

HISTORY OF CONSTRUCTION
40 C.F.R. § 257.100(f)(2)(ii) and 40 C.F.R. § 257.73(c)(1)(i)-(xii)
PLANT BRANCH ASH POND E (AP-E)
GEORGIA POWER COMPANY

A rule amendment to the Federal Coal Combustion Residuals (CCR) Rule (40 C.F.R. Part 257) became effective on November 8, 2024. See Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Legacy CCR Surface Impoundments, 89 Fed. Reg. 38950 (“Legacy Rule”). The Legacy Rule defines the term “legacy CCR surface impoundment” and establishes regulatory requirements for units that meet the definition of a legacy CCR surface impoundment. The Legacy Rule requires the owner or operator of a legacy CCR surface impoundment to compile a history of construction. See 40 C.F.R. § 257.100(f)(2)(ii); 40 C.F.R. § 257.73(c)(1)(i)-(xii). To the extent feasible, the following information is provided:

(i) Site Name and Ownership Information:

Site Name:	Plant Branch
Site Location:	Putnam County
Site Address:	1100 Milledgeville Rd Milledgeville, GA 31061
Owner:	Georgia Power Company
Owner Address:	241 Ralph McGill Blvd Atlanta, GA 30308
Point of Contact:	Manager Environmental Affairs Georgia Power Company BIN 10221 Atlanta, Georgia 30308 (404) 506-6505
CCR Impoundment Name:	Plant Branch Ash Pond E (AP-E)
NID Identification Number:	NPDES Permit No. GA0026051

(ii) CCR Unit Location Map:

33.204497 N, 83.329289 W

The location of AP-E is shown on the United States Geological Survey (USGS) 7½-minute topographic quadrangle map presented in the Appendix.

(iii) Purpose of CCR Unit:

Plant Branch formerly operated as a four unit, coal-fired power plant that commenced power generation in 1965, ceased generating electricity prior to April 2015, and was decommissioned in 2019. AP-E is one of the five ash ponds (A, B, C, D, and E) that were constructed to receive and store coal combustion residuals (CCR) during power generation at Plant Branch. AP-E is currently inactive and will be closed by removal.

(iv) Watershed Description:

AP-E is located within the Beaverdam Creek – Lake Sinclair Subwatershed (HUC-12), which encompasses 13,618 acres. This subwatershed is part of the Big Cedar Creek Watershed (HUC-10), which encompasses 139,574 acres. Plant Branch is located entirely within the Big Cedar Creek Watershed. The drainage area associated with AP-E is approximately 913 acres, which includes direct rainfall and runoff from adjacent areas (e.g., northern and western diversions and their associated stormwater ponds).

(v) Description of Physical and Engineering Properties of CCR Unit Foundation/Abutments:

Plant Branch is located within the Piedmont physiographic province, which lies between the Blue Ridge Mountains to the northwest and the Upper Coastal Plain to the south. This province is underlain by regionally metamorphosed rocks including granitic gneisses, amphibolites, and mica schists. Physical and chemical weathering of metamorphic and igneous rocks in the humid climate of the southern Piedmont results in a variably thick blanket of residual soils and saprolite above the bedrock. The degree of weathering decreases gradually with depth, with no clear boundary typically present between the weathered zones. Because of such variations in rock types and structure, the depth of weathering can vary significantly over short horizontal distances. The thickness of the residual soil encountered in borings is variable, ranging from approximately 10 feet (ft) to as much as 75 ft. The observed saprolite thickness is consistent with other Piedmont areas in the southeastern United States. The saprolite is thicker in upland areas, and generally thinner in lowland areas. Between the residual soil/saprolite zone and the underlying bedrock there is a zone of partially weathered rock (PWR), as defined by standard penetration test data, where available. The PWR at the site was encountered at depths between 2 and 60 ft below ground surface (ft bgs) and accounts for a majority of the “transition zone” that lies between the saprolite and underlying competent bedrock. The transition zone, consisting of PWR and the upper fractured bedrock, is relatively thin with thicknesses generally being less than 10 feet. The top of rock surface generally follows topography which has been largely uniformly weathered. The top of rock surface across the site ranged from within a few feet of ground surface to approximately 90 ft bgs.

AP-E is impounded by a main, cross valley dam along its eastern boundary and by natural ground on the other sides. Prior to the construction of AP-E, 22 borings (A-1 through A-22) were drilled within the AP-E Dam footprint as shown in the Appendix. From the ground surface to their termination depth, the borings generally encountered sandy silty clay, sand, and partially weathered rock. Within the low point in the valley (approximately from Boring A-8 to Boring A-14), the sandy silty clay was reported to be soft and deemed unsuitable for the dam foundation. As noted in design drawings, the soft material, not suitable for the dam foundation, was to be removed during construction. At the south abutment, the design documents called for a 20-ft wide cut off trench excavated to hard rock, all rock overhangs trimmed, and slurry grout used as needed to ensure a proper surface for the fill placement and compaction.

AP-E Dam is regulated as a Category I Dam under the Georgia Safe Dams Program.

(vi) Summary of Site Preparation and Construction Activities:

Prior to the construction of AP-E Dam, exploration for dam foundation and borrow areas, including drilling and lab testing, were completed in November 1980. Boring locations and borrow are presented in the Appendix, and findings from the dam foundation exploration are summarized in the previous section. A summary of borrow area materials is included in the Appendix.

Original construction of AP-E Dam was completed in April 1982. AP-E Dam was constructed to approximate Elevation (El.) 431.4 ft with a 3 Horizontal to 1 Vertical (3H to 1V) slope on the downstream side and a 2.5H:1V slope on the upstream side. AP-E Dam crest is 15 ft in width. The materials used in AP-E Dam construction were sourced from the borrow areas shown in the Appendix. The cross section shows that the most impermeable material was to be placed in the core of the dam, while the less impervious material was to be placed on the outer portions of the dam. According to AP-E Dam Construction Specifications and QC Procedures dated 1981, all fill material was to be compacted to at least 98% of the maximum dry density and within -1% to +2.5% range of the optimum moisture content determined by the standard Proctor compaction test. Sand for the blanket drain and filters was to be compacted to at least 95% of the maximum dry density as determined by the standard Proctor compaction tests. Engineering design parameters were obtained from soil samples collected and tested during pre-construction geotechnical investigation, pre-construction borrow studies, and subsequent exploration, and were presented in the original stability analysis.

In 1984, relief wells were installed along the downstream toe of AP-E Dam to reduce the high pressures observed in the piezometers. Locations and details of the relief wells are presented in the Appendix. In 2004, a 3-ft high, reinforced concrete cantilevered wave wall was installed along the crest of the upstream dam slope to provide protection from wave run-up during high level events. The footing of the wall was in contact with the Fabriform upstream slope protection. At the abutment locations where the earth dam height was less than 2 ft, grouted rubble mounds were used to taper the wall into the existing ground.

(vii) Engineering Diagrams:

The following drawings including relevant information on the construction of AP-E can be found in the Appendix:

- Site Location Map
- Plant Harllee Branch Ash Pond “E” Site Plan (Sheet E-79 dated 1/19/1981)
- Plant Harllee Branch Ash Pond ‘E’ Dike Plan (Sheet E-78 dated 5/27/1982)
- Plant Harllee Branch Ash Pond E Proposed Borrow Areas and Boring Plan (Sheet E-75 dated 1/19/1981)
- Plant Harllee Branch Ash Pond ‘E’ Dike Soil Profile & Sections (Sheet E-77 dated 12/10/1980)
- Plant Harllee Branch Ash Pond ‘E’ Dike Typical Construction Sections (Sheet E-81 dated 12/3/1980)
- Plant Harllee Branch Ash Pond ‘E’ Dike Drainage Sections & Details (Sheet E-76 dated 12/4/1980)
- Plant Harllee Branch Ash Pond E Borrow Area Materials (Sheet C-81 dated 1/12/1981)
- Plant Harllee Branch Ash Pond “E” Dike Slope Stability (Drawing E-80 Sheet 1 dated 12/5/1980)
- Plant Harllee Branch Ash Pond “E” Dike Slope Stability (Drawing E-80 Sheet 2 dated 12/5/1980)
- Plant Harllee Branch Ash Pond E Relief Wells (Sheet E-109 dated 4/3/1984)
- Plant Harllee Branch Ash Pond E Ash Pond Dike Wave Wall As-built Plan and Cross Sections (Sheet E12502 dated 3/30/2006)
- Bottom of CCR Grades (Soil/CCR Interface) at Ash Pond E (Geosyntec, 2024)
- Locations of Instrumentations at or near Ash Pond E Dike (Geosyntec, 2025)
- Plant Harllee Branch Ash Pond E Dike Piezometer Locations (Sheet H-982-6 dated 5/10/2006)
- Plant Harllee Branch Return/Discharge Structure Neat Lines and Details (Sheet E-82 dated 12/15/1980)

