PERIODIC SAFETY FACTOR ASSESSMENT
391-3-4-.10(4) and 40 C.F.R. § 257.73
PLANT WANSLEY ASH POND 1 (AP-1)
GEORGIA POWER COMPANY

The Federal CCR Rule and, for Existing Surface Impoundments where applicable, the Georgia CCR Rule (391-3-4-.10) require the owner or operator of a CCR surface impoundment to conduct initial and periodic safety factor assessments. See 40 C.F.R. § 257.73(e); Ga. Comp. R. & Regs. r. 391.3-4-.10(4)(b). The owner or operator must conduct an assessment of the CCR unit and document that the minimum safety factors outlined in § 257.73(e)(1)(i) through (iv) for the critical cross section of the embankment are achieved. In addition, the Rules require a subsequent assessment be performed within 5 years of the completion of the previous assessment and placed in the facility operating record. See 40 C.F.R. § 257.73(f)(3); Ga. Comp. R. & Regs. r. 391.3-4-.10(4)(b). The previous Periodic Safety Factor Assessment was placed in the Operating Record on October 15, 2021.

The CCR surface impoundment known as Plant Wansley AP-1 is located on Plant Wansley property, south of Carrollton, Georgia. AP-1 is formed by engineered cross-valley embankments, one a primary dam (also known as the separator dike) on the northeast side of the impoundment and a smaller dam on the west side of the impoundment. The foundations and abutments generally consist of Piedmont Physiographic Province residual soils consisting of silt, silty sand, sandy clay, and silty clay. A transitional layer of partially weathered rock is present between the residual soils and the underlying bedrock. The bedrock consists primarily of graphitic schist, biotite schist, schist with interlayered mafic units, amphibolite/hornblende gneiss, granitic gneiss, and feldspathic quartzite. A cross section through the middle third of the separator dike, corresponding approximately to the maximum dam height, was selected for analysis consistent with the basis of the critical section evaluated in the 2021 safety factor assessment [6]. The 2021 section also incorporated surcharge loading associated with the temporary gypsum storage cells adjacent to the separator dike. These cells have since been removed, and the current section reflects the resulting existing-condition geometry.

The Notification of Intent to Initiate Closure was placed in the Operating Record on April 17, 2019. AP-1 is being closed using a closure by removal (CBR) strategy, whereby CCR is excavated and hauled to the on-site CCR landfill located approximately 0.5 miles from AP-1, followed by site restoration of the former AP-1 footprint. Closure construction activities underway as of the date of this assessment include: construction of a dedicated on-site haul road accessing the eastern extents of AP-1; expansion of the on-site CCR landfill; removal of gypsum and soil berm material from inside of AP-1; and initial stages of construction of a diversion channel network along the west embankment that is not yet in operation. Except for the gypsum cell removal, which was included as a surcharge load in the 2021 safety factor assessment [6] and has since been removed, these construction activities are generally located away from the critical section analyzed herein and have no impacts on the stability of the separator dike.

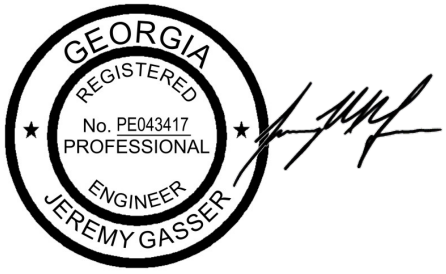
The stability analyses to determine the minimum safety factor for the critical section resulted in the following minimum safety factors:

Loading Condition	Minimum Calculated Safety Factor	Minimum Required Safety Factor
Long-term Maximum Storage Pool (Static)	1.69	1.50
Short-term Maximum Surcharge Pool (Static)	1.67	1.40
Pseudostatic Seismic	1.38	1.00

The embankments of AP-1 are not constructed of soils that are susceptible to liquefaction. Therefore, a minimum liquefaction safety factor determination was not required.

The assessment is supported by appropriate engineering calculations which are attached.

I hereby certify that this periodic safety factor assessment meets the requirements of 40 C.F.R. § 257.73.



