

**2026 Annual Landfill Inspection under
Coal Combustion Residuals Rule
Seminole Generating Station
Putnam County, Florida**

March 16, 2026



Ardaman & Associates, Inc.

CORPORATE HEADQUARTERS

8008 S. Orange Avenue, Orlando, Florida 32809 - Phone: (407) 855-3860 Fax: (407) 859-8121

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Ardaman & Associates, Inc.

Geotechnical, Environmental and
Materials Consultants

March 16, 2026
File Number 25-13-0065

Seminole Electric Cooperative, Inc.
16313 North Dale Mabry Highway
Tampa, FL 33618

Attention: Mr. Justin Gostnell

Subject: 2026 Annual Landfill Inspection under Coal Combustion Residuals Rule, Seminole
Generating Station, Putnam County, Florida

Gentlemen/Ladies:

As authorized by Seminole Electric Cooperative, Inc. (Seminole) under Purchase Order 2507887 dated December 23, 2025, Ardaman & Associates, Inc. (Ardaman) performed an inspection of the active coal combustion residuals (CCR) landfill and associated facilities at the Seminole Generating Station on January 22, 2026. The inspection was conducted to satisfy the requirements of 40 CFR §257.84 of the CCR Rule promulgated by the United States Environmental Protection Agency (EPA) on April 17, 2015, and to identify any conditions that require immediate corrective action or long-term attention. The CCR Rule requirements are also incorporated by reference in the facility's solid waste operation permit.

The designated CCR waste disposal area at the Seminole Generating Station lies north of the power generating facility and comprises the closed original landfill and its vertical expansion, and the active Increment 1 landfill (Increment 1). Figure 1 depicts the disposal area layout overlaid on Google Earth aerial imagery acquired on December 11, 2024. Increment 1 occupies approximately 27 acres southeast of the closed original landfill and adjoins approximately 6 acres of the eastern portion of the southern slope of the original landfill. Since October 19, 2015 (the effective date of the CCR Rule), Increment 1 has been the only landfill unit receiving CCR waste.

The January 22, 2026 inspection was the eleventh annual inspection of Increment 1 under the CCR Rule since waste placement commenced on April 5, 2013. The inspection focused on the lined Increment 1, which remains the only active CCR landfill unit subject to the CCR Rule provisions. Although the closed original landfill and its lined vertical expansion ceased receiving waste before the CCR Rule became effective, these units and other adjacent facilities were observed where they could potentially affect the operation or safety of Increment 1.

To support the 2026 inspection, Ardaman reviewed the CCR Rule requirements, relevant historical records in our project files, and landfill operation data provided by Seminole.

Inspection Requirements under CCR Rule

As stated in 40 CFR §257.84(b)(1), the goal of the annual inspections is “to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards.” The CCR Rule further stated that the annual inspections must be performed by a qualified professional engineer and must, at a minimum, include the following efforts:

- (i) *A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., the results of inspections by a qualified person, and results of previous annual inspections); and*
- (ii) *A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit.*

Per 40 CFR §257.84(b)(2), the inspection report is required to address the following items:

- (i) *Any changes in geometry of the structure since the previous annual inspection;*
- (ii) *The approximate volume of CCR contained in the unit at the time of the inspection;*
- (iii) *Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit; and*
- (iv) *Any other change(s) which may have affected the stability or operation of the CCR unit since the previous annual inspection.*

Annual inspections of a CCR unit are required to be performed by a qualified professional engineer, who is defined as “an individual who is licensed by a state as a Professional Engineer to practice one or more disciplines of engineering and who is qualified by education, technical knowledge and experience to make the specific technical certifications required under this subpart. Professional engineers making these certifications must be currently licensed in the state where the CCR unit(s) is located.”

Sources of Information

Ardaman reviewed the following records and documents in support of the January 22, 2026 landfill inspection:

- Ten previous annual CCR landfill inspection reports prepared by Ardaman from 2016 through 2025.
- Conditions of Certification PA78-10A3 for the Seminole Generating Station dated July 27, 2018.