(viii) Description of Instrumentation:

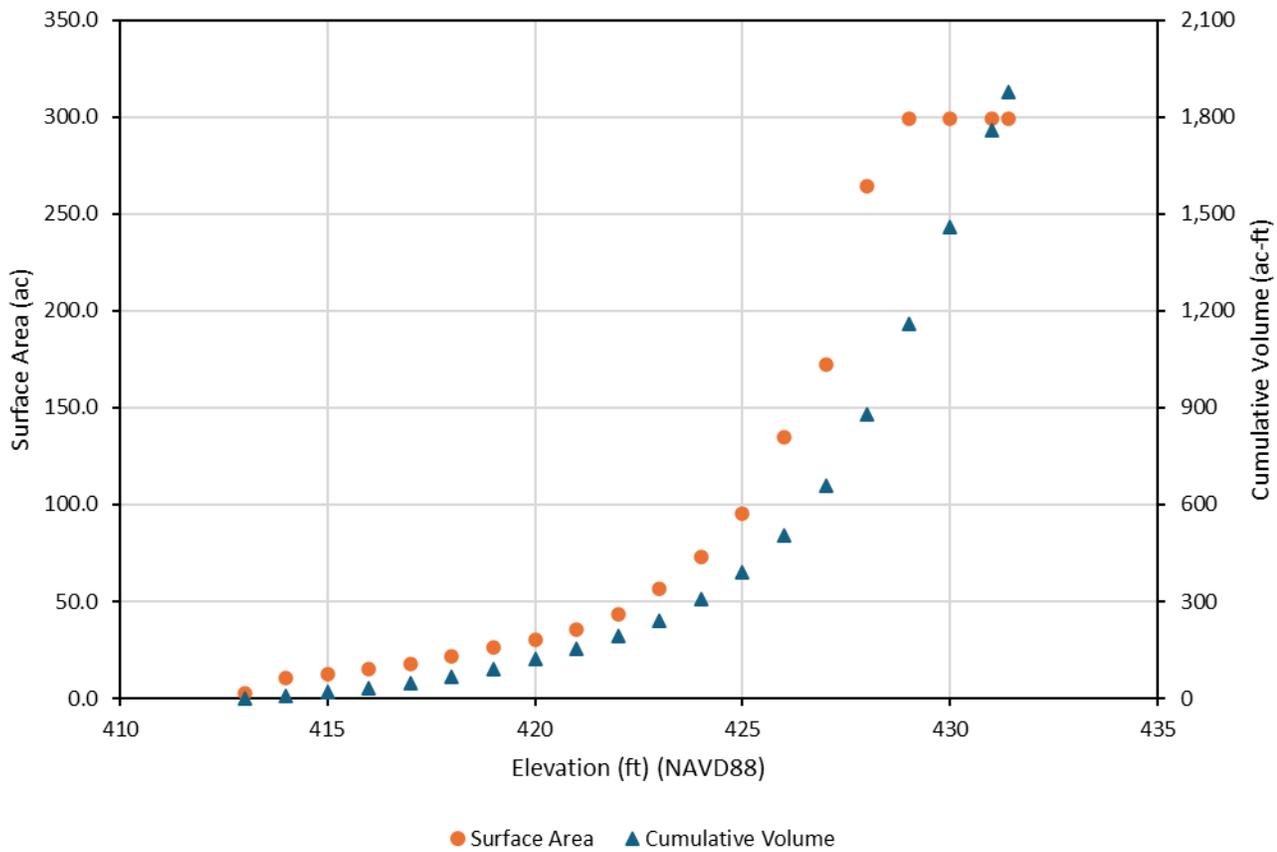
Nineteen piezometers (PZ1 through PZ19) have been installed at AP-E Dam or adjacent to the toe of AP-E Dam to monitor the phreatic surface within the dam. Locations of the piezometers are presented in the Appendix. Eight piezometers (PZ1 through PZ8) are located at the crest or downstream slope of the dam. Eleven

piezometers (PZ9 through PZ19) are located beyond the downstream toe of the dam. Readings from these nineteen piezometers are collected at least every 30-days by qualified personnel. The locations of twelve finger drains and ten relief wells are presented in the Appendix. The finger drains and relief wells are also measured at least every 30-days.

There are seven deformation monuments to monitor the vertical movement of the AP-E Dam. The monuments were surveyed every 2 years until October 2024 and at least every 30-days since.

(ix) Area-Capacity Curves:

Plant Branch, Ash Pond E



Note: The surface area of the highest closed contour available from the LiDAR was used as the surface area for elevations above the highest closed contour.

(x) Spillway and Diversion Design Features and Capacity Calculations:

AP-E was built with an overflow structure which consisted of a 30-inch (in.) diameter steel pipe. The 30-in. diameter steel pipe was decommissioned by grouting and abandoned in place in 2016. Presently, AP-E has a primary outlet structure which was previously used as a return/discharge structure during operations at Plant Branch, as well as an auxiliary spillway. Both structures are located approximately 1,200 feet southeast of the dam. The primary outlet structure includes a vertical, concrete inlet structure with a weir. The top opening of the inlet structure is 13.5-ft long by 7-ft wide at El. 430 ft. The height of the weir, and thereby the operating water elevation within AP-E, is controlled by adding or removing 9.5-ft long stop logs from El. 416 ft to El. 430 ft.

The structure discharges through an underground 36-in. diameter high-density polyethylene (HDPE) pipe with an upstream invert elevation at El. 410 ft. The underground 36-in. diameter HDPE pipe transitioned to an aboveground/underground 24-in. diameter HDPE pipe that discharged by gravity to Ash Pond D. In 2021, the outlet system was modified with the underground 36-in. diameter HDPE pipe transitioning to an aboveground/underground 30-in. diameter HDPE pipe that discharges by gravity to Ash Pond B which serves as holding pond for the on-site wastewater treatment system. The auxiliary spillway, permitted under National Pollutant Discharge Elimination System (NPDES) Permit Number GA0026051, is an approximately 85-ft wide earthen spillway with a crest at El. 430 ft and is located directly behind the primary outlet structure.

Existing water management diversion channels (Northern Diversion and Western Diversion) were installed in 2021 to reduce the volume of run-on into AP-E. The channels can accommodate the 100-year, 24-hour storm event without overtopping.

With a maximum allowable starting water surface elevation of El. 417.0 ft, the primary outlet structure and auxiliary spillway at AP-E can adequately manage the Probable Maximum Precipitation (6-hour, Antecedent Moisture Condition III) without overtopping the dam (i.e., El. 431.4 ft).