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Jeremy Gasser, P.E.
Licensed State of Georgia, PE No. 043417
Signed 10/12/2026

COMPUTATION COVER SHEET

Client:	Georgia Power Company & Southern Company Services	**Project:**	Plant Wansley Periodic Safety Factor Assessment	**Project #:**	26012493

TITLE OF COMPUTATION: Periodic Safety Factor Assessment – Plant Wansley Ash Pond 1 (AP-1)

PREPARATION	**CALCULATION PREPARED BY:** (Calculation Preparer, CP)	Signature	Pratibha	07/17/2026
		Name	Pratibha Pandey, PhD	Date
		Title	Professional	
REVIEW	**ASSUMPTIONS & PROCEDURES CHECKED BY:** (Assumptions & Procedures Checker, APC)	Signature	Alexander C. Brewster	08/27/2026
		Name	Alexander Brewster	Date
		Title	Senior Engineer	
	COMPUTATIONS CHECKED BY: (Computation Checker, CC)	Signature	Alexander C. Brewster	08/27/2026
		Name	Alexander Brewster	Date
		Title	Senior Engineer	
BACK-CHECK	**BACK- CHECKED BY:** (Calculation Preparer, CP)	Signature	Pratibha	08/27/2026
		Name	Pratibha Pandey, PhD	Date
		Title	Professional	
APPROVAL	**APPROVED BY:** (Calculation Approver, CA)	Signature		10/12/2026
		Name	Jeremy Gasser, PE	Date
		Title	Senior Principal	

REVISION HISTORY:

NO.	DESCRIPTION	DATE	CP	APC	CC	CA
0	Issued Final	October 2026	PP	AB	AB	JG

Geosyntec Consultants, Inc. (Phone: 678-202-9500)
Georgia Certificate of Authorization (COA) No. PEF000260, Exp. 06/30/2028
1255 Roberts Boulevard NW, Suite 200, Kennesaw, Georgia 30144-3694

1.0 Purpose of Calculation

The purpose of this report is to document the Periodic Safety Factor Assessment of the subject CCR Impoundment as required by the United States Environmental Protection Agency's (EPA) final rule for Disposal of CCR from Electric Utilities (40 CFR Part 257) and the Georgia CCR Rule (391-3-4-.10(4)(b)). This assessment was performed as of August 2026 and constitutes the first required 5-year periodic update to the initial Plant Wansley AP-1 Periodic Safety Factor Assessment [6] dated October 2021, which is within the 5-year interval required by 40 C.F.R. § 257.73(f)(3). Upon completion, this assessment will be placed in the AP-1 Operating Record in accordance with 40 C.F.R. § 257.73(f)(3).

The subject CCR impoundment, also referred to as the Plant Ash Pond (AP-1), is located at Georgia Power Company's Plant Wansley near the Chattahoochee River in Heard and Carroll Counties in Georgia (Site). AP-1 lies to the northwest of the power units and supporting facilities and is separated from the storage water pond by an earthen separator dike with a maximum height of approximately 105 feet. The AP-1 and the storage water pond were both formed in 1975 by impounding flow from small tributaries to the Chattahoochee River, including Yellowdirt Creek. In 2008, two temporary gypsum storage cells were constructed on top of the ash delta in AP-1 adjacent to the separator dike and were therefore included in the 2021 Factor of Safety Assessment [6]. These cells were recently removed as part of ongoing closure construction. The closure of AP-1 is being completed using a closure by removal (CBR) strategy, whereby CCR is excavated and hauled to the on-site CCR landfill located approximately 0.5 miles from AP-1 via a dedicated on-site haul road, followed by site restoration of the former AP-1 footprint. Closure construction activities underway as of the date of this assessment include: construction of the haul road accessing the eastern extents of AP-1; expansion of the on-site CCR landfill; removal of gypsum and soil berm material previously located in the southeast portion of AP-1; and initial stages of construction of a diversion channel network along the west embankment, which is not yet in operation. These construction activities are generally located away from the critical section identified in the middle third of the separator dike analyzed herein. Accordingly, the analyzed cross-section and material conditions in this 2026 assessment are largely identical to those evaluated in 2021, with the exception of the removal of the gypsum storage cells from AP-1 and other minor staging activities in support of future CCR removal operations.