- Solid Waste Operation Permit 0326595-003-CO-01 issued by the Florida Department of Environmental Protection (FDEP).
- Design and construction documents for Increment 1.
- “First Update of Run-on and Run-off Control System Plan for Landfill Increment 1 Buildout Landfill,” prepared by Ardaman, dated August 31, 2021.
- “Landfill Operation Plan, Seminole Generating Station, Putnam County, Florida,” prepared by Seminole, updated August 2022.
- “CCR Fugitive Dust Control Plan for the Seminole Generating Station,” prepared by Seminole, with an effective date of July 18, 2022.
- Previous studies on historical waste generation rates and landfill airspace consumption.
- Waste quantity and leachate flow meter records provided by Seminole.
- On-site rain gauge records for 2025 provided by Seminole.
- Topographic survey and aerial photograph based on imagery obtained by Pickett and Associates (Pickett) on December 9, 2025.
- Weekly landfill inspection reports for 2025 provided by Seminole.
- Annual CCR Fugitive Dust Control Report, prepared by Seminole, dated December 4, 2025.

Following the inspection, Ardaman interviewed Seminole’s Material Handling Supervisor, who oversees landfill operations, concerning any landfill issues that occurred during the past year.

Waste Stream

Waste placement in Increment 1 began on April 5, 2013. Disposed materials in Increment 1 consist of fly ash, purge water treatment (PWT) sludge, and miscellaneous waste materials such as equalization basin (EB) sludge, fly ash from non-silo sources, unsold bottom ash, coal particles, limestone, sandblasting grit, plant sludges, percolation pond sludge, sludge from the effluent processing facility (EPF) run-off collection ditch and sump.

Waste Quantities

For 2025, Seminole’s records indicate approximately 53,000 dry tons of waste were landfilled in Increment 1. This landfilled waste stream consists of the following materials:

- Approximately 39,500 dry tons of fly ash.
- Approximately 1,700 dry tons of PWT sludge (700 dry tons for fly ash conditioning plus 1,000 dry tons from the filter press).

- Approximately 12,000 dry tons of EB sludge and miscellaneous waste.

Based on historical records and the data for 2025, the average annual fly ash generation rate is approximately 205,000 dry tons. The annual average waste stream includes approximately 4,400 dry tons of PWT sludge and 8,700 dry tons of miscellaneous waste, for an average total waste generation rate of approximately 218,000 dry tons per year.

From April 5, 2013 (when waste placement in Increment 1 began) through December 31, 2025, approximately 1,630,000 dry tons of waste were landfilled in Increment 1.

Topographic Survey

The most recent topographic survey for Increment 1 was completed by Pickett using aerial data acquired on December 9, 2025. The survey topography is shown in Figure 2, and an aerial photograph from that flight is displayed in Figure 3. Figure 4 depicts the elevation differences between the December 9, 2025 landfill surface and the top of the drainage sand layer in the bottom liner system (i.e., waste heights). The volume between those two surfaces represents the consumed airspace within Increment 1.

In comparison to the December 2024 topographic survey, approximately 57,300 cubic yards of airspace in Increment 1 were consumed in 2025. For comparison, airspace consumption in prior years was approximately 57,100 cubic yards in 2023 and 20,200 cubic yards in 2024.

A comparison between the December 9, 2025 survey surface and the top elevations of the drainage sand layer in the bottom liner system indicates that approximately 1,346,000 cubic yards of waste had been placed in Increment 1 as of December 9, 2025. The total available airspace for waste storage in Increment 1 is approximately 2,200,000 cubic yards, leaving approximately 854,000 cubic yards of remaining airspace. At the 2025 airspace consumption rate of approximately 57,300 cubic yards per year, the remaining airspace equates to an estimated remaining capacity of approximately 15 years.

Waste Density

With approximately 1,630,000 dry tons of waste landfilled in Increment 1 and a consumed airspace of 1,346,000 cubic yards, the overall average in-place dry density of the waste stream is estimated at 1.2 tons per cubic yard. Historical records show an average moisture content of 25 percent for the waste stream; therefore, the overall average in-place wet density is estimated at 1.5 tons per cubic yard. These computed density estimates are consistent with values previously measured by Ardaman from waste samples recovered at the landfill.

