.gov/environment/program-areas/solid-waste/solid-waste-management/former-eplex-landfill.html>
 - Brian Wolf – brian.wolf@tn.gov (615) 946-7772

Post-Closure

- After closure, regulatory standard is 2 years of post-closure for Class III Landfills
 - Groundwater Sampling, Inspections of Cap/Stormwater Infrastructure
- Release from Post-Closure
 - Deed notice that landfilling occurred on property

Questions