(xi) Construction Specifications and Provisions for Surveillance, Maintenance and Repair:

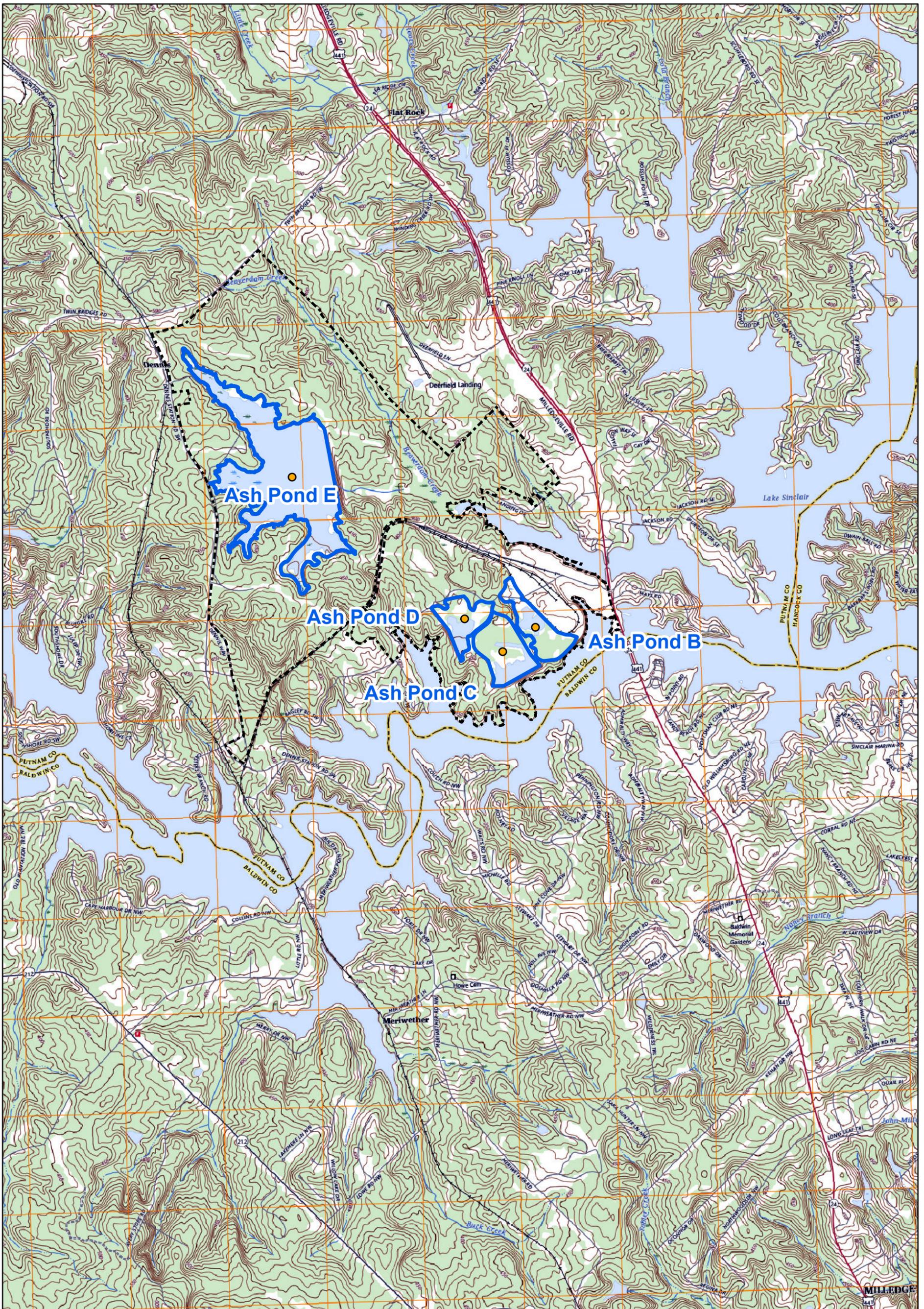
Construction specifications and QC procedures for AP-E Dam construction is discussed in Section vi.

Inspections of AP-E Dam are conducted on a regular basis, semi-annually by professional dam safety engineers and at 7-day intervals by trained plant personnel or qualified staff. In addition, inspections are performed after any unusual circumstance, which is procedurally defined as an elevated rain event, post storm (hurricane, flood, etc.), post flood event (if adjacent to a river or stream), high tide (if applicable), earthquake, or blasting or demolition activities with vibrational impacts (stack drops, etc.). The inspections provide a visual assessment that structures are sound and that action is taken, as needed, based on the findings. Safety inspections include numerous checklist items. Specific items vary from site to site but generally include observations for pond levels, weather conditions, rainfall since the prior inspection, instrument readings, condition of retaining structures, slopes, drains and discharge structures, and surface anomalies such as erosion, settlement, animal burrows, or ant hills. Dam safety engineers assess instrument readings, inspect any maintenance or remediation performed since the previous inspection, check the status of work recommended at prior inspections, ensure that emergency notification information is current, and evaluate any items noted during 7-day interval inspections performed by qualified personnel.

(xii) Known Record of Structural Instability:

There is no known record of structural instability for AP-E.

APPENDIX



- Legend**
- Property Boundary
 - Pond Boundary
 - Topographic Contour (10-ft intervals)

Notes:
 1. Topography data obtained from USGS 7.5-Minute Series, 2023.



**USGS Topographic Map
 Lake Sinclair West Quadrangle**

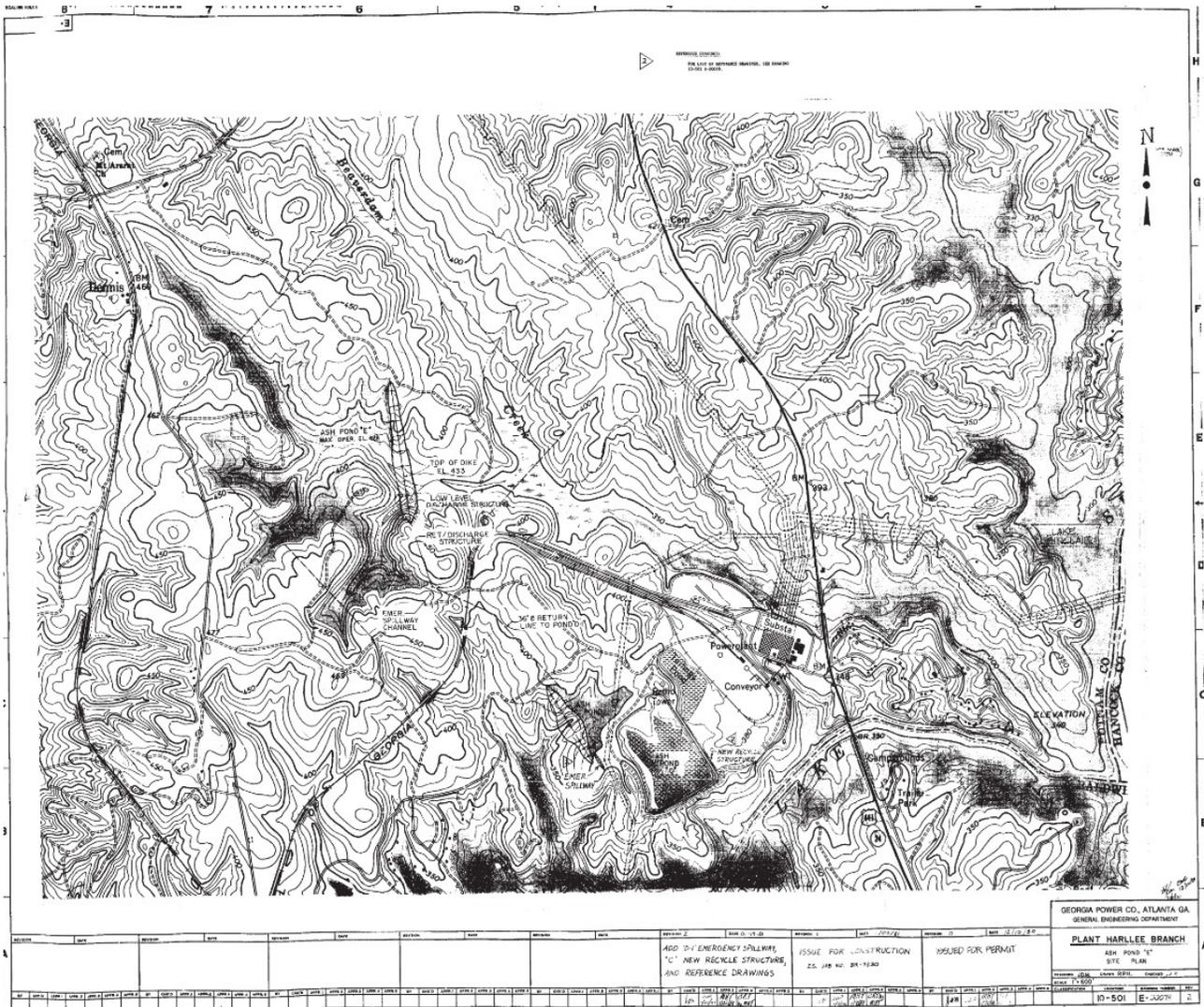
Georgia Power Company
 1100 Milledgeville Road
 Putnam County, GA 31061