Run-On and Run-Off Control

As part of the 2026 landfill inspection, Ardaman reviewed the latest update of the run-on and run-off control system plan for Increment 1, prepared by Ardaman and dated August 31, 2021. As described in the plan, most stormwater run-on from upslope areas onto any portion of Increment 1 will be intercepted and diverted by reverse benches outfitted with drains and Fabriform-lined flumes and ditches. Under the run-off control system plan, any rainwater, leachate, or other liquids draining from Increment 1 will be contained within the lined waste disposal area and will not

discharge to the stormwater management system or nearby natural drainageways under the 25-year, 24-hour design storm event.

Leachate Quantity

Separate flow meters for the leachate collection and leak detection systems are monitored by Seminole personnel. Totalizer and flow readings are typically recorded four times per day, from which daily average flows are calculated.

In 2025, the leachate collection system recorded an average flow of approximately 25 gallons per minute (gpm), which corresponds to approximately 18 inches per year over the 27-acre Increment 1 leachate collection footprint. The peak daily average flow was 102 gpm (≈ 0.2 inches per day) occurred on August 25, 2025, following 5 inches of rain over a two-day period. By comparison, the system recorded an average flow of approximately 20 gpm in 2024, with a peak daily average flow of 358 gpm immediately after Hurricane Milton.

These measured leachate quantities are consistent with our experience at similar Florida landfills and indicate that the bottom liner and leachate collection system in Increment 1 is performing as expected.

Seminole reported that auxiliary pumps staged on the west side of Increment 1 were not required in 2025 to remove surface leachate run-off. This suggests that run-off accumulating in the low area of Increment 1 infiltrated into the leachate collection system and was subsequently discharged to Pond 8.

Fugitive Dust Control

During our site visit, Increment 1 was not in operation and no CCR management areas exhibited visible dusting. Roads serving Increment 1 were also clean and well maintained. The waste in Increment 1 was either compacted or covered to minimize dust emissions. As part of the 2026 landfill inspection, Ardaman also reviewed Seminole's fugitive dust control plan and reports.

On October 28, 2025, Seminole staff conducted a site visit to the Seminole Generating Station to inspect the roads used to transport CCR and the CCR stockpiles for evidence of dusting. On December 3, 2025, Seminole completed the annual evaluation of CCR control measure effectiveness required by 40 CFR §257.80(c) and Section 3.2 of the CCR Fugitive Dust Control Plan. The evaluation identified no significant concerns or deficiencies with the methods in the plan or their effectiveness in controlling CCR fugitive dust. No citizen complaints related to CCR fugitive dust were received during the review period. The findings were documented in a report dated December 6, 2025, which concluded that no revisions to the existing CCR fugitive dust control plan were necessary. Ardaman concurred no changes to the plan are necessary at this time.

Weekly Landfill Inspection

In 2025, a Seminole Generating Station employee conducted weekly inspections of Increment 1, including the leachate sump and flow meters, access roads, stormwater structures and ditches, and Stormwater Pond B. No major issues were noted in the weekly inspections for 2025.

Annual Landfill Inspection

The eleventh annual inspection of Increment 1 was conducted by Messrs. Francis K. Cheung, P.E., and Jeyisanker Mathiyaparanam, P.E., of Ardaman on January 22, 2026. The weather during the inspection was partly sunny with an air temperature of approximately 60 °F.

The inspection began at the toe of the access ramp near the northwest corner of Increment 1 and continued up the ramp onto the top area of Increment 1, where the inspection was performed on foot. After completing the Increment 1 walkover, we exited via the same access ramp and drove the perimeter road clockwise to observe the slope areas of the original landfill, Ponds 7 and 8, Stormwater Pond B, the leachate pump station, the east, south, and west sides of the Increment 1 containment dike, and Ponds 1, 2, 3, and 9. We also drove to the top of the closed vertical expansion to observe the entire Increment 1 area. No equipment was operating in Increment 1 at the time of the inspection.

Findings and Recommendations

Our visual inspections of Increment 1 on January 22, 2026 did not reveal any signs of actual or potential structural weakness, nor any conditions that were disrupting or likely to disrupt the operation or safety of Increment 1. Ardaman also observed no adjacent facilities that could potentially affect the operation or safety of Increment 1. During our interview, Seminole's Materials Handling Supervisor reported that the existing landfill operating equipment is adequate and performed satisfactorily, and that there were no significant landfill operation issues in 2025. Representative photographs taken during our inspection are included in Appendix 1.

