Winyah Generating Station Revised Closure Plan for Ash Ponds A & B

PREPARED BY SOUTH CAROLINA PUBLIC SERVICE AUTHORITY (SANTEE COOPER)

October 30, 2025

Winyah Generating Station
Revised Closure Plan for Ash Ponds A & B

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Appendices

Document Revision No.	Revision Date	Revision Notes
1	10/30/2025	Revised Closure Plan to clarify the adaptive management approach in Section 1.1 and correct a reference to the Class 2 Area 2 Landfill in Section 1.2.

1 Introduction

1.1 Purpose

The Revised Closure Plan for the Winyah Generating Station (WGS) Ash Pond A and Ash Pond B (hereafter, referred to as the "Revised Closure Plan") outlines the process and schedule for the timely and successful closure by removal of the now inactive Winyah Generating Station (WGS) Ash Ponds A & B. The Revised Closure Plan was prepared pursuant to both South Carolina State and Federal coal combustion residual (CCR)-related regulatory requirements, specifically the Federal CCR Rule Title 40 Code of Federal Regulations (40 CFR) § 257.102(b) and South Carolina Department of Environmental Services (SCDES) Regulation SC R.61-82 (Proper Closeout of Wastewater Treatment Facilities).

The intent of this Revised Closure Plan is to supersede prior closure plans provided for WGS Ash Pond A and Ash Pond B. For future Santee Cooper impoundment closure plans, it is Santee Cooper's aim to integrate best practices and learned outcomes using an adaptive management approach from the South Ash Pond and Ash Ponds A and B closure strategy.

1.2 Site Overview

Santee Cooper owns and operates WGS located in Georgetown County, South Carolina (Figure 1). WGS operates four coal-fired units that collectively generate 1,130 megawatts of electricity. The first unit began commercial operation in 1975, and the other three units came online in 1977, 1980, and 1981. WGS generates CCRs during power generation and air quality control process operations. Historically, CCRs were managed in six on-site surface impoundments (Ash Pond A, Ash Pond B, 3&4 Slurry Pond, West Ash Pond, South Ash Pond, and Unit 2 Slurry Pond) and more recently, in the on-site Class 3 Area 1 and Area 2 industrial solid waste landfills. In April 2020, a State Closure Plan for Ash Pond A, Ash Pond B & South Ash Pond (State Plan) was submitted to SCDHEC (known as SCDES since July 1, 2024). On August 18, 2025, a revision to *South Ash Pond* (State Closure Plan), a plan specific to the South Ash Pond, was submitted to SCDES and a revision of that plan (Revised Closure Plan) was submitted on October 10, 2025, which supersedes the State Plan and previously approved State Closure Plan for South Ash Pond. This Revised Closure Plan revision is specific to the surface impoundments known as Ash Pond A and Ash Pond B and supersedes the Closure Plans submitted to SCDES in April 2020 and on October 17, 2025.

Ash Ponds A & B are two CCR units co-located within the same hydrogeologic system. In addition, the Class 3 Area 2 Landfill has been constructed on top of a large percentage of the Ash Pond A area. Accordingly, both

CCR units are being addressed together for groundwater monitoring and are being incorporated into this single closure plan. As detailed in the Geosyntec History of Construction Report – Ash Pond A (Geosyntec, 2016a) and the Geosyntec History of Construction Report – Ash Pond B (Geosyntec, 2016b), Ash Pond A was an approximately 90-acre, unlined CCR surface impoundment connected to Ash Pond B, an approximately 65-acre, unlined CCR surface impoundment. The WGS Class 3, Area 2 Landfill was constructed over the top of approximately 65 acres of Ash Pond A. No additional area will be used for Landfill construction. Ash Ponds A & B dikes were constructed from poorly graded to silty sands (Dike Construction Drawing – Appendix 1). Ash was not used to construct the dikes. These units historically received fly ash, bottom ash, boiler slag, low volume wastewater, decanted sluice water, and industrial stormwater in accordance with WGS facility National Pollutant Discharge Elimination System (NPDES) Permit No. SC0022471. The maximum inventory of CCR ever onsite over the active life of Ash Pond A is estimated to be 2,934,992 cubic yards (3,521,990 tons) and the maximum inventory over the active life of Ash Pond B is estimated to be 1,648,927 cubic yards (1,978,713 tons). As of this writing, approximately 94% of the ash from Ash Pond B has been removed, with 106,000 cubic yards remaining. No visible ash remains in Ash Pond A. Historically, Ash Ponds A & B contained CCR and treated process industrial wastewater and stormwater by removing solids through gravity settling. Ash Pond A discharged to Ash Pond B (Figure 2); Ash Pond B discharged through an internal outfall into the Industrial Cooling Pond by way of the discharge canal. As of April 11, 2021, CCR and CCR wastewater no longer entered Ash Ponds A & B. As there are no industrial wastewater inflows into the pond, only decanted legacy wastewater and stormwater are currently discharged through a riser structure to the discharge canal and/or to the Low Volume Waste Pond (Figure 2). The area beneath the Class 3 Landfill Area 2 Cells 4 and 5 was certified closed on July 23, 2021 (Santee Cooper, 2021a) and the area beneath the Class 3 Landfill Area 2 Cells 6 and 7 was certified closed on May 27, 2022 (Santee Cooper, 2022b).

Groundwater monitoring of Ash Ponds A & B has been ongoing from the 1990's to present day under the State-issued WGS NPDES Facility permit with State groundwater monitoring reports submitted to SCDES (formerly SCDHEC). Ash Ponds A & B are currently regulated under the Federal CCR Rule and the WGS facility NPDES Permit with annual reports available on Santee Cooper's public CCR Rule website since the initial report was published in 2018. Ash Ponds A & B ceased receipt of all CCR waste and wastewater as of April 11, 2021, and closure by removal through excavation of ponded CCR and subsurface soils has been an ongoing operation. In accordance with the Federal CCR Rule 40 CFR § 257.95, Ash Ponds A & B are currently in corrective action. Throughout assessment monitoring of the Ash Ponds A & B, statistically significant levels of arsenic, lithium, and molybdenum have been observed above the groundwater protection standards. Remedial activities were initiated in 2022 and are ongoing (Santee Cooper, 2025).

Geosyntec Consultants (Geosyntec) prepared the initial Federal CCR Rule *Closure WGS Generating Station Ash Pond A Closure Plan* in October 2016 in accordance with the CCR Rule §257.102(b)(2). This Federal CCR Rule Closure Plan was updated by Santee Cooper in October 2019 to incorporate changes in site conditions and update the closure schedule and is available on Santee Cooper's public CCR Rule website. Geosyntec Consultants (Geosyntec) prepared the initial Federal CCR Rule *Closure WGS Generating Station Ash Pond B Closure Plan* in October 2016 in accordance with the CCR Rule §257.102(b)(2). This Federal CCR Rule Closure Plan, available on Santee Cooper's public CCR Rule website, was updated by Santee Cooper in

December 2022 to incorporate changes in site conditions (construction of the Class 3 LF in a portion of the footprint of Ash Pond A) and update the closure schedule. This October 2025 Revised Closure Plan includes all information required for closure under the Federal CCR Rule and State closure requirements and will be posted on Santee Cooper's public CCR Rule website upon approval by SCDES.

2 Geology and Hydrogeology

Regional Geology

Georgetown County is in the Atlantic Coastal Plain physiographic province, which is characterized by Quaternary terrace deposits produced by fluctuating sea levels. Coastal plain sediments are underlain by Tertiary and late Cretaceous sediments to a depth of approximately 2,200 feet below ground surface (BGS) in the Georgetown area. Descriptions of geologic units of interest in the area were provided in a paper by Campbell and Coes, 2010. The thickness of each unit was estimated based on information from several borings referenced in Campbell and Coes (2010). Specifically, these borings include: 1) CHN-0820, which is located approximately 12 miles to the south of WGS, 2) GEO-0088, which is located approximately 7 miles to the southeast of WGS, and 3) GEO-0185, which is located less than 1.5 miles to the northwest of WGS.