Geosyntec
 consultants

Appendix

Kennesaw, GA

February 2026



GEORGIA POWER CO., ATLANTA, GA. GENERAL ENGINEERING DEPARTMENT									
PLANT HARLEE BRANCH ASH POND "E" SITE PLAN									
DATE: 1/19/81									
DRAWN BY: [blank] CHECKED BY: [blank] DATE: [blank]									
SCALE: 1" = 50'									
PROJECT NO. GW11718									
SHEET NO. E-79									

**Plant Harlee Branch Ash Pond "E" Site Plan
(Sheet E-79 dated 1/19/1981)
Georgia Power Company**

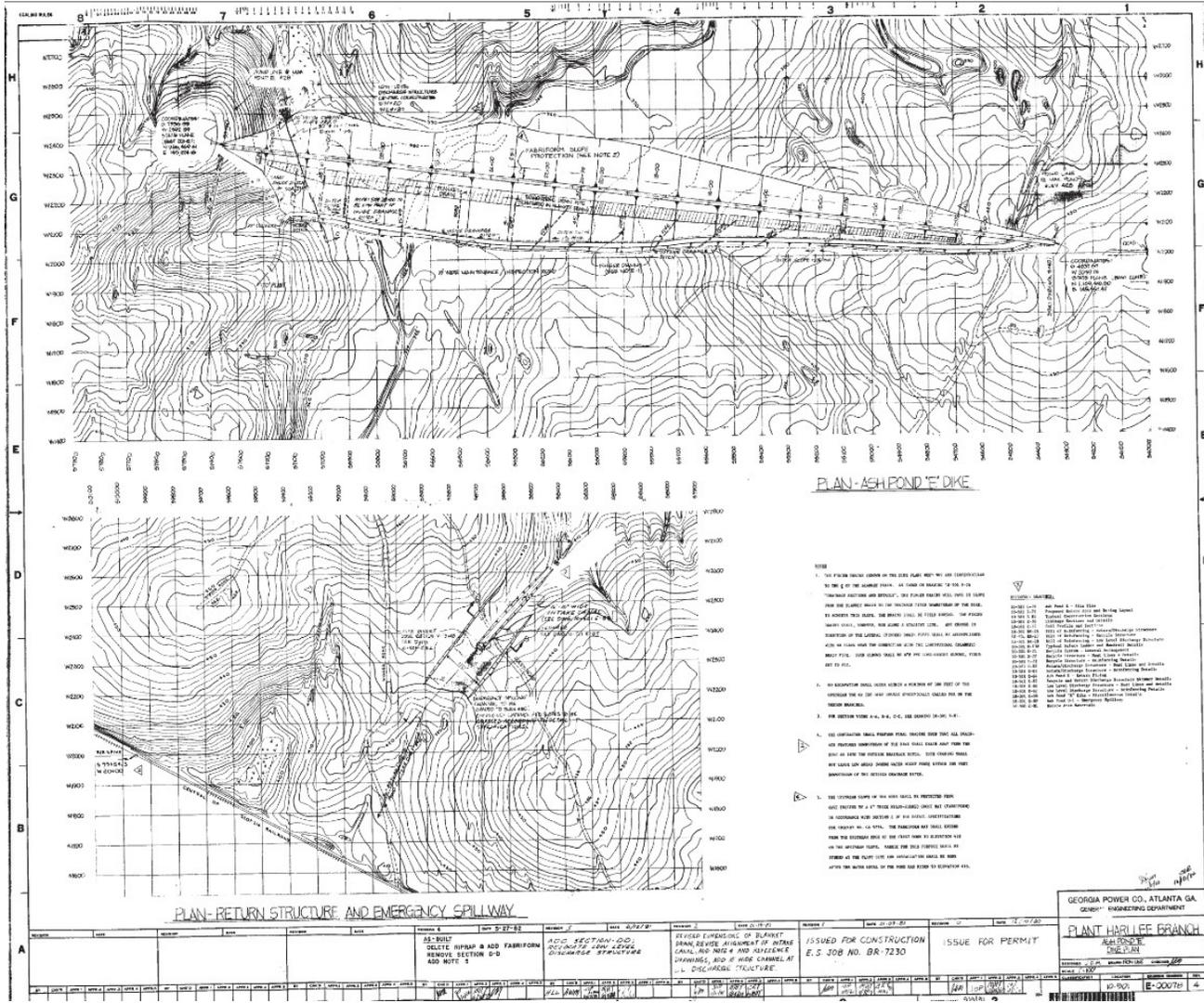
Geosyntec
consultants



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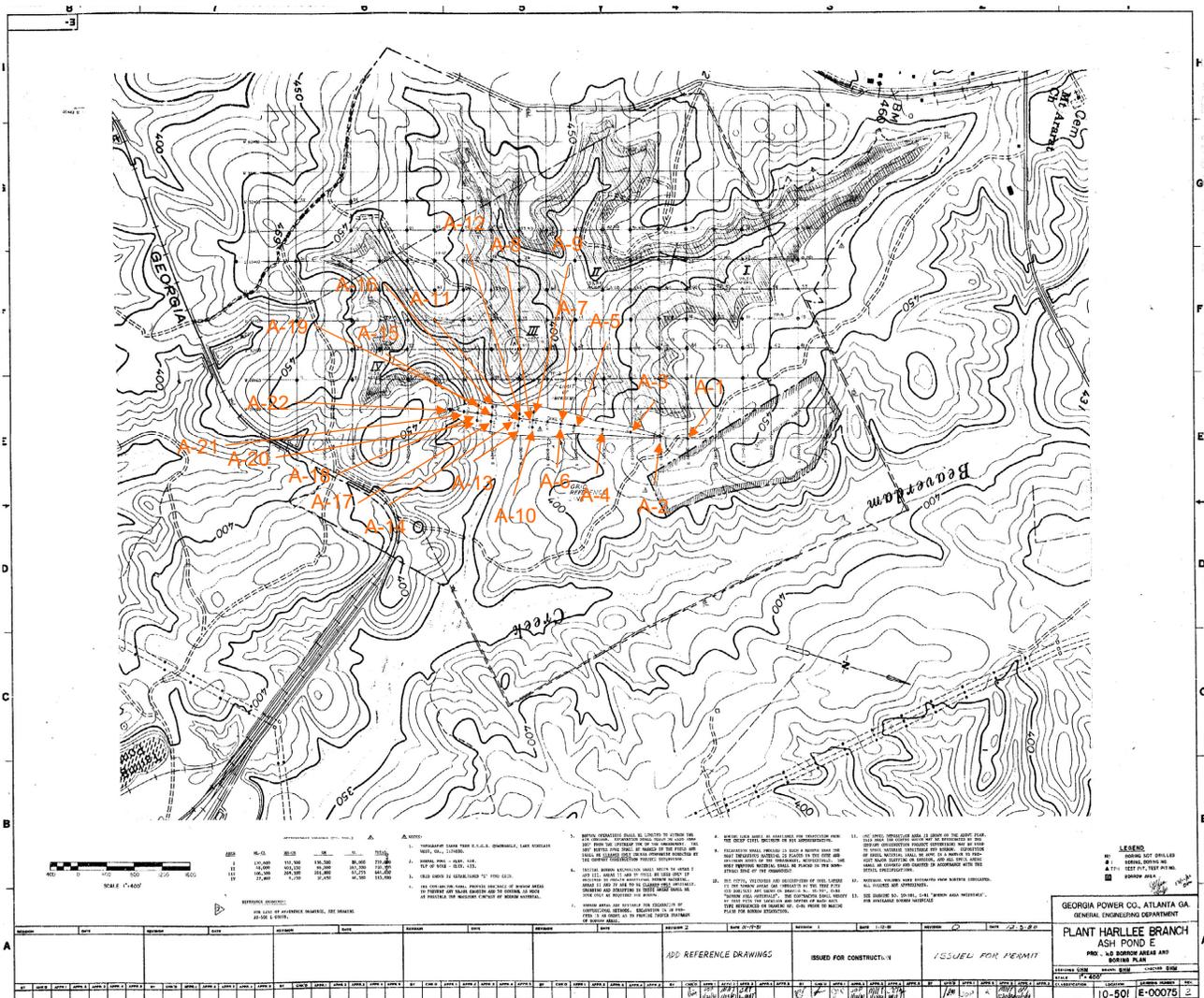