Seminole should continue to observe or implement the following routine landfill maintenance measures:

- Cover the pozzocrete dike along the south and east sides of Increment 1 with at least 18 inches of soil and seed or sod it as soon as conditions permit. Until this is completed, direct contact run-off from the uncovered slope to the interior of Increment 1.
- Do not place waste against the inside slope of the Increment 1 containment dike above the liner anchor trench elevation (2 feet below the containment dike crest).
- Overseed or sod areas of sparse grass on the outside slopes of the containment dike to maintain erosion protection.
- Continue to monitor and remove vegetation in the drainage sand layer that could damage the liner or clog the leachate collection system.
- Remove excessive vegetation growth to preserve flow capacity of ditches, culverts, and Fabriform flumes.
- Maintain sufficient storage within Increment 1 to accommodate run-off from exposed waste areas and continue to monitor any accumulation of standing leachate.
- Keep auxiliary pumps staged and available to remove standing leachate from the low area of Increment 1.

- Continue weekly landfill inspections as required by the CCR Rule.

Recordkeeping and Future Inspection

Seminole should be aware of the following recordkeeping requirements:

- The annual CCR landfill inspection report must be placed in the written operating record at the facility as stipulated in by 40 CFR § 257.105(g)(9).
- The State Director¹ must be notified of the availability of the report as stipulated in 40 CFR § 257.106(g)(7).
- The report must be posted on the Seminole website as stipulated in 40 CFR § 257.107(g)(7).

Pursuant to 40 CFR §257.84(b)(4), the schedule for the next annual CCR landfill inspection is as follows:

“... In all cases, the deadline for completing subsequent inspection reports is based on the date of completing the previous inspection report. For purposes of this section, the owner or operator has completed an inspection when the inspection report has been placed in the facility’s operating record as required by § 257.105(g)(9).”

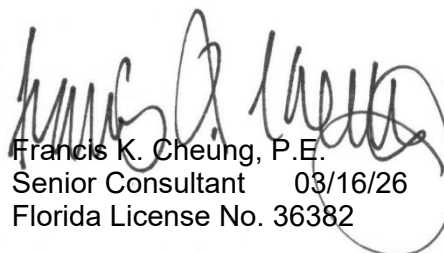
Ardaman interprets this provision to mean the next annual CCR landfill inspection and the associated inspection report must be completed and placed in the operating record within one year of the date this report is officially placed in the operating record. Accordingly, we recommend that the next annual inspection of Increment 1 be performed no later than January 2027.

Ardaman appreciates the opportunity of providing our services to Seminole. If you have any questions or need additional information, please contact us.

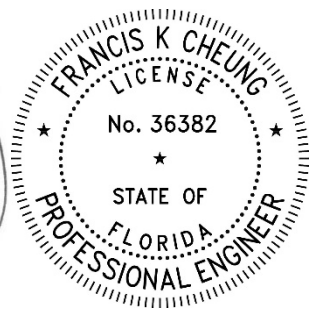
Very truly yours,
ARDAMAN & ASSOCIATES, INC.



Jeyisanker Mathiyapanam, P.E.
Project Director



Francis K. Cheung, P.E.
Senior Consultant 03/16/26
Florida License No. 36382

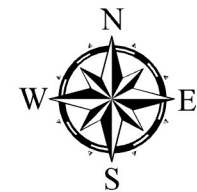


Enclosure

This item has been digitally signed and sealed by Francis K. Cheung on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

¹ In the CCR Rule, the State Director refers to “the chief administrative officer of the lead state agency responsible for implementing the state program regulating disposal in CCR landfills, CCR surface impoundments, and all lateral expansions of a CCR unit.”