2.0 Summary of Conclusions

A geotechnical slope stability section was developed for AP-1 to evaluate the safety factors of the separator dike. The analyzed scenario represents the existing condition of the separator dike and incorporates a long-term maximum pool elevation of EL 784.7 feet, a maximum surcharge pool elevation of EL 786.8 feet, and a storage water pond level of EL 780 feet. The maximum surcharge pool elevation of EL 786.8 feet corresponds to the peak water surface elevation resulting from the 100-year, 24-hour inflow design storm evaluated in the October 2026 Periodic Inflow Design Flood Control System Plan [3]. The

downstream (northeast) slope of the separator dike was identified as the critical section based on the Closure Stability Calculation Package [1b]. No material changes to the separator dike geometry or subsurface conditions affecting that determination have occurred since that analysis. The section location at the Site is included in **Attachment 1**.

As required by the Rule, the following loading conditions were analyzed:

1. Long-term Maximum Storage Pool
2. Short-term Maximum Surcharge Pool
3. Pseudostatic Seismic

The Separator Dike is constructed of compacted native soils for which previous site-specific evaluations demonstrated that liquefaction triggering is not expected. Subsequent permit-level geotechnical evaluations have not identified changes to the embankment or subsurface conditions that would be expected to materially affect that conclusion. Accordingly, consistent with the 2021 Periodic Safety Factor Assessment, a separate liquefaction triggering evaluation was not performed as part of this periodic assessment. Rapid drawdown loading was not evaluated as AP-1 does not experience rapid changes in pool elevation under normal operating or closure conditions; this loading condition is therefore not applicable. Construction loading was not evaluated as a separate condition because ongoing closure construction activities do not impose material construction surcharge at the critical separator-dike section. Based on the calculations presented and summarized herein, the safety factors for the analyzed section meet or exceed the requirements of the Rule. Results from the analyses are included in Attachment 2 and summarized in **Table 1**.

Table 1. Section Stability Results for Plant Wansley Ash Pond

Load Conditions	***Computed Factor of Safety***	***Required Minimum Factor of Safety***
Long-term Maximum Storage Pool	1.69	1.50
Short-term Maximum Surcharge Pool	1.67	1.40
Pseudostatic Seismic	1.38	1.00

3.0 Criteria and Assumptions

3.1 Input Data

Subsurface stratigraphy and material properties were taken from the Material Properties Data Package prepared as part of the June 2025 permit modification [1a]. The model geometry was supplemented with the February 2026 composite topographic survey to define the current top-of-CCR surface. The revised parameters were formally adopted through the Request for a Minor Modification to revise AP-1 Permit No. 074-006D(CCR), approved December 5, 2025. The design geotechnical parameters used in this evaluation are summarized in **Table 2**; revisions relative to the 2021 assessment were generally minor.

Table 2. Design Geotechnical Material Parameters – Plant Wansley AP-1 Separator Dike

Material	Total Unit Weight (pcf)	Effective Shear Strength Parameters				Undrained Shear Strength Parameters $\frac{S_u}{\sigma'_v}$	
		Effective Friction Angle, ϕ' (deg)		Effective Cohesion, c' (psf)			
		2026 value	2021 value	2026 value	2021 value	2026 value	2021 value
CCR	105	32		0		-	
Native Soil	115	34	32	100	0	s_u/σ'_v=0.4 min. s_u=1,200 psf	
Dike	125	34	32	100		s_u/σ'_v=0.6 min. s_u=1000 psf	s_u/σ'_v=0.5 min. s_u=1000 psf
Medium Stiff Layer	115	37	n/a [1]	0	n/a [1]	s_u/σ'_v=0.41 min. s_u=200 psf	n/a [1]
Partially Weathered Rock (PWR)	125	40		0		-	
Bedrock	125	40		0		-	

Note 1: layer was identified and defined in the supplemental analysis by Geosyntec [1a].

Subsurface stratigraphy was delineated consistent with the updated conditions established in the Geosyntec June 2025 permit modification geotechnical packages [1a, 1b], which incorporated data from field investigations, as-built records, and historical surveys conducted for the separator dike. To reflect recent construction changes, including gypsum cell removal and minor topographic changes associated with closure staging activities in the ash delta area, a ground surface configuration was established from: (i) a composite topographic survey of the separator dike and ash delta, including bathymetry within the current ash pond water surface extents, provided by the AP-1 closure contractor (Trans Ash; [Feb 2026]); (ii) an October 2021 aerial survey covering areas outside the ash pond extents; and (iii) a 2019 bathymetric survey within the current water surface extents of the Storage Water Pond.