**Plant Harlee Branch Ash Pond 'E' Dike Plan
(Sheet E-78 dated 5/27/1982)
Georgia Power Company**



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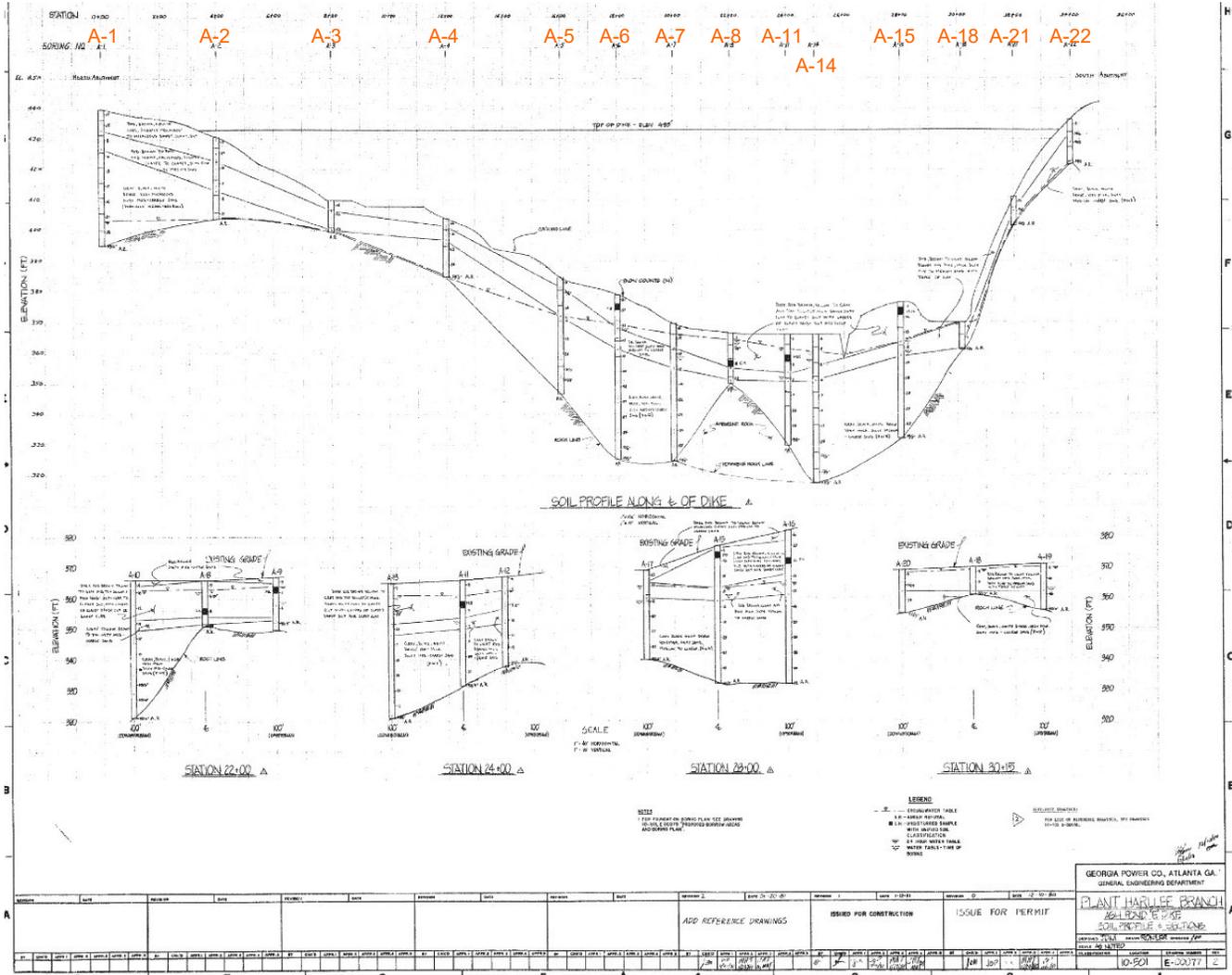
Plant Harllee Branch Ash Pond E Proposed Borrow Areas and Boring Plan (Sheet E-75 dated 1/19/1981)
Georgia Power Company



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**Plant Harllee Branch Ash Pond 'E' Dike Soil Profile & Sections
(Sheet E-77 dated 12/10/1980)
Georgia Power Company**

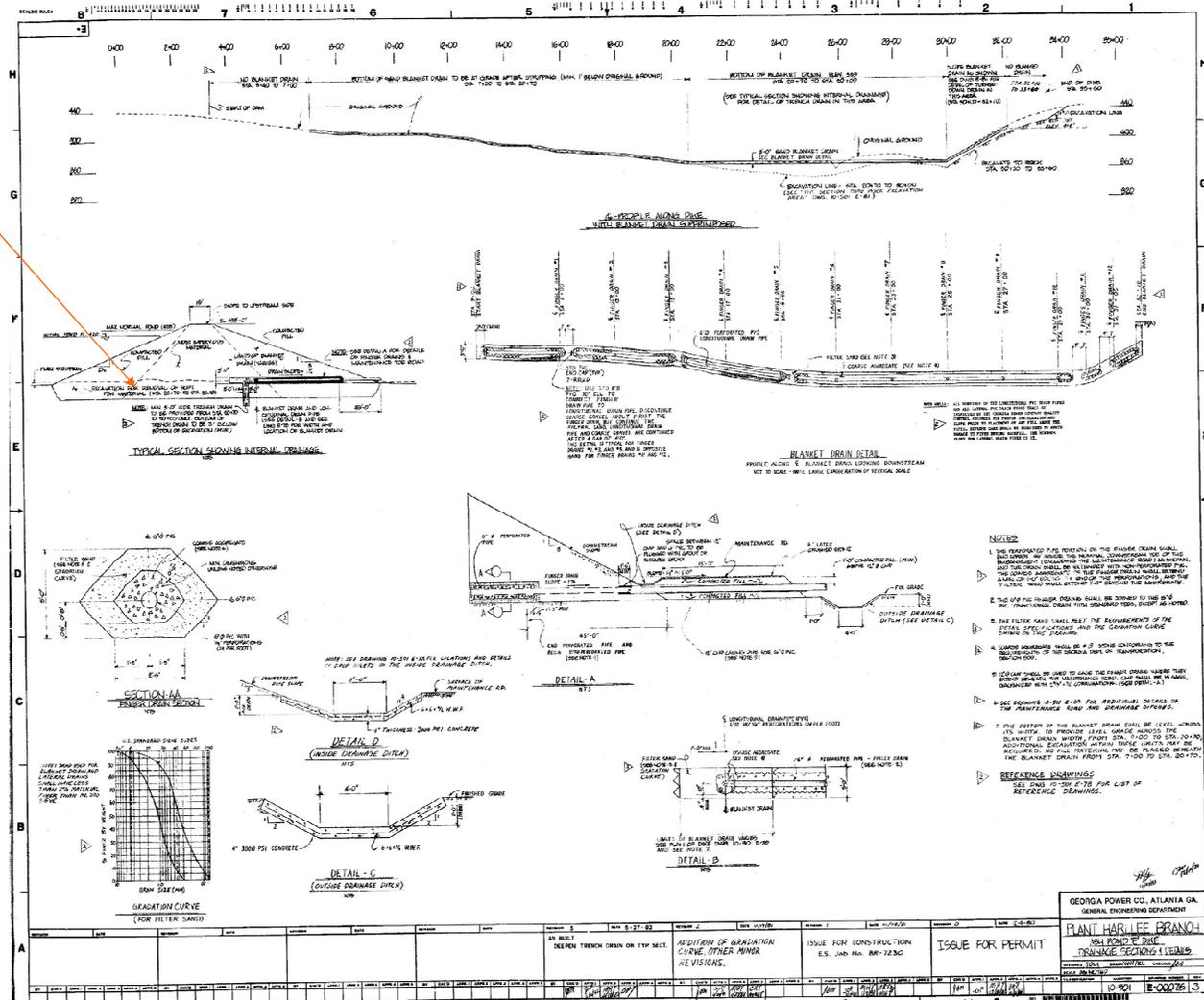
Geosyntec
consultants



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Excavation for removal of soft foundation material (STA 20+70 to STA 30+50).