Scale: 1" = 400'

AERIAL SOURCE:
GOOGLE EARTH, DECEMBER 11, 2024



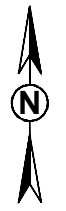
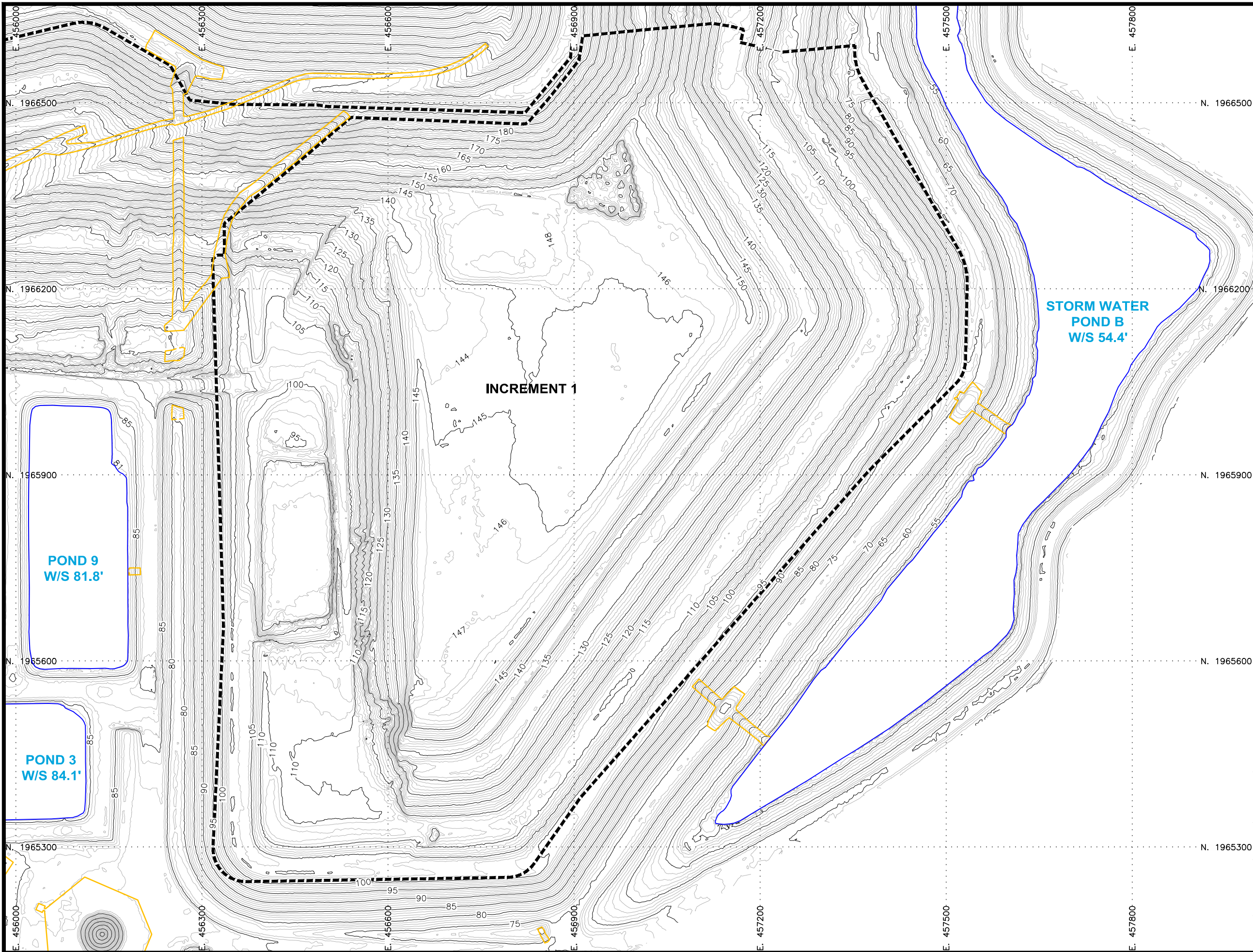
LANDFILL LAYOUT



**2026 ANNUAL CCR LANDFILL INSPECTION
SEMINOLE GENERATING STATION
PUTNAM COUNTY, FLORIDA**

DRAWN BY: ACV	CHECKED BY: PAK	DATE: 03/02/2026
FILE NO. 25-13-0065	APPROVED BY: FKC	FIGURE: 1

W:\Projects\2025\25-13-0065\ArcGIS\Layouts\20260302_Landfill_Inspection.aprx



0 75 150
 SCALE: 1"=150'

SOURCE: TOPOGRAPHIC SURVEY COMPILED BY PICKETT & ASSOCIATES, INC. FROM AERIAL DATA ACQUIRED ON DECEMBER 09, 2025

LEGEND

- INCREMENT 1 BOUNDARY
- FABRIFORM
- ELEVATION (FEET, NAVD88)
- 5' CONTOUR
- 1' CONTOUR
- WATER

STORM WATER POND B
W/S 54.4'