General information about the regional geologic units is summarized below, from most recent to oldest:

- **Undifferentiated Quaternary Sediments**: This geologic unit consists of yellowish-brown and reddish orange poorly sorted, very fine to very coarse, clayey sand and gravel. Accessory minerals include opaque heavy minerals, mica, and feldspar. The Undifferentiated Quaternary sediments thickness ranges between 20 and 42 feet in the area.
- **The Williamsburg Formation** (Williamsburg): This geologic unit consists of gray to black interbedded clay and coarse quartz sand overlying shelly clay and calcareous clay. The Williamsburg can include sandy shale, fuller's earth, fossiliferous clayey sand (Lower Bridge Member), and fossiliferous clayey sand and mollusk-rich, bioclastic limestones (Chicora Member). The thickness of the Williamsburg in the vicinity of the site ranges between 30 and 90 feet.
- **The Lang Syne Formation**: As described in the literature by Muthig and Colquhoun (1988), this geologic unit consists of red and yellow (where weathered) or white, gray, and black (where freshly exposed) interbedded sand, silt, and clay and thin beds of silicified shell debris. Opaline clay stone is the most characteristic lithology of the Lang Syne Formation.
- **The Rhems Formation**: This geologic unit consists of light gray to black shale interlaminated with thin seams of fine-grained sand and mica.
- **The Peedee Formation**: This geologic unit consists of a dark green to gray, fossiliferous, glauconitic clayey sand and silt. The combined thickness of the Lang Syne, Rhems, and Peedee Formations ranges between 185 and 378 feet in the vicinity of WGS.

Additional late Cretaceous Formations are present to a depth of approximately 2,200 feet below ground surface in the area. These formations, in descending order, include: Donoho Creek, Bladen, Coachman, Cane Acre, Caddin, Sheppard Grove, Pleasant Creek, Cape Fear, and undifferentiated Cretaceous sediments.

Foundation Soils

Soil test borings and Cone Penetrometer Test soundings (Geosyntec, 2016c) within the vicinity of the Ash Ponds A & B perimeter dikes were evaluated. Foundation materials were observed to be variable across the footprint of Ash Ponds A & B but consisted primarily of poorly graded to silty sands with shells and a few isolated seams of clayey sand to high plasticity clay. In isolated areas, the foundation materials were relatively poorly graded clean sands (less than 20 percent [%] fines). The poorly graded and silty sands were composed typically of 58% to 90% sand sized material with 5% to 30% fines (Geosyntec, 2016c). Some samples described historically as "shell hash" contained predominantly shells and fine gravel constituting 5 to 24% of the sample by weight (Geosyntec, 2016c).

Site Hydrogeology

The aquifers of most interest at this site are the surficial aquifer and Gordon Aquifer. The surficial aquifer is the water table aquifer and consists mainly of terrace sediments that were deposited during transgressions and regressions of a post-Miocene Sea. The surficial aquifer is lithologically heterogeneous but generally consists of quartz gravel and sand, silt, clay, and shelly sand and unconformably overlies the Gordon aquifer, which is the lowermost aquifer of the Floridan Aquifer system. The Gordon Aquifer represents the permeable portion of the Williamsburg Formation (upper Chicora Member) in the vicinity of the site. As detailed in the Site Hydrogeologic Characterization Study Report (Geosyntec, 2016d), the surficial aquifer and Gordon Aquifer exhibit similar hydrogeologic properties and may not be separated uniformly hydrogeologically. Therefore, occasionally, the Gordon Aquifer and surficial aquifer are collectively termed the surficial aquifer (Geosyntec, 2016d). Historical groundwater elevation measurements in the surficial aquifer at the site were influenced by the water levels (i.e., hydraulic head) in the slurry ponds and ash ponds. In recent years, the Class 3 Landfills Area 1 and Area 2 have been constructed over the former impoundments Unit 2 Slurry Pond and Ash Pond A, respectively. The landfills have been constructed with impermeable liners that will prevent recharge in these areas.

3 Closure by Removal Sequencing

Closure By Removal Approach

The methodology of closure by removal is being implemented to meet the Federal and State closure requirements. As of mid-October 2025, all visual CCRs from Ash Pond A have been either beneficially used or disposed of in the adjacent on-site Class 3 Landfills and 94% of the ash from Ash Pond B has been removed, with 106,000 cubic yards remaining. WGS converted to dry bottom ash and fly ash handling in 2018 and all CCR and wastewaters were no longer sluiced to Ash Ponds A & B as of April 11, 2021.

The general procedure for CCR removal and Ash Ponds A & B closure and post-closure activities is described as follows:

1. All CCR and wastewater streams previously pumped to Ash Ponds A & B were either converted to dry ash handling, re-routed, or eliminated by April 11, 2021.

2. Ash Ponds A & B were decanted, and will continue to be decanted, throughout the closure process by a series of variable internal drainage ditches and sock drains within the pond to direct the legacy wastewater and stormwater towards the Ash Ponds A & B outfall. The legacy wastewater and stormwater are then pumped to the Industrial Cooling Pond via the discharge canal and/or the Low Volume Waste Pond. Continual decanting operations are anticipated throughout the duration of closure to minimize the amount of free water present within the CCR impoundment to maintain conditions suitable for excavation.

3. The CCRs and subsurface soils were, and will be, dewatered further within Ash Ponds A & B using stacking and gravity decanting to remove free water until the material can pass United States Environmental Protection Agency (EPA) Method 9095B (paint filter test). All CCR waste and subsurface soil that will be hauled to the on-site Class 3 Landfill or other permitted landfill must first pass this test. As of mid-October, approximately 106,000 cubic yards of ash and 85,000 cubic yards of subsurface soils remain to be removed.

4. All visual CCR material is being excavated using conventional equipment (e.g., track hoes). Prior to the start of CCR excavation, the base grades of the WGS CCR ponds were estimated by Geosyntec as detailed in the Winyah Pond Bottom Estimate Memorandum from June 6, 2014 (Appendix 2). CCR material intended for beneficial use has been excavated and placed in temporary storage piles within the confines of Ash Ponds A & B. The material was then loaded in semi-trucks for transportation. All ash transported from the station was covered to prevent discharge. The CCR material was weighed and recorded on certified scales prior to leaving the station. CCR material that has not been beneficially used due to customer demand, material quality, or regulatory time constraints is being landfilled by placement in off-road trucks and hauled to and compacted in the on-site Class 3 Landfills.

5. A topographic survey of the footprint was conducted by licensed surveyors to document the pond bottom elevations (Figure 3). Upon removal of all visual CCRs from the pond, the survey will be updated to document the final pond bottom elevations.

6. A minimum of 6 inches of subsurface soil will be excavated and removed from the pond footprint, including to the top of the inside slope of the dikes. CCR removal will be verified through microscopy and subsurface soil will be analyzed for informational purposes as detailed in the Pond Base Verification Soil Sampling section below. CCR removal verification and soil analysis may be performed in phases to facilitate construction and/or water management, as necessary.

7. To verify site elevations after subsurface soil removal, a topographic survey of the footprint will be performed by licensed surveyors and submitted to SCDES. This survey may be performed in phases to facilitate construction and/or water management, as necessary.

8. After the CCR and subsurface soil have been removed, Santee Cooper will obtain SCDES closure pursuant to South Carolina Regulation R.61-82 (Proper Closeout of Wastewater Treatment Facilities). Santee Cooper will certify closure is complete under the Federal CCR Rule requirements. Groundwater monitoring will continue until Groundwater Protection Standards are met under the CCR Rule. Section 5 of this Revised Closure Plan contains additional groundwater monitoring details.

9. After closure is certified, the pond dikes will be lowered and the dike material used to partially fill the pond excavation areas to provide positive drainage. The area will be graded as required to provide positive drainage and to allow maintenance access and will be permanently seeded. Fill soil requirements are detailed in the Fill Soil Qualification Sampling section below. A stormwater detention pond(s) may be located within a portion of the closed pond footprint in order to attenuate stormwater runoff to existing levels after closure is complete.

10. The pond dikes will be breached. Erosion and sediment controls will be installed where required to ensure non-contact construction stormwater is controlled in a manner to prevent erosion and sedimentation in areas surrounding the pond. Appropriate stormwater construction and other water permits will be obtained or modified as needed prior to breaching the dikes or disturbing areas outside the limits of the A & B Ponds.

Pond Base Verification Soil Sampling

Any need for additional soil removal beyond the minimum of 6 inches will be determined by visual methods and confirmed using microscopy for soil decontamination. Microscopy will be performed by a degreed professional with experience in microscopic analysis and certified under the supervision of a third-party qualified professional engineer. One core sample per acre will be collected throughout the pond bottom and interior dikes to a depth of 12 inches using a decontaminated stainless steel hand auger to verify no observations of residual ash by a third-party laboratory through microscopic observation of fly ash cenospheres. If cenospheres are present after collection and analysis of a confirmation sample, a second confirmatory sample will be obtained, and delineation samples will be collected vertically 6 inches below the confirmatory sample and laterally 25 feet in four directions from the original sample. Additional soil will be removed in this area as necessary until no cenospheres are detected. This sampling and verification may be performed in phases to facilitate construction and/or water management, as necessary.