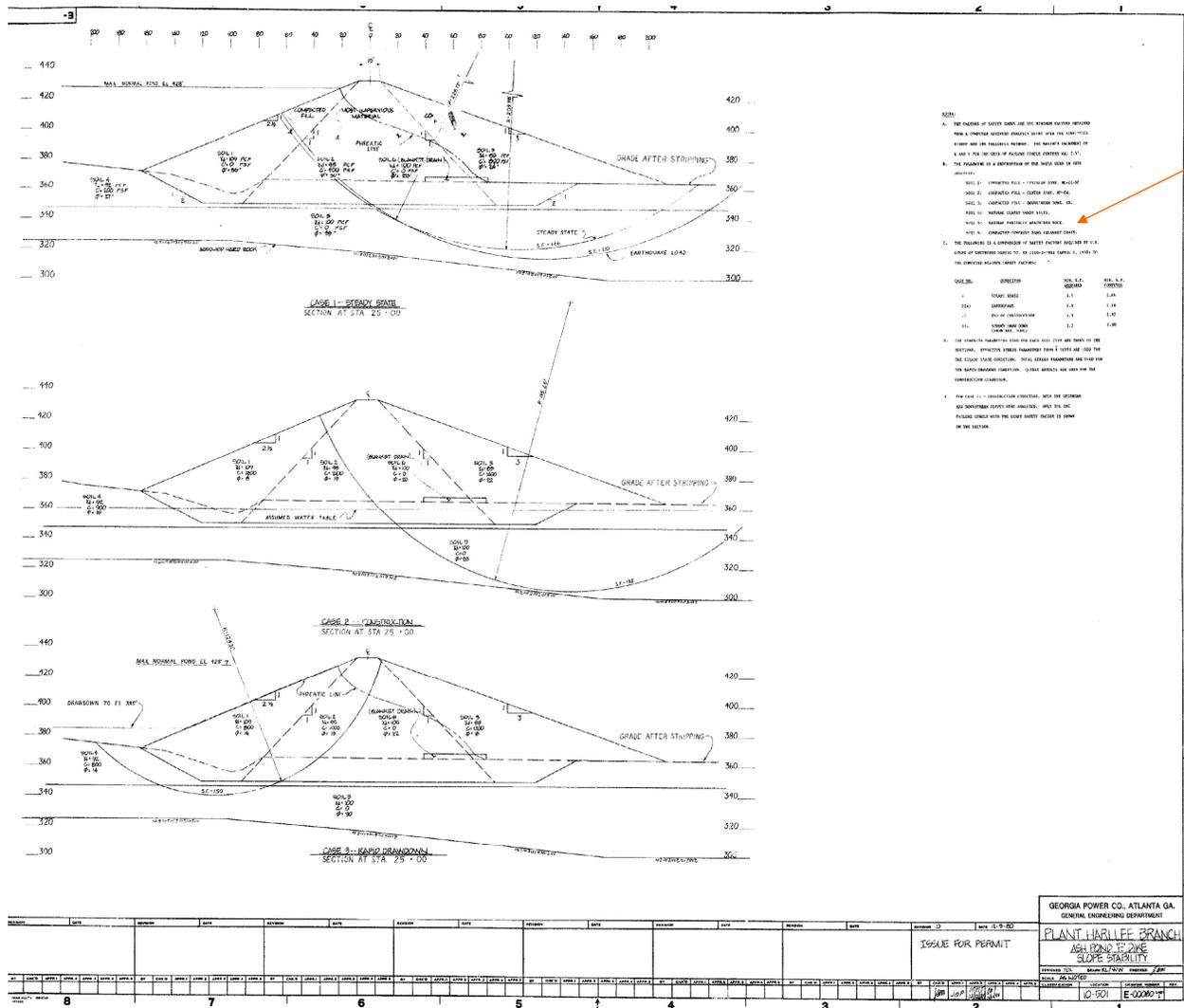
Plant Harllee Branch Ash Pond 'E' Dike Drainage Sections & Details
 (Sheet E-76 dated 12/4/1980)
 Georgia Power Company



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Appendix

Point:



The following is a description of the soils used in this analysis:

- Soil 1: Compacted Fill – Upstream Zone. ML-CL-LC.
- Soil 2: Compacted Fill – Center Zone. MH-CH.
- Soil 3: Compacted Fill – Downstream Zone. SM.
- Soil 4: Natural Clayey Sandy Silts.
- Soil 5: Natural Partially Weathered Rock.
- Soil 6: Compacted Concrete Sand Blanket Drain.

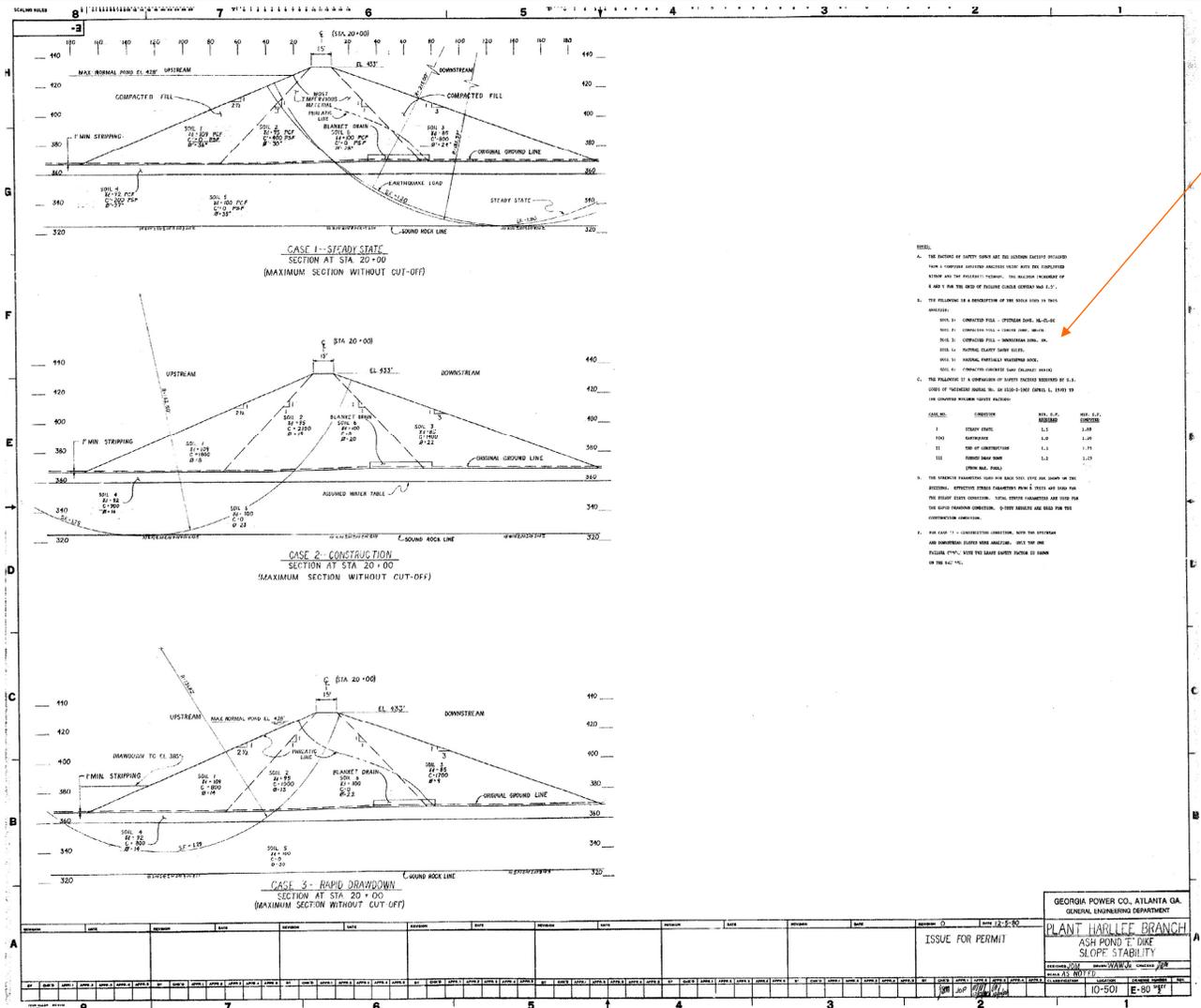
Plant Harlee Branch Ash Pond "E" Dike Slope Stability
 (Drawing E-80 Sheet 1 dated 12/5/1980)
 Georgia Power Company