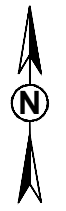
INCREMENT 1

POND 9
W/S 81.8'

POND 3
W/S 84.1'



12/09/2025 TOPOGRAPHY		
Ardaman & Associates, Inc. Geotechnical, Environmental and Materials Consultants		
2026 ANNUAL CCR LANDFILL INSPECTION SEMINOLE GENERATING STATION PUTNAM COUNTY, FLORIDA		
DRAWN BY: PM	CHECKED BY: JM	DATE: 03/11/26
FILE NO. 25-13-0065	APPROVED BY: FKC	FIGURE: 2



0 75 150
 SCALE: 1"=150'

SOURCE: AERIAL IMAGERY FLOWN
 DECEMBER 09, 2025 BY
 PICKETT & ASSOCIATES, INC.

LEGEND

- INCREMENT 1 BOUNDARY
- LIMIT OF SOIL COVER

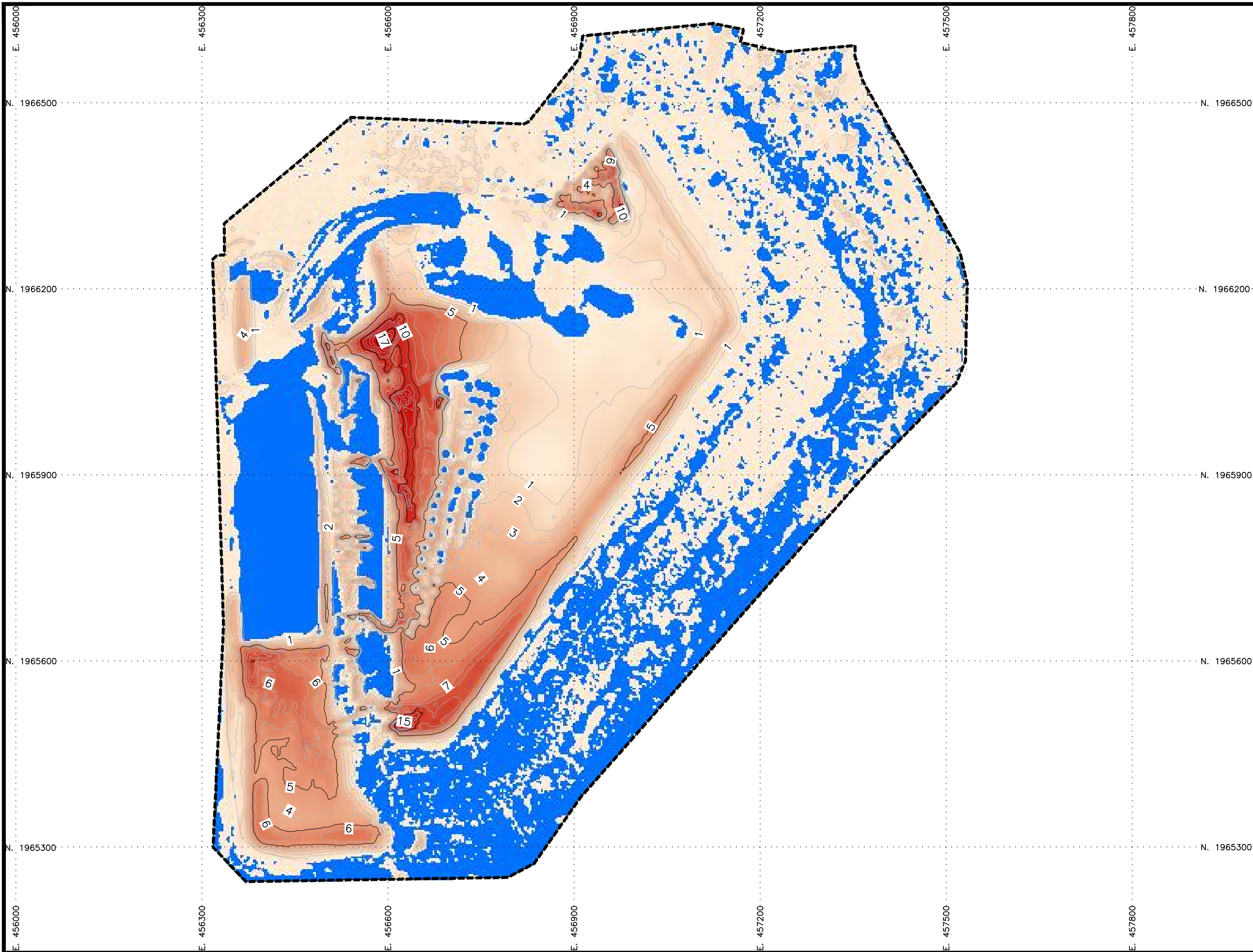


12/09/2025 AERIAL PHOTO



**2026 ANNUAL CCR
 LANDFILL INSPECTION
 SEMINOLE GENERATING STATION
 PUTNAM COUNTY, FLORIDA**

DRAWN BY: PM	CHECKED BY: JM	DATE: 03/11/26
FILE NO. 25-13-0065	APPROVED BY: FKC	FIGURE: 3



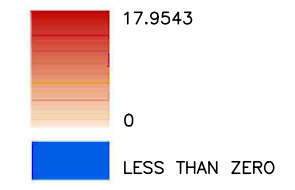
0 75 150
 SCALE: 1"=150'

SOURCE: TOPOGRAPHIC SURVEY COMPILED BY PICKETT & ASSOCIATES, INC. FROM AERIAL DATA ACQUIRED ON DECEMBER 09, 2025.

LEGEND

DIFFERENCE BETWEEN SURFACES (FEET)

- 5' CONTOUR
- 1' CONTOUR
- BOUNDARY OF INCREMENT 1 STAGES I, IIA, IIB, AND III



AIRSPACE CONSUMED FROM 12/10/2024 TO 12/09/2025

Ardaman & Associates, Inc.
 Geotechnical, Environmental and Materials Consultants

2026 ANNUAL CCR LANDFILL INSPECTION SEMINOLE GENERATING STATION PUTNAM COUNTY, FLORIDA

DRAWN BY: PM	CHECKED BY: JM	DATE: 03/11/26
FILE NO. 25-13-0065	APPROVED BY: FKC	FIGURE: 4

Appendix 1

**Representative Photographs Taken During
January 22, 2026 Landfill Inspection**

Annual Inspection of CCR Landfill
Seminole Generating Station



Containment Dike Slope on West Side of Increment 1 (Looking South)