To further assess baseline information after excavation is completed, one 12 inch core sample will be collected from the pond bottom every 10 acres to be analyzed for antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium using EPA Methods 6020B, 7471B, 9056A, and 6010D for a total of 9 samples for Ash Ponds A & B. Laboratory analyses will be conducted by a South Carolina-certified laboratory under standard chain-of-custody procedures. These confirmation samples will be collected and evaluated in consideration of the long-term monitoring and

stewardship requirements of the site. Pond closure and post-closure activities, including dike breaching and removal, may continue while these samples are being analyzed, and the sampling and analysis may be performed in phases to facilitate construction and/or water management, as necessary.

Fill Soil Qualification Sampling

As noted above, the pond dike material will be used to partially fill the pond excavation areas. As shown in the Dike Construction Drawing provided in Appendix 1, the Ash Ponds A & B dikes were constructed using medium dense to very dense, poorly graded to silty sands. The dikes were used as haul roads while Ash Ponds A & B were in use and will continue to be used for pond closure. Santee Cooper will collect one soil sample approximately every 500 linear feet to a depth of 12 inches for confirmation of ash removal along the haul road at the top of the dikes using a decontaminated stainless steel hand auger. The soil sample will be analyzed using the same microscopy methodology described above for Pond Base Verification Soil Sampling. In addition, samples will be collected from the interior and exterior dike walls approximately every 500 linear feet near the bottom, mid-point, and top of the dike. These dike soil samples will be collected at a depth of 6 to 12 inches and 36 to 42 inches, for a total of 12 samples every 500 linear feet, and composited for analysis of antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium using EPA Methods 6020B, 7471B, 9056A, and 6010D. Laboratory analyses will be conducted by a South Carolina-certified laboratory under standard chain-of-custody procedures. These confirmation samples will be collected and evaluated in consideration of the long-term monitoring and stewardship requirements of the site. Pond closure and post-closure activities, including dike breaching and removal, may continue while these samples are being analyzed, and the sampling and analysis may be performed in phases to facilitate construction and/or water management, as necessary.

Any fill material imported from off-site locations will be sampled for analysis of antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium using EPA Methods 6020B, 7471B, 9056A, and 6010D. Laboratory analyses will be conducted by a South Carolina-certified laboratory under standard chain-of-custody procedures. Results will be submitted to SCDES for approval prior to bringing soils on-site.

4 Schedule

The schedule for completing all activities required to close Ash Ponds A & B are detailed below. These dates are approximate and provided to convey the overall sequence and scope of closure activities and to demonstrate their approximate duration. Activities may commence and/or complete earlier or later than shown.

Activity	Anticipated Schedule
Intensification of decanting (increased pumping) and dewatering activities (installation of sock drain)	April 2021 (Completed)
Final receipt of CCR	April 11, 2021 (completed)
Submit Ash Ponds A & B Revised Closure Plan to SCDES for approval	October 2025
Obtain SCDES approval for Revised Closure Plan	October 2025
CCR removal for beneficial use and landfill disposal	April 2021 – December 2025
Completion of physical closure by removal for Ash Ponds A & B and fill soil qualification sampling	March 2026
Submit notification of closure completion to SCDES for approval and request SCDES closure inspection	March 2026
Obtain SCDES approval of Revised Closure Plan requirements	March 2026
Post-Closure Activities for Ash Ponds A & B (dike leveling, additional grading and construction, dike breaching, groundwater monitoring, etc.)	April 2026 – TBD

5 Post-Closure Activities

Post-closure activities include dike leveling, grading, dike breaching, and groundwater monitoring. Groundwater monitoring associated with the Ash Ponds A & B is currently and will continue to be performed in accordance with the facility NPDES permit and the Federal CCR Rule Groundwater Monitoring Plan. Monitoring well locations are noted on Figure 4. Ash Ponds A & B are currently in corrective action, with groundwater monitoring on a semiannual schedule for Appendix IV constituents. Once Ash Ponds A & B are closed and certified closed pursuant to the Federal CCR Rule, groundwater monitoring will continue until Groundwater Protection Standards are met under the CCR Rule. At that time, Santee Cooper will limit

future groundwater monitoring to constituents cited in the NPDES permit or otherwise deemed necessary by SCDES until all SCDES requirements are met.

6 References

1. Campbell, B.G., and Coes, A.L., eds., 2010. *Groundwater availability in the Atlantic Coastal Plain of North and South Carolina: U.S. Geological Survey Professional Paper 1773.*
2. Muthig, M.G., and Colquhoun, D.J., 1988. *Formal recognition of two members within the Rhems Formation in Calhoun County, South Carolina: South Carolina Geology v. 32, nos. 1-2.*
3. Geosyntec Consultants, June 2014. *Memorandum – Pond Bottom Estimate, Winyah Generating Station. Georgetown, South Carolina.*
4. South Carolina Public Service Authority (Santee Cooper), October 2019. *Winyah Ash Pond A Closure plan, Georgetown, South Carolina.*
5. South Carolina Public Service Authority (Santee Cooper), December 2022a, *WGS Generating Station Ash Pond B Closure plan. Georgetown, South Carolina.*
6. Geosyntec Consultants, October 2016a. *History of Construction Report – Ash Pond A, Winyah Generation Station.*
7. Geosyntec Consultants, October 2016b. *History of Construction Report – Ash Pond B, Winyah Generation Station.*
8. Geosyntec Consultants, 2016c. 2016 Surface Impoundment Periodic Safety Factor Assessment Report: Ash Pond B, *Winyah Generation Station, Georgetown, South Carolina. Project Number GSC5242.*
9. South Carolina Public Service Authority (Santee Cooper), October 2020a. *Winyah Generating Station Ash Ponds –Ash Pond A Bottom of Ash Surface.*
10. South Carolina Public Service Authority (Santee Cooper), September 2020b. *Winyah Generating Station Ash Ponds – Ash Pond B Bottom of Ash Surface.*
11. South Carolina Public Service Authority (Santee Cooper), September 2020c. *Winyah Generating Station Ash Ponds –Ash Pond A Post-Soil Removal Surface.*
12. South Carolina Public Service Authority (Santee Cooper), September 2020d. *Winyah Generating Station Ash Ponds – Ash Pond B Post-Soil Removal Surface.*
13. South Carolina Department of Health and Environmental Control, May 2024. *National Pollutant Discharge Elimination System Permit – Permit No. SC0022471.*
14. South Carolina Public Service Authority (Santee Cooper), July 2021a. *Winyah Ash Pond A Survey Transmittal.*
15. South Carolina Public Service Authority (Santee Cooper), May 2022b. *Winyah Ash Pond A Survey Transmittal.*
16. South Carolina Public Service Authority (Santee Cooper), May 2021b. *Winyah Generating Station State Closure Plan for Slurry Pond 3 &4.*
17. South Carolina Public Service Authority (Santee Cooper), May 2023. *Winyah Generating Station State Closure Plan for Ash Pond A – Outside Landfill Addendum.*