3.2 Loading Conditions

The loading conditions evaluated in this assessment were established based on current pool elevations, the periodic inflow design assessment, and updated seismic loading criteria. The long-term maximum pool elevation of AP-1 was assumed to be EL 784.7 feet, based on the maximum water levels recorded in February 2026 and the maximum pool elevation anticipated under current and future closure operations. The maximum surcharge pool elevation of EL 786.8 feet corresponds to the peak water surface elevation resulting from the 100-year, 24-hour storm event evaluated in the October 2026 Periodic Inflow Design Flood Control System Plan [3]. The storage water pond elevation was assumed to be EL 780 feet, consistent with the 2021 safety factor assessment.

As required by the Rule, the loading conditions were analyzed to meet their respective safety factors according to the values in Table 1. The horizontal pseudostatic coefficient (kh) of 0.08 used in this assessment was determined by the Plant Wansley Seismic Site Response and Pseudostatic Coefficient Analysis conducted by Geosyntec in June 2024 [2] for the applicable CCR Rule seismic event. The coefficient was selected based on the maximum horizontal equivalent acceleration (MHEA) profile for the separator dike, corresponding to negligible tolerable displacement. The updated analysis incorporates more recent probabilistic ground motion hazard data and site-specific response characterization, resulting in a higher coefficient than the value of 0.026 used in the 2021 assessment. The increase reflects improved characterization of the seismic hazard at the site and is considered appropriately conservative for this assessment.

4.0 Methodology

The Long-term Maximum Storage Pool pertains to the maximum water level which may exist for such time that equilibrium is reached with the soil pressure; therefore, drained soil strengths were used for all materials. Drained soil strengths were also used for the Short-term Maximum Surcharge Pool and Pseudostatic Seismic loading conditions, consistent with the 2021 safety factor assessment [6].

Pore-water pressures were represented using a linear piezometric surface between the modeled boundary elevations, consistent with the established stability analysis methodology for the separator dike. Slip surfaces were evaluated using SLIDE, a 2-dimensional (2D) limit-equilibrium slope stability software developed by Rocscience [4]. The Spencer method with non-circular slip surfaces and an automated search routine (Auto Refine) was used to identify the critical failure surface. This differs from the Morgenstern-Price method used in the 2021 assessment; both are rigorous limit-equilibrium methods. Details of the settings used in the SLIDE analysis are summarized as follows:

- Version: 2024.9.031
- Method: Spencer [5] with vertical slices
- Optimization: Yes
- Non-Circular Surfaces
- Search Method (s): Auto Refine (Limits)
- Minimum Slip Surface Depth: 5 feet (selected to filter shallow, non-critical surficial failure modes)

5.0 References

[1a] Geosyntec Consultants, Inc. (2025). “Plant Wansley – AP-1 Closure Project, Separator Dike – Material Properties Data Package (Minor Permit Modification 2, Permit No. 074-006D(CCR)).” Approved December 5, 2025.

[1b] Geosyntec Consultants, Inc. (2025). “Plant Wansley – AP-1 Closure Project, Separator Dike – Closure Stability Calculation Package (Minor Permit Modification 2, Permit No. 074-006D(CCR)).” Approved December 5, 2025.

[2] Geosyntec Consultants, Inc. (2024). “Plant Wansley – Seismic Site Response and Pseudostatic Coefficient Analysis.”