Access Ramp into Increment 1 (Looking East)



Northwestern Corner of Increment 1 (Looking Northeast)



Auxiliary Pump on West Side of Increment 1 (Looking Southeast)

Annual Inspection of CCR Landfill
Seminole Generating Station



Auxiliary Pump Intake on West Side of Increment 1 (Looking Northeast)



Pozzocrete Slope on South Side of Increment 1 (Looking East)



Low Area on West Side of Increment 1 (Looking South)



Top Area of Increment 1 (Looking North)



Pozzocrete Dike on South Side of Increment 1 (Looking East)



Pozzocrete Dike on South Side of Increment 1 (Looking West)



Dewatered PWT Sludge on Top of Increment 1 (Looking Northeast)



Pozzocrete Dike on East Side of Increment 1 (Looking North)

Annual Inspection of CCR Landfill
Seminole Generating Station



Covered Pozzocrete Slope on South Side of Increment 1 (Looking West)



Pozzocrete Dike on South Side of Increment 1 (Looking West)



Pozzocrete Dike and Low Area on West Side of Increment 1 (Looking Northwest)



Increment 1 from Top of Vertical Expansion (Looking South)

Annual Inspection of CCR Landfill
Seminole Generating Station



Western Half of Increment 1 (From Top of Vertical Expansion Looking Southwest)



West Side of Increment 1 (From Top of Vertical Expansion Looking South)



West Side of Increment 1 (From Top of Vertical Expansion Looking South)



Discharge of Increment 1 Leachate into Pond 8 (Looking West)

Annual Inspection of CCR Landfill
Seminole Generating Station



Increment 1 Leachate Pump Station (Looking Northeast)



South Containment Dike of Increment 1 (Looking East)



West Side of Increment 1 (Looking North)