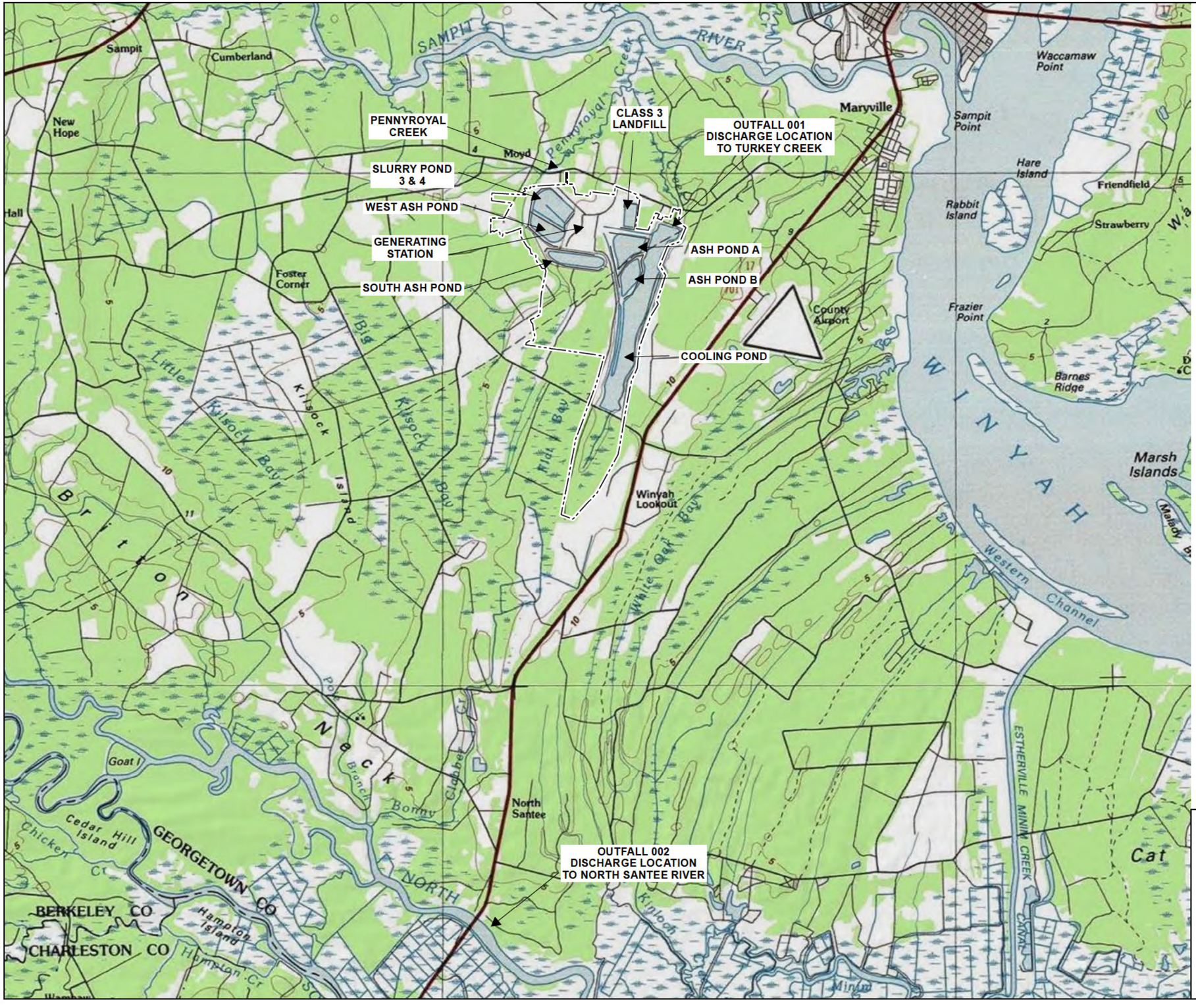
18. South Carolina Public Service Authority (Santee Cooper), January 2025, *2024 Annual Groundwater Monitoring and Corrective Action Report Ash ponds A and B, Winyah Generation Station, Moncks Corner, South Carolina*.
19. Geosyntec Consultants, August 2016d. *Site Hydrogeologic Characterization Report– Winyah Generation Station*.

7 Certification

I, Brian H. Holmes, being a registered Professional Engineer in the State of South Carolina, do hereby certify to the best of my knowledge, information, and belief that the information contained in this Winyah Generating Station Revised Closure Plan for Ash Ponds A & B dated October 30, 2025 was developed pursuant to the requirements of 40 CFR 257.102 and has been prepared with recognized and generally accepted good engineering practices.

Signature

Date 10/30/25



LEGEND

CCR UNIT BOUNDARY

PROPERTY BOUNDARY

<BOL>NOTES</BOL>

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

2. AERIAL IMAGERY SOURCE: ESRI & USGS

N

0 6,250 12,500

SCALE IN FEET

SANTEE COOPER
WINYAH GENERATING STATION
GEORGETOWN, SOUTH CAROLINA

FIGURE 1 SITE MAP

OCTOBER 2020

FIGURE 1

FIGURE 2

STORMWATER DRAINAGE BASIN

- COAL FIRE STEAM PLANT
- LANDFILL
- COAL PILE
- SW OUTFALL 002
- SW OUTFALL 003
- CEMENT MANUFACTURING

CAROLINA GRID NORTH (NAD83) — PLANT NORTH

STORMWATER PUMP TO SLURRY POND
FLOATING TO PUMP STATION #1 PUMP
SWEO-02
UNIT 3&4 SLURRY POND
SWEO-01
STORMWATER POND
PUMP WITH UNIT 3 & 4 COOLING TOWER BLOWDOWN TO W LVW POND
WEST POND DRAINS TO UNIT 3&4 SLURRY POND
WEST ASH POND
NOTE:POND IS NOW COVERED
002 SW
003 SW
WEST LOW VOLUME WASTE (W LVW) POND
STORMWATER PUMP TO SOUTH ASH POND
SOUTH ASH POND
COAL PILE
RAIL CAR REPAIR FACILITY
COAL CAR DUMPER
GUARD HOUSE
AMERICAN GYPSUM
SWITCHYARD
UNIT 4
UNIT 3
UNIT 2
UNIT 1
STORES MAINTANANCE FACILITY
GYPSUM PROCESS BLDG.
GYP STACKOUT BLDG.
COOLING POND DISCHARGE CANAL
AMMONIA STORAGE
OIL/WATER SEPARATOR HEAVY EQUIP
COAL YARD SERVICE BUILDING
OVERFLOW TO DISCHARGE CANAL (PIPED TO OVERFLOW INLET BOX)
SOUTHEAST LOW VOLUME WASTE (SE LVW) POND
LANDFILL
LEACHATE COLLECTION INTERIOR
LEACHATE PUMP (TYP - PUMP TO INTAKE CANAL)
INTAKE CANAL
UNIT 2 COOLING TOWER
"A" ASH POND
"B" ASH POND
OVERFLOW INLET BOX (DRAINS TO DISCHARGE CANAL AFTER RECEIVING FLOW FROM SOUTH ASH POND, EMERGENCY SPILLWAY FOR DITCH SYSTEM, AND PUMPED OUTFLOW FROM SE LVW POND)
SE LVW POND EMERGENCY OVERFLOW TO DISCHARGE CANAL
PUMP WITH LVW TO OVERFLOW INLET BOX

NOTES:

1. THIS DRAWING SUPERCEDES SANTEE COOPER DRAWING NO. 5846-F09-0001 REV. 0, DATED JULY 23, 1996, 5846-F09-0002 THRU 0003, REV. 0 DATED JUNE 11, 1996
2. TOTAL STATION AREA = 7,359.50 ACRES TOTAL IMPERVIOUS AREA = 50.16 ACRES INDUSTRIAL AREA EXPOSED TO STORM WATER =538 ACRES
3. SPILL LOCATIONS ARE NOTED IN THE STORM WATER PLAN AND IN ANNUAL COMPREHENSIVE SITE INSPECTION REPORTS.

LEGEND

- STORMWATER CATCHBASIN
- STORMWATER MANHOLE
- STORMWATER FLOW DIRECTION
- STORMWATER PUMP STATION

Attached Xref:
site master-wgs.dwg
site topo.dwg
systems.dwg

Attached Image:

0' 300' 600' 1200'
SCALE: 1"=300' FEET

REV.	DATE	DESCRIPTION	SUPV.	ENG.	DESIG
6	09/12/25	REVISED FOR ELG PROJECT			
5	11/5/2022	REVISED FOR ELG PROJECT	JWC	JGH	
4	12/2018	REVISED FLOW	SWJ	JGH	SRW
3	11/10/16	Added Used Oil Tank	JGH	LBF	LBF
2	2/7/14	ADDED SEFA INSTALLATION (ZONE G-9)	SWJ	LNB	WFH
1	8/1/11	UPDATED PLANT OUTLINE	SWJ	MGD	WFH

Santee Cooper
SOUTH CAROLINA PUBLIC SERVICE AUTHORITY

ENVIRONMENTAL SERVICES

SUPV. ENG.:	DATE:	SCALE:
S.W. JACKSON	7/20/11	1"=300'
DESIGN ENG.: M.G. DUPRE	PROJ. NO.	DWG. SIZE: D
DESIGNER: W.F. HUBER		