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February 2026

Appendix

Point:



The following is a description of the soils used in this analysis:

- Soil 1: Compacted Fill – Upstream Zone. ML-CL-SC.
- Soil 2: Compacted Fill – Center Zone. MH-CH.
- Soil 3: Compacted Fill – Downstream Zone. SM.
- Soil 4: Natural Clayey Sandy Silts.
- Soil 5: Natural Partially Weathered Rock.
- Soil 6: Compacted Concrete Sand Blanket Drain.

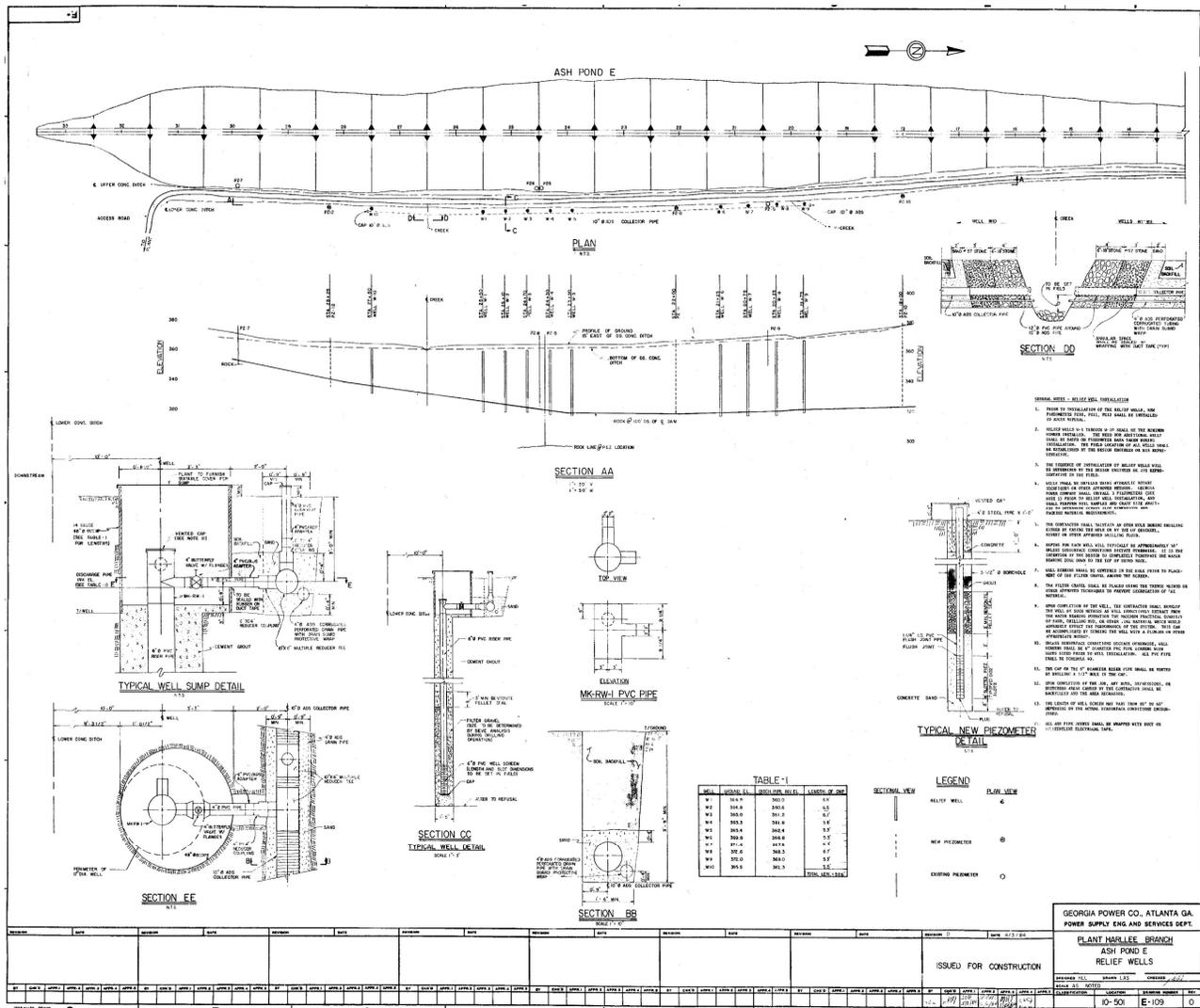
**Plant Harlee Branch Ash Pond "E" Dike Slope Stability
(Drawing E-80 Sheet 2 dated 12/5/1980)
Georgia Power Company**



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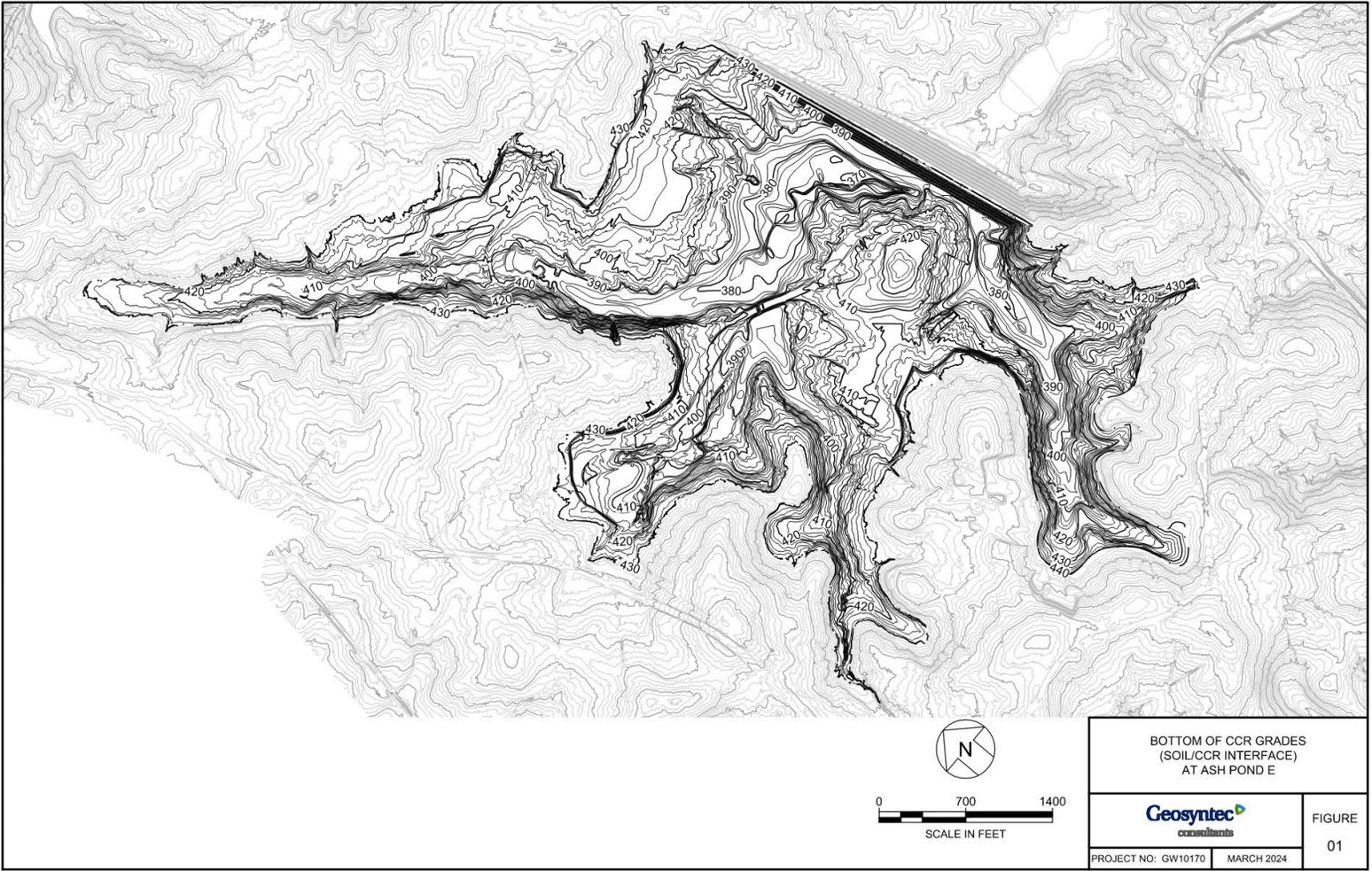
Plant Harllee Branch Ash Pond E Relief Wells
(Sheet E-109 dated 4/3/1984)
Georgia Power Company