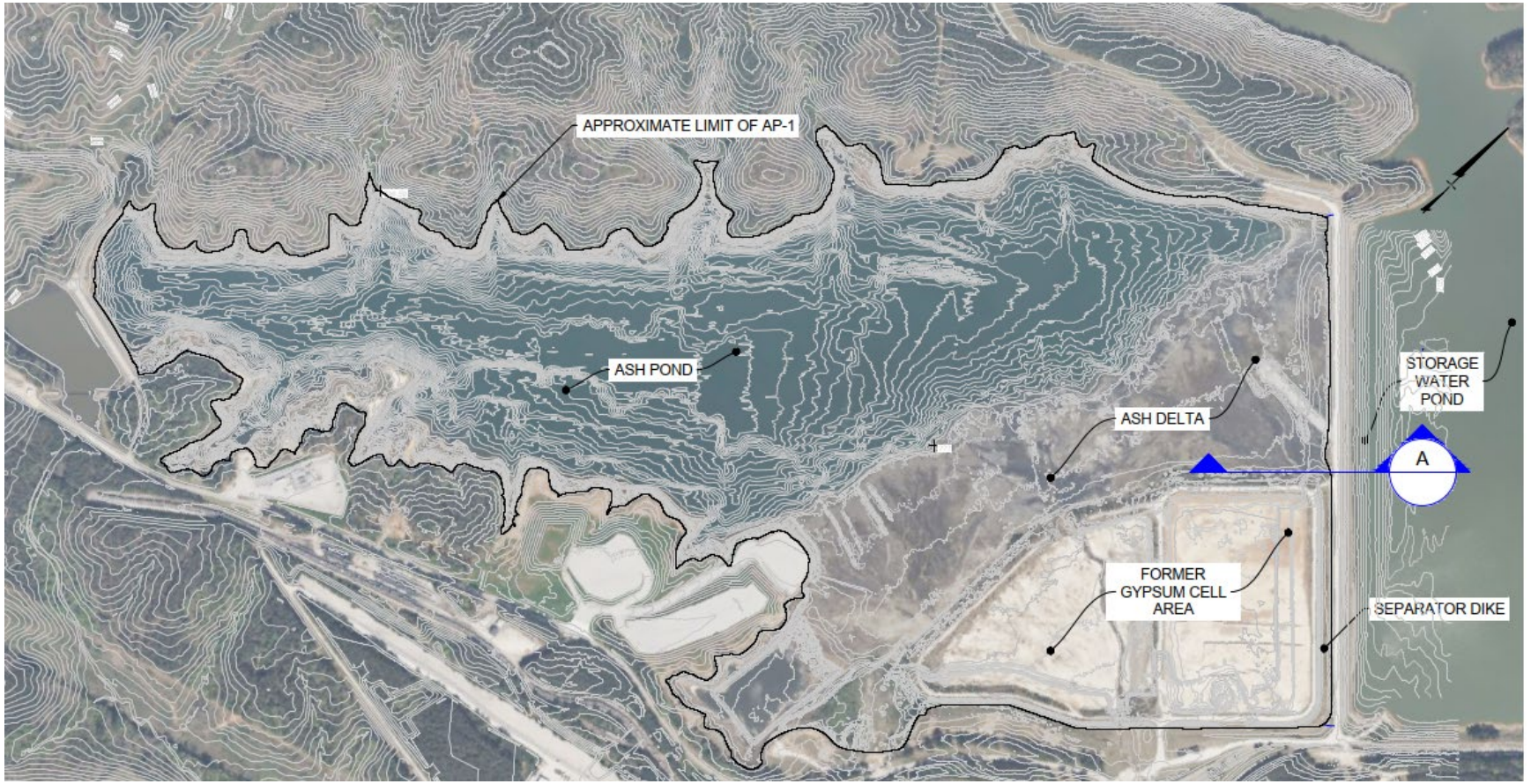
[3] Geosyntec Consultants, Inc. (October 2026). “Plant Wansley Ash Pond – Periodic Inflow Design Flood Control System Plan.”

[4] Rocscience, "Slide 2D," Rocscience, Toronto, Ontario. Version 2024.9 (2024).

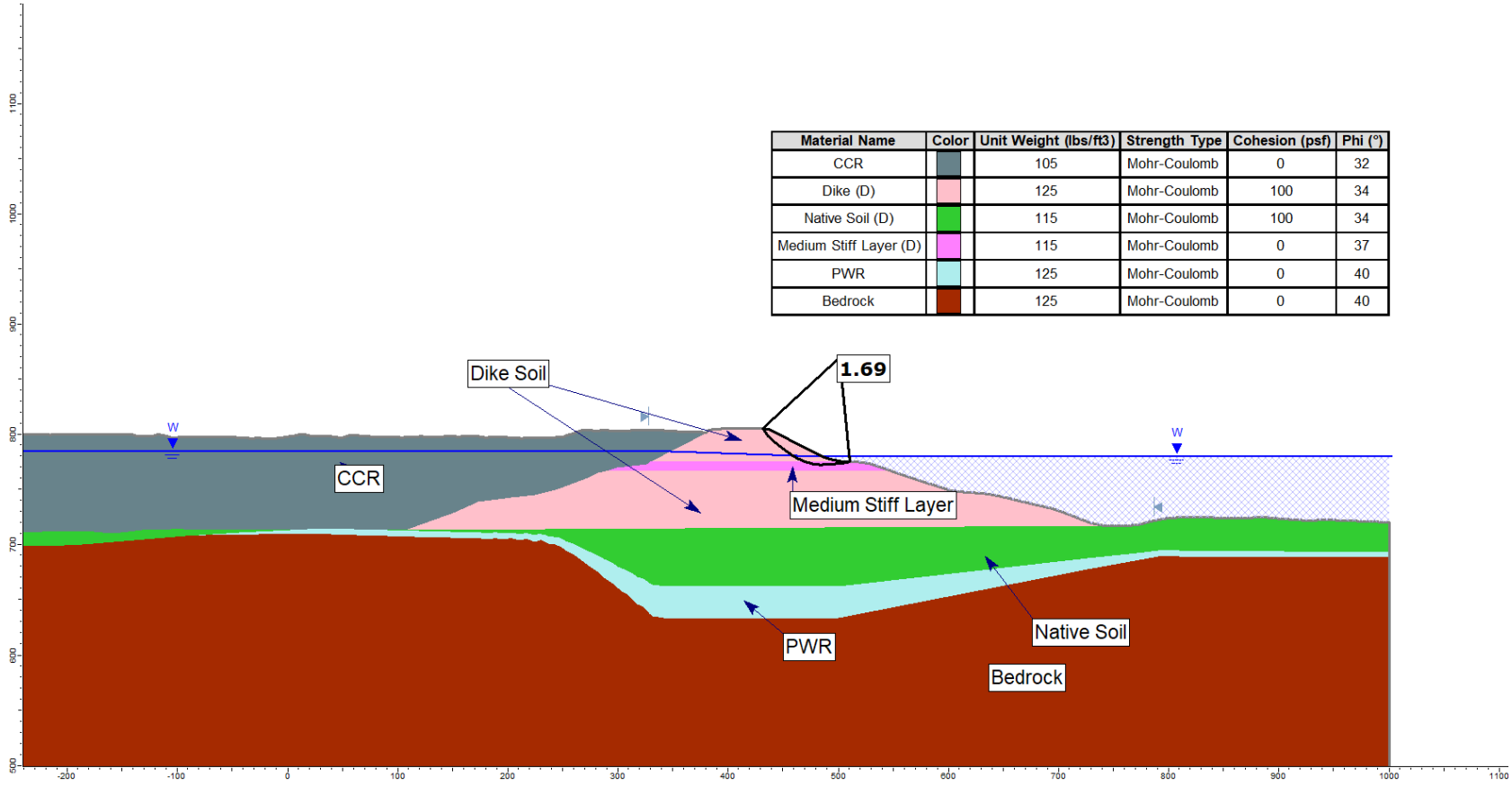
[5] E. Spencer, "A Method of Analysis of the Stability of Embankments Assuming Parallel Inter-Slice Forces," Geotechnique, vol. 17, no. 1, pp. 11-26, 1967.

[6] Geosyntec Consultants, Inc. (2021). “Plant Wansley Ash Pond 1 (AP-1) – Periodic Safety Factor Assessment.” Placed in Operating Record October 15, 2021.

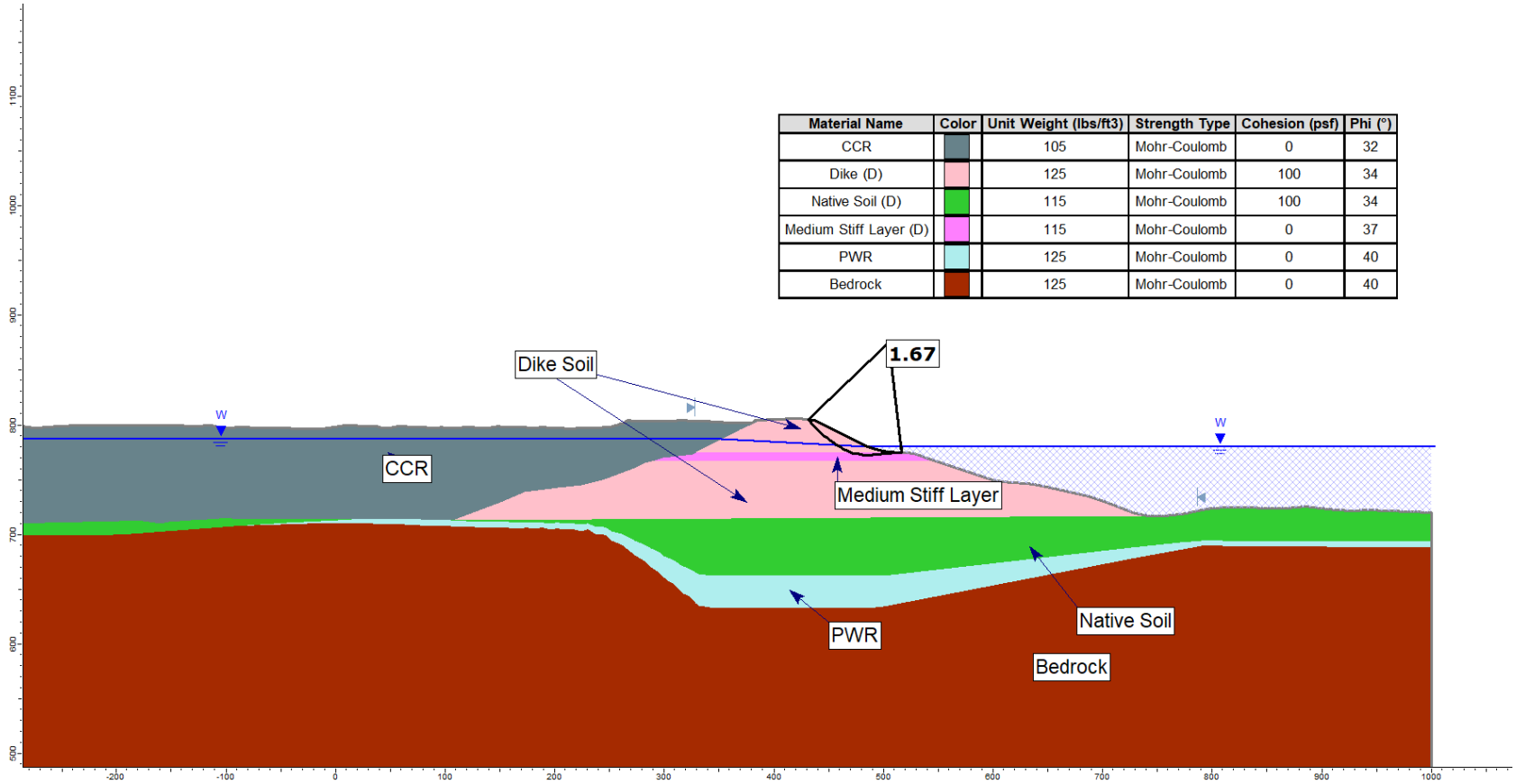
ATTACHMENT 1
Section Locations in Plan View


APPROXIMATE LIMIT OF AP-1
ASH POND
ASH DELTA
STORAGE WATER POND
A
FORMER GYPSUM CELL AREA
SEPARATOR DIKE

ATTACHMENT 2
Stability Analysis Results

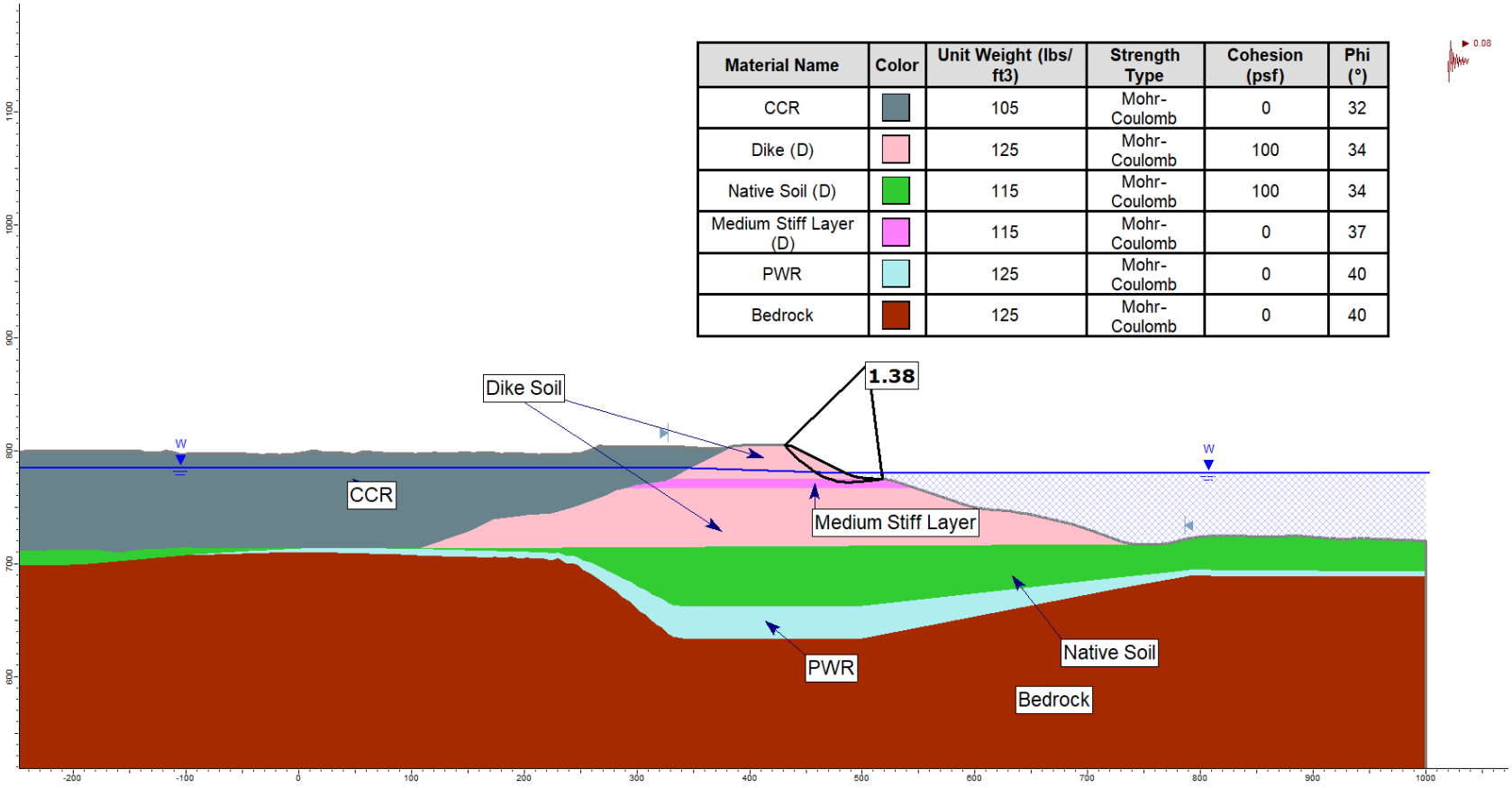


Plant Wansley Ash Pond Separator Dike Stability Analysis
Long-term Maximum Storage Pool (Static)



Plant Wansley Ash Pond Separator Dike Stability Analysis
Short-term Maximum Surcharge Pool (Static)

Material Name	Color	Unit Weight (lbs/ ft3)	Strength Type	Cohesion (psf)	Phi (°)
CCR		105	Mohr-Coulomb	0	32
Dike (D)		125	Mohr-Coulomb	100	34
Native Soil (D)		115	Mohr-Coulomb	100	34
Medium Stiff Layer (D)		115	Mohr-Coulomb	0	37
PWR		125	Mohr-Coulomb	0	40
Bedrock		125	Mohr-Coulomb	0	40



Plant Wansley Ash Pond Separator Dike Stability Analysis
Pseudostatic Seismic