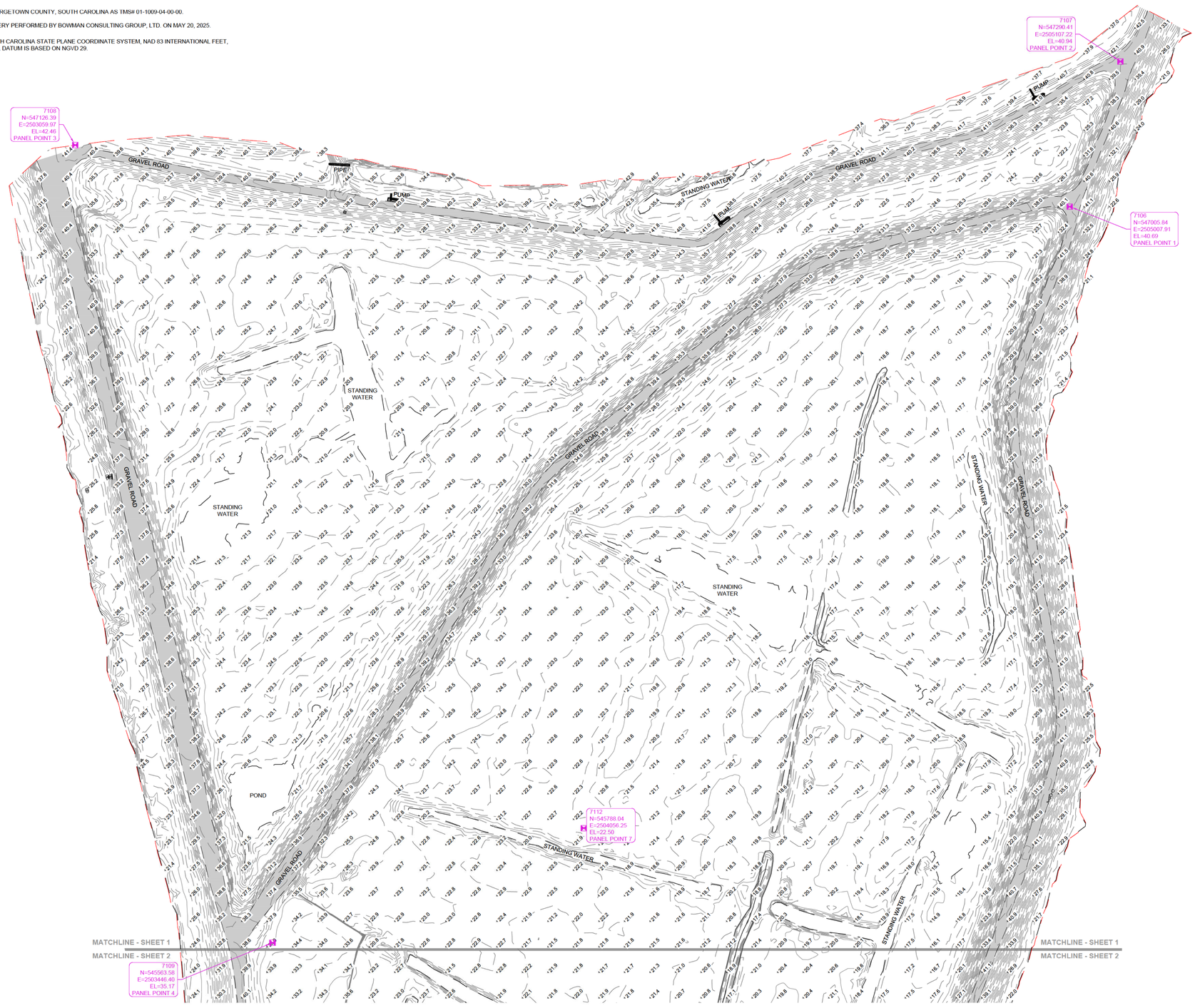
WINYAH GENERATING STATION

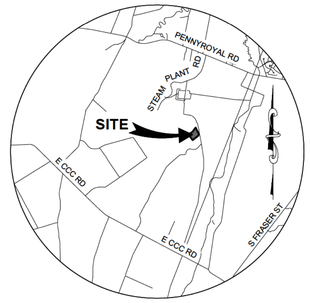
STORM WATER POLLUTION PREVENTION PLAN
DRAINAGE ZONES & OUTFALLS

DRAWING. NO.: WO-000-10-C0001 | SHEET: 2 OF 3 | REV.: 6

NOTES

1. THE SURVEYED PROPERTY DELINEATED HEREON ARE LOCATED IN GEORGETOWN COUNTY, SOUTH CAROLINA AS TMS# 01-1009-04-00-00.
2. INFORMATION SHOWN HEREON IS BASED ON A LIDAR FLIGHT AND IMAGERY PERFORMED BY BOWMAN CONSULTING GROUP, LTD. ON MAY 20, 2025.
3. NORTH MERIDIAN INFORMATION AS SHOWN HEREON IS BASED ON SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM, NAD 83 INTERNATIONAL FEET, DISTANCES SHOWN ARE HORIZONTAL "GROUND DISTANCES". VERTICAL DATUM IS BASED ON NGVD 29.
4. CONTOUR INTERVALS ARE 1 FOOT.





VICINITY MAP
SCALE: NTS

LEGEND

- TOPOGRAPHIC LIMITS
- 10 INDEX CONTOUR
- 9 INTERMEDIATE CONTOUR
- EDGE OF WATER
- GRAVEL ROAD
- PNP LIDAR CONTROL POINT

100 0 100 200
GRAPHIC SCALE

I HEREBY STATE THAT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION, AND BELIEF, THE SURVEY SHOWN HEREIN WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARDS OF PRACTICE MANUAL FOR SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS AS SPECIFIED THEREIN.

JOHN RHETT FRAZIER IV
SOUTH CAROLINA PROFESSIONAL LAND SURVEYOR
LICENSE NO. 43381

SOUTH CAROLINA — BOWMAN CONSULTING GROUP LTD NO. 4523 — CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL LAND SURVEYOR — No. 43381 — JOHN RHETT FRAZIER IV

TOPOGRAPHIC SURVEY OF
WGS A & B PONDS
PROPERTY OWNED BY
S.C. PUBLIC SERVICE AUTHORITY
TMS #01-1009-04-00-00
GEORGETOWN COUNTY, SOUTH CAROLINA

SCALE: 1" = 100' DATE: JUNE 18, 2025

REVISION

Bowman
Bowman Consulting Group Ltd
880 Island Park Drive, Suite 400
Charleston, SC 29492
Phone (843) 501-0333
www.bowman.com

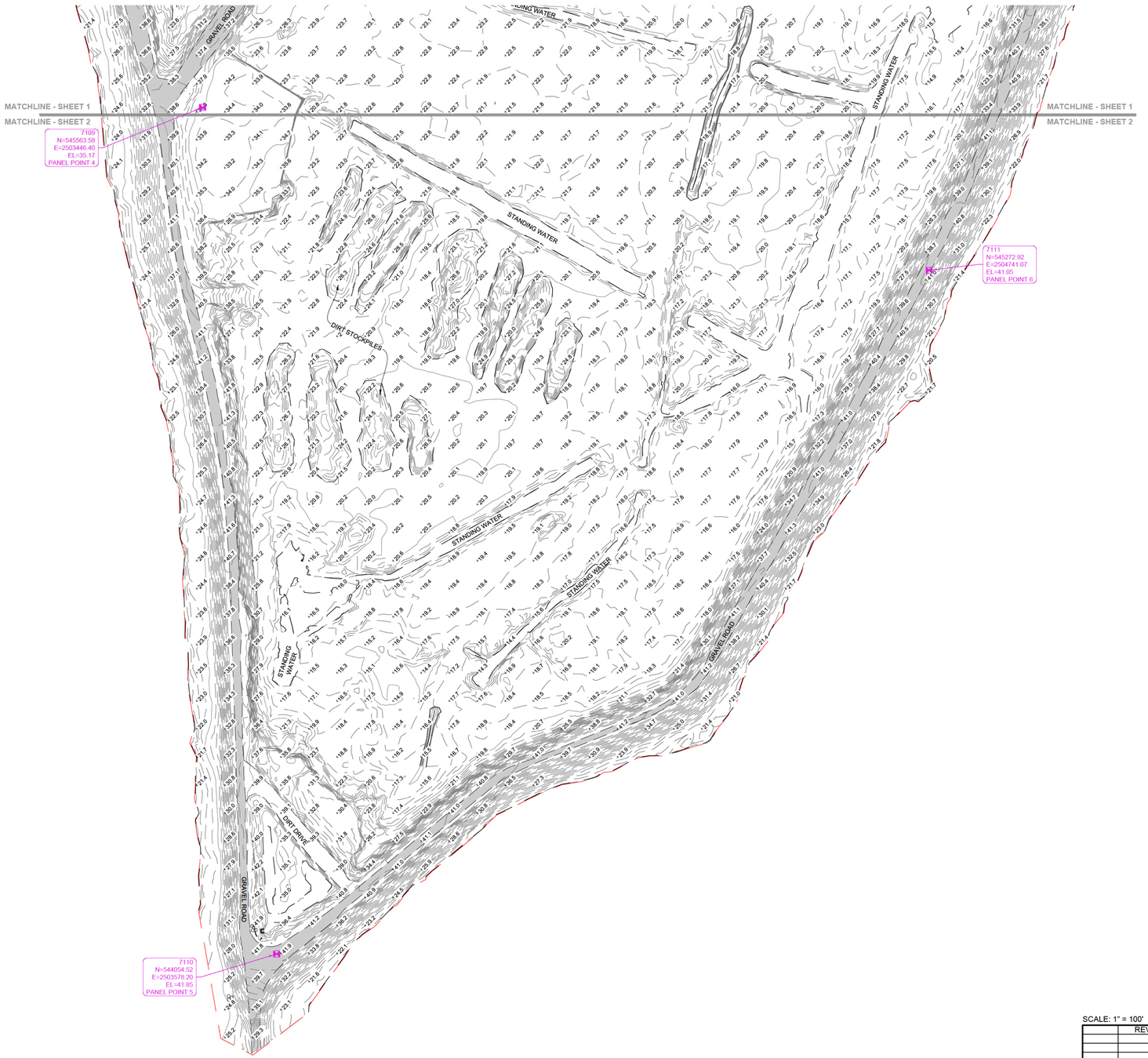
DWG: V:\003040 - Santee Cooper\003040-01-005 (SUR) - Winyah Landfills Closure Cert\Survey\Topo Boundary\WGS A&B Ponds\003040-01-005 WGS A&B Ponds | BY: JA | CHK: DF | QC:

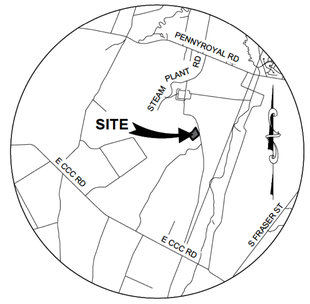
BCG PROJECT NO: #003040-01-005 | TASK: 00001 | SURVEY DATE: MAY 20, 2025 | SHEET 1 OF 2

FIGURE 3

NOTES

1. THE SURVEYED PROPERTY DELINEATED HEREON ARE LOCATED IN GEORGETOWN COUNTY, SOUTH CAROLINA AS TMS# 01-1009-04-00-00.
2. INFORMATION SHOWN HEREON IS BASED ON A LIDAR FLIGHT AND IMAGERY PERFORMED BY BOWMAN CONSULTING GROUP, LTD. ON MAY 20, 2025.
3. NORTH MERIDIAN INFORMATION AS SHOWN HEREON IS BASED ON SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM, NAD 83 INTERNATIONAL FEET, DISTANCES SHOWN ARE HORIZONTAL "GROUND DISTANCES". VERTICAL DATUM IS BASED ON NGVD 29.
4. CONTOUR INTERVALS ARE 1 FOOT.





VICINITY MAP
SCALE: NTS

LEGEND

- TOPOGRAPHIC LIMITS
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- EDGE OF WATER
- GRAVEL ROAD
- PNP LIDAR CONTROL POINT

100 0 100 200
GRAPHIC SCALE

I HEREBY STATE THAT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION, AND BELIEF, THE SURVEY SHOWN HEREIN WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARDS OF PRACTICE MANUAL FOR SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS AS SPECIFIED THEREIN.

JOHN RHETT FRAZIER IV
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LICENSE NO. 43381

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SOUTH CAROLINA — PROFESSIONAL LAND SURVEYOR — No. 43381 — JOHN RHETT FRAZIER IV

TOPOGRAPHIC SURVEY OF
WGS A & B PONDS
PROPERTY OWNED BY
S.C. PUBLIC SERVICE AUTHORITY
TMS #01-1009-04-00-00
GEORGETOWN COUNTY, SOUTH CAROLINA

SCALE: 1" = 100' DATE: JUNE 18, 2025

REVISION

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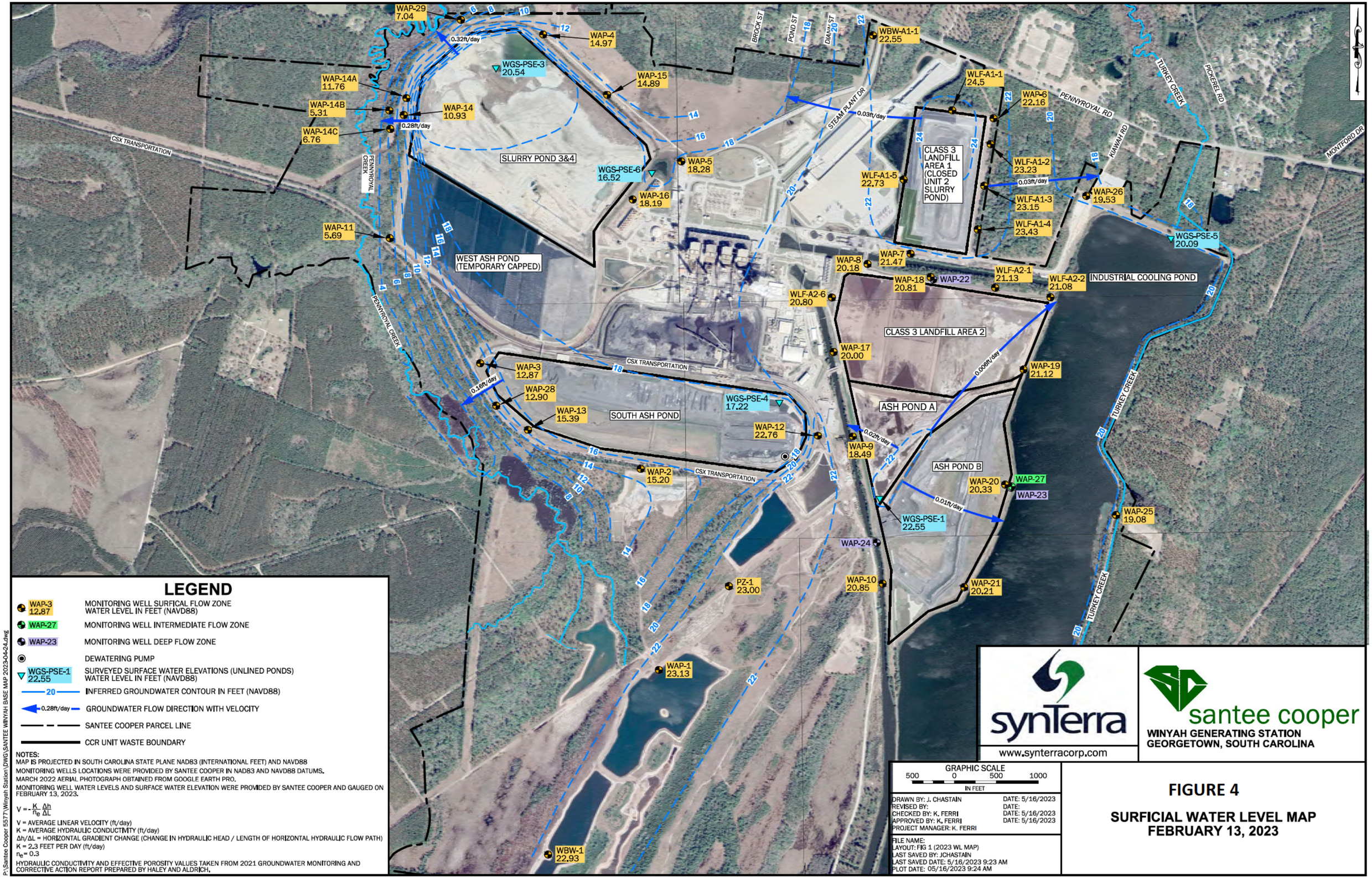
Phone (843) 501-0333
www.bowman.com

DWG: V:\003040 - Santee Cooper\003040\7-005 (SUR) - Winyah Landfill\e Closure Cert\Survey\Topo Boundary\WGS A&B Ponds\003040\7-005 WGS A&B Ponds			BY: JA	CHK: DF QC:
BCG PROJECT NO: #003040-01-005	TASK: 00001	SURVEY DATE: MAY 20, 2025		SHEET 2 OF 2



LEGEND

WAP-3 12.87	MONITORING WELL SURFICAL FLOW ZONE WATER LEVEL IN FEET (NAVD88)
WAP-27	MONITORING WELL INTERMEDIATE FLOW ZONE
WAP-23	MONITORING WELL DEEP FLOW ZONE
	DEWATERING PUMP
WGS-PSE-1 22.55	SURVEYED SURFACE WATER ELEVATIONS (UNLINED PONDS) WATER LEVEL IN FEET (NAVD88)
20	INFERRED GROUNDWATER CONTOUR IN FEET (NAVD88)
0.28ft/day	GROUNDWATER FLOW DIRECTION WITH VELOCITY
	SANTEE COOPER PARCEL LINE
	CCR UNIT WASTE BOUNDARY

NOTES:
MAP IS PROJECTED IN SOUTH CAROLINA STATE PLANE NAD83 (INTERNATIONAL FEET) AND NAVD88
MONITORING WELLS LOCATIONS WERE PROVIDED BY SANTEE COOPER IN NAD83 AND NAVD88 DATUMS.
MARCH 2022 AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH PRO.
MONITORING WELL WATER LEVELS AND SURFACE WATER ELEVATION WERE PROVIDED BY SANTEE COOPER AND GAUGED ON FEBRUARY 13, 2023.

$$V = -\frac{K}{n_e}\frac{\Delta h}{\Delta L}$$

V = AVERAGE LINEAR VELOCITY (ft/day)
K = AVERAGE HYDRAULIC CONDUCTIVITY (ft/day)
$\Delta h/\Delta L$ = HORIZONTAL GRADIENT CHANGE (CHANGE IN HYDRAULIC HEAD / LENGTH OF HORIZONTAL HYDRAULIC FLOW PATH)
K = 2.3 FEET PER DAY (ft/day)
n_e = 0.3
HYDRAULIC CONDUCTIVITY AND EFFECTIVE POROSITY VALUES TAKEN FROM 2021 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT PREPARED BY HALEY AND ALDRICH.

synTerra
www.synterracorp.com

santee cooper
WINYAH GENERATING STATION
GEORGETOWN, SOUTH CAROLINA

GRAPHIC SCALE
500 0 500 1000
IN FEET

DRAWN BY: J. CHASTAIN	DATE: 5/16/2023
REVISED BY:	DATE:
CHECKED BY: K. FERRI	DATE: 5/16/2023
APPROVED BY: K. FERRI	DATE: 5/16/2023
PROJECT MANAGER: K. FERRI	

FILE NAME:
LAYOUT: FIG 1 (2023 WL MAP)
LAST SAVED BY: JCHASTAIN
LAST SAVED DATE: 5/16/2023 9:23 AM
PLOT DATE: 05/16/2023 9:24 AM

FIGURE 4

SURFICIAL WATER LEVEL MAP
FEBRUARY 13, 2023

P:\Santee Cooper 5577\Winyah Station\DWG\SANTEE WINYAH BASE MAP 2023-04-24.dwg

APPENDIX 1

DETAIL OF EMERGENCY OVERFLOW
IN ASH POND DIKE I
NO SCALE
TOP OF DIKE
PLANT SERVICE DRIVE
INTAKE STRUCTURE
INTAKE
CANAL (EXIST.)
ASH DISPOSAL POND I
WATER SURFACE ELEVATION 32.0
ASH DISPOSAL POND II
DISCHARGE
LIMIT OF CLEARING
CANAL
COOLING
POND
LIMIT OF CLEARING
DRAINAGE DITCH
EXISTING BRIDGE
EXISTING GRADE
IMPROVED GRADE LINE
DETAIL OF CHANNEL IMPROVEMENTS AT
EXISTING TURKEY CREEK BRIDGE
LOOKING NORTH
NO SCALE
THIS DRAWING FOR LOCATION
OF CLEARING LIMIT ONLY
NOTE:
BURNS AND ROE, INC.
ENGINEERS AND CONSTRUCTORS
LOCKWOOD GREENE
ARCHITECTS · ENGINEERS
SPARTANBURG, S.C.
CLEARING LIMIT
SOUTH CAROLINA PUBLIC SERVICE AUTHORITY
GEORGETOWN GENERATING STATION
GEORGETOWN SOUTH CAROLINA
1"=300'
CV-531

GENERAL NOTES

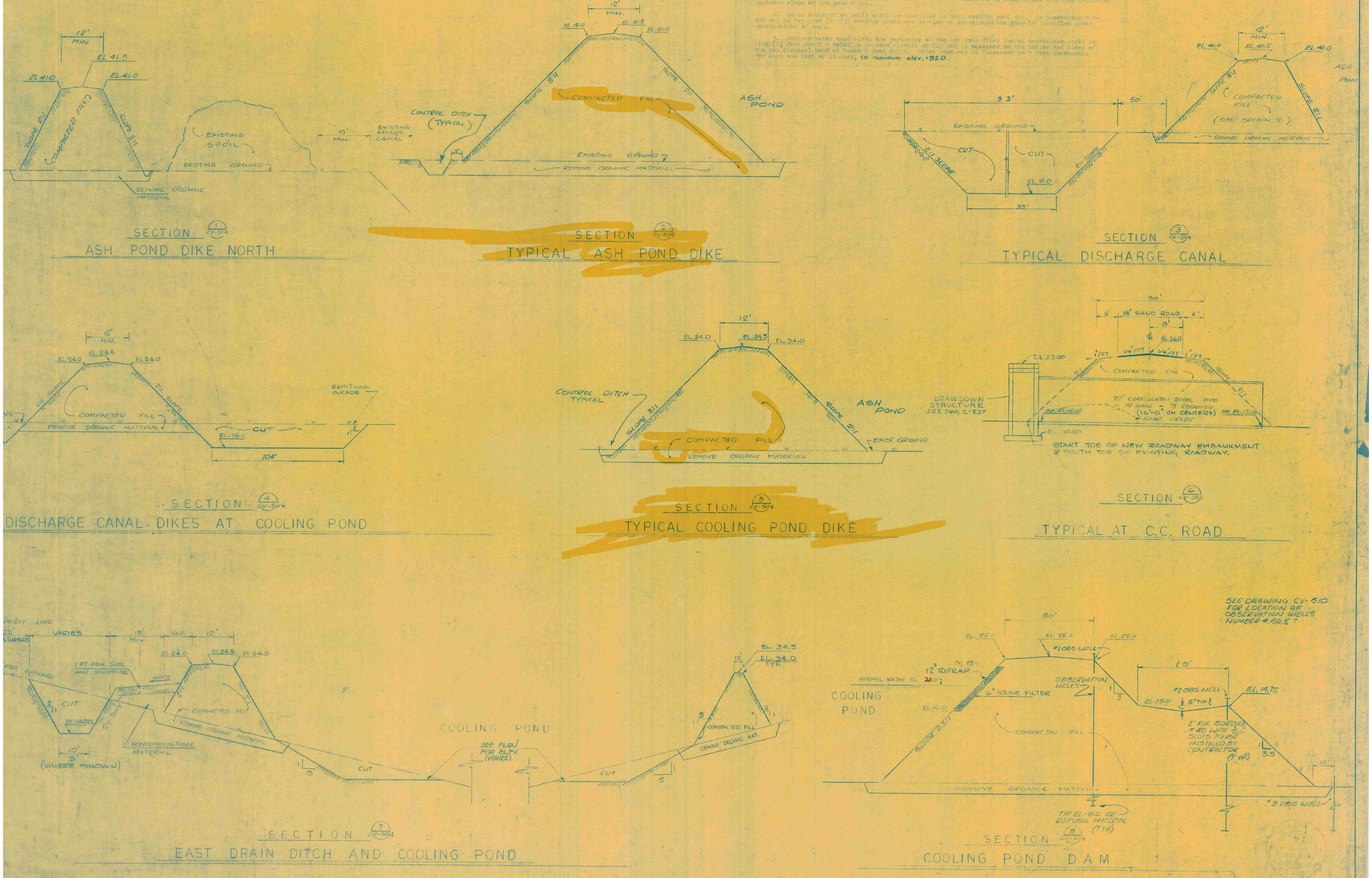
1. All borrow excavation for construction of ash pond and cooling pond dikes and cooling pond dam shall be approved by the Engineers.

2. Drainage ditches shall be constructed at downstream toe of all dikes to permit control of rainwater runoff. Ditches shall be protected by seeding and mulching.

3. All exposed slopes shall be protected as soon as possible by seeding and mulching including upstream slope of ash pond dikes.

4. Seven observation wells shall be installed in main cooling pond dam. An impervious cut-off may be required if high seepage pressures develop at downstream toe (may be installed after construction of dam).

5. Maximum water head along the perimeter of the ash pond dikes during operations shall be five (5) feet until a relative uniform blanket of fly ash is obtained on the bottom and sides of the ash disposal pond at least 2 foot thick. Water head may be increased in 3 foot increments for each one foot of blanket, to maximum elev. +32.0.



BURNS AND ROE, INC.
ENGINEERS AND CONSTRUCTORS
ORADELL, N.J. HEMPSTEAD, N.Y. LOS ANGELES, CALIF.

Revision	by	ck.	appr.	no.	date	Revision	
FOR CONSTRUCTION S-2862-	E.H.D.	W.K.D.		10	4-28-75	REVISED AS BUILT	
REVISION	E.H.D.			9	10/17/73	REVISED DETAILS	S.K.
STRIPPING & GRADING WORK ONLY	E.K.	W.K.D.		8	10/15/73	ADDED DRAWDOWN STRUCTURE	W.E.C.
CLEARING & SURVEY ONLY	E.K.			7	8/4/73	REVISED DITCH SECTIONS	S.M.
BIDS ON CONTRACT #B-2862-C2	C.T.	F.K.		6	7/2/73	REVISED COOLING POND DAM & GENERAL	S.M.
REVISION	by	ck.	appr.	5	5/4/73	REVISED COOLING POND DIKE	S.M.

drawn by E. KNABENHANS
dept. ck.
dept. appr. J.R. MORRIS
coord. ck. CHAMBERS
p.m. appr.
B&R appr.

ATLANTA — NEW YORK
LOCKWOOD GREENE
ARCHITECTS · ENGINEERS
SPARTANBURG, S.C.

sheet title: TYPICAL SECTIONS

job name: SOUTH CAROLINA PUBLIC SERVICE AUTHORITY
GEORGETOWN GENERATING STATION
GEORGETOWN SOUTH CAROLINA

scale: NO SCALE
L-G JOB NO. 71029
B&R W.O. NO. 2862-02
date: 12-1-72
DWG. NO. CV-511
rev. no. 10

GSP-103

APPENDIX 2

Geosyntec consultants

104 South Main Street, Suite 115
Greenville, South Carolina 29601
PH 864.438.4900
FAX 864.438.4910
www.geosyntec.com

Memorandum

Date: 6 June 2014

To: Robby White, Geosyntec

Copies to:

From: Fabian Benavente, P.E., Geosyntec

Subject: Pond Bottom Estimate
Winyah Generating Station
Georgetown, South Carolina

INTRODUCTION

At the start of the work, the base grades of the Coal Combustion Residual (CCR) ponds were estimated based on historical information. In particular, Geosyntec relied on the data available on the pre-development drawing set by Lockwood Greene prepared in 1978. Since these drawings were not as-built drawings, Geosyntec made some assumptions with regards to the borrow activity that may have taken place, in particular to construct the berms of the ponds, prior to the ponds being used to dispose CCRs. The table below presents the drawings that were used to estimate the pond bottoms for each pond in August 2013.

Pond	Drawings used to estimate pond bottom
Slurry Pond 3&4	Bottom surface: digitized from contours shown on Drawing CV-541, 542, 543, 544, and 545 [Lockwood Greene, 1978]
West Ash Pond	Bottom surface: digitized from contours shown on Drawing CV-544, 545, and 546 [Lockwood Greene, 1978]
South Ash Pond	Bottom surface: digitized from contours shown on Drawing CV-549 and 550 [Lockwood Greene, 1978]
Unit 2 Slurry Pond	Bottom surface: assumed to be 24' based on note on Drawing CV-517 [Lockwood Greene, 1978]
Ash Ponds A&B	Bottom surface: digitized from contours shown on Drawing CV-504 [Lockwood Greene, 1978]

DATA USED

As part of the ongoing work, Geosyntec performed investigations to support the geotechnical evaluation of the ponds. Although not specifically designed for this purpose, these investigations were used to estimate the transition between in-place CCR material and natural soils (i.e., the pond bottom). Three investigation campaigns were performed by Geosyntec, on February 2013, October 2013, and December 2013. In addition, Geosyntec reviewed the logs from borings drilled by Paul C. Rizzo and Associates (PCRA) in 1993 and again in 1999 to help us estimate the pond bottoms. The table below presents the quantity of investigation locations available and frequency (location per acres) for each pond.

Pond	Area (ac)	Number of Investigation Locations	Frequency
Slurry Pond 3&4 and West Ash Pond	162 (103+59)	66	1 location per 2.5 acres
South Ash Pond	73	9	1 location per 8.1 acres
Unit 2 Slurry Pond	31	28	1 location per 1.1 acres
Ash Ponds A&B	152 (88+64)	54	1 location per 2.8 acres

Drawings 1 to 4 present a plan view of the ponds with the spatial distribution of the locations used to estimate the pond bottoms.

SURFACE INTERPOLATION AND VOLUME CALCULATION

AutoCAD Civil 3D was used to interpolate between known data points and build a surface (pond bottom). The upstream slopes of the perimeter and diving dikes were estimated and made part of the surface; in addition, it was necessary to extrapolate the contours to the perimeter of the ponds (upstream slopes of perimeter dikes) in order to have a solid surface from which to work from for quantity take-offs. Drawings 5 to 8 present the pond bottom for each pond.

These pond bottoms were used to estimate the amount of in-place material by subtracting it from the existing ground surface (topographic survey dated 06/29/2011 and revised 1/14/2012 by Thomas & Hutton). Drawings 9 to 12 present the in-place volumes for each pond; the table below summarizes this data.

Pond	Area (ac)	Volume (cy)	Average Depth (ft)	Previously estimated volume (cy)
Slurry Pond 3&4	103	2,578,743	15.5	2,280,000 to 3,111,000
West Ash Pond	59	2,125,756	22.3	1,950,000 to 2,426,000
South Ash Pond	73	1,657,174	14.9	1,172,000 to 1,761,000
Unit 2 Slurry Pond	31	344,279	6.9	388,000
Ash Ponds A&B	152 (88+64)	4,264,211 (2,730,225 + 1,533,886)	17.4	3,804,000

Four (4) cross-sections for each of the ponds are presented in Drawings 13 to 18; these cross-sections show pond bottom, existing ground surface, and also two potentiometric surfaces: the potentiometric surface measured in June 2013 and the potentiometric surface modeled with the assumption that the ponds have been drained.

* * * * *

FIGURES

LEGEND

10	EXISTING MAJOR CONTOUR ELEVATION
	EXISTING MINOR CONTOUR ELEVATION
12.10 B-201	POND BOTTOM ELEVATION / LOCATION ID

NOTES:

1. TOPOGRAPHIC SURVEY PROVIDED BY THOMAS & HUTTON DATED 06/29/11 AND REVISED ON 01/14/12.
2. COORDINATES AND DIRECTIONS SHOWN ON THIS DRAWING ARE BASED ON SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM (NAD83) (CORS) (INT'L FT). DISTANCES SHOWN ARE GROUND DISTANCES, NOT GRID DISTANCES.
3. ELEVATIONS ON THIS SURVEY ARE REFERENCED TO NGVD 1929 DATUM AS DERIVED FROM NGS MONUMENT PID#DD1957.

0 400' 800'

SCALE IN FEET

SLURRY POND 3 & 4 AND WEST ASH POND -CCR IN PLACE- EXISTING CONDITIONS

DRAFT WORK IN PROGRESS
FOR REVIEW ONLY

SLURRY POND 3 & 4 AND WEST ASH POND -CCR IN PLACE- EXISTING CONDITIONS		
Geosyntec consultants		FIGURE 1
PROJECT NO: GSC5242	JUNE 2014	

M:\S\SANTEE COOPER\SANTEE COOPER--WINYAH\0006--WINYAH VOLUME CALCULATIONS--GSC5242\FIGURES\W-0-SC-585-00-F0006-045

0 500' 1000'

SCALE IN FEET

SOUTH ASH POND -CCR IN PLACE- EXISTING CONDITIONS

LEGEND

20	EXISTING MAJOR CONTOUR ELEVATION
	EXISTING MINOR CONTOUR ELEVATION
15.82 CPT-122	POND BOTTOM ELEVATION / LOCATION ID

NOTES:

1. TOPOGRAPHIC SURVEY PROVIDED BY THOMAS & HUTTON DATED 06/29/11 AND REVISED ON 01/14/12.
2. COORDINATES AND DIRECTIONS SHOWN ON THIS DRAWING ARE BASED ON SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM (NAD83) (CORS) (INT'L FT). DISTANCES SHOWN ARE GROUND DISTANCES, NOT GRID DISTANCES.
3. ELEVATIONS ON THIS SURVEY ARE REFERENCED TO NGVD 1929 DATUM AS DERIVED FROM NGS MONUMENT PID#DD1957.

DRAFT WORK IN PROGRESS-FOR REVIEW ONLY