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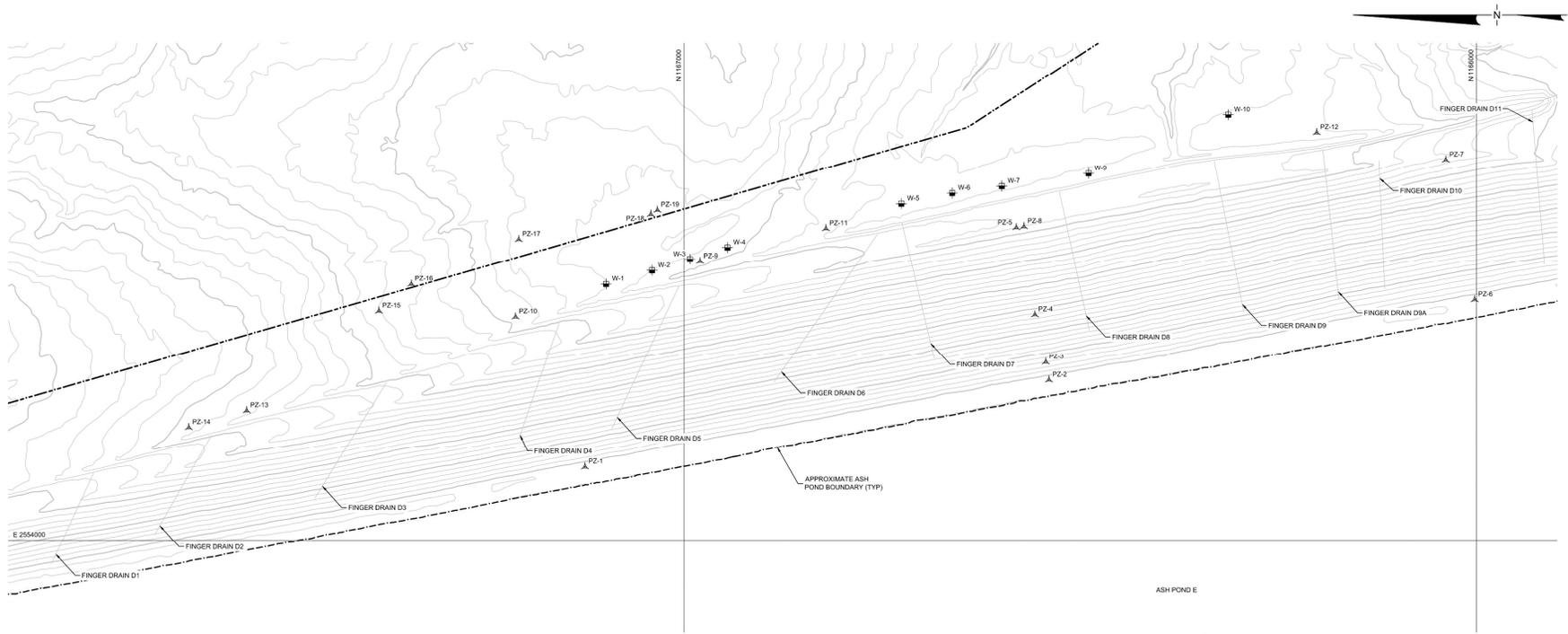
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L:\CADD\GEORGIA POWER\PLANT BRANCH\GW6384.01\POND B.C.C.D\FIGURES\FIG_POND E_BOTTOM ASH AND EXCAVATION UPDATES_MAR2024 - Last Saved by: B.Gladstone on 10/17/25



Note: Ash Pond E contains approximately 10,892,613 cubic yards of CCR. CCR volume is estimated using the bottom of CCR grades shown in this figure.

Bottom of CCR Grades (Soil/CCR Interface) at Ash Pond E (Geosyntec, 2024) Georgia Power Company			
		Project No. GW11718 February 2026	Appendix



**Locations of Instrumentations at or near Ash Pond E Dike
(Geosyntec, 2025)
Georgia Power Company**



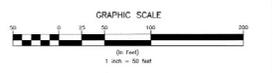
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Piezometer	Easting	Northing	Top Pipe Elevation	Ground Elevation	Description
1	-2220.41	-2370.82	432.51	432.79	PVC Pipe
2	-2278.85	-2428.30	432.60	432.42	PVC Pipe
3	-2254.65	-2421.36	424.72	424.40	PVC Pipe
4	-2182.62	-2438.83	463.37	462.88	PVC Pipe
5	-2080.69	-2448.85	395.28	395.21	T-Steel Pipe
6	-2140.82	-2691.57	455.48	452.59	PVC Pipe
7	-2181.82	-2699.18	375.47	375.15	PVC Pipe
8	-2092.14	-2449.16	309.10	308.79	T-Steel Pipe
9	-2032.85	-2652.34	372.60	372.60	PVC Pipe
10	-1999.01	-2669.56	381.53	379.54	Metal Pipe
11	-2068.65	-2577.86	372.61	368.60	PVC Pipe
12	-2099.01	-2684.44	367.56	366.17	T-Steel Pipe
13	-2010.18	-2681.83	368.14	368.61	PVC Pipe
14	-2068.88	-2514.99	401.05	399.36	PVC Pipe
15	-1938.38	-2647.84	368.51	368.33	PVC Pipe
16	-1918.88	-2687.32	387.86	384.85	PVC Pipe
17	-1908.88	-2684.55	386.23	378.71	PVC Pipe
18	-1938.21	-2618.95	377.35	373.41	PVC Pipe
19	-1923.71	-4929.02	377.87	373.18	PVC Pipe

- References:
- 1) Plant Harllee Branch Ash Pond E Property Plat. GPC Land Dept. map file no. M-3-20. Aug. 29, 1980.
 - 2) Plant Harllee Branch Ash Pond E Topographic Map. GPC Land Dept. map file no. J-50-20. Feb. 1987.
 - 3) Plant Harllee Branch Ash Pond E Dike Plan. SOS map file no. 10-501 E-76. Jan. 12, 1981.
 - 4) Plant Harllee Branch Ash Pond E - Ash Pond Dike. GPC Land Dept. map file no. H-804-6. Sheets 1 & 2 of 2. June 2003.
 - 5) Plant Harllee Branch Ash Pond E - Ash Pond Dike Wave Wall. GPC Land Dept. Map file no. H-942. March 30, 2005.



GEORGIA POWER CO., ATLANTA, GA.
 Land Department
 Plant Harllee Branch Ash Pond E
 Ash Pond E Dike Piezometer Locations
 Plot Sheet
 Fulton County, Georgia
 DATE: _____
 SCALE: _____
 DRAWING NUMBER: H-982-6

CONFIDENTIAL BUSINESS INFORMATION
BRA-API 0026

Plant Harllee Branch Ash Pond E Dike Piezometer Locations
(Sheet H-982-6 dated 5/10/2006)
Georgia Power Company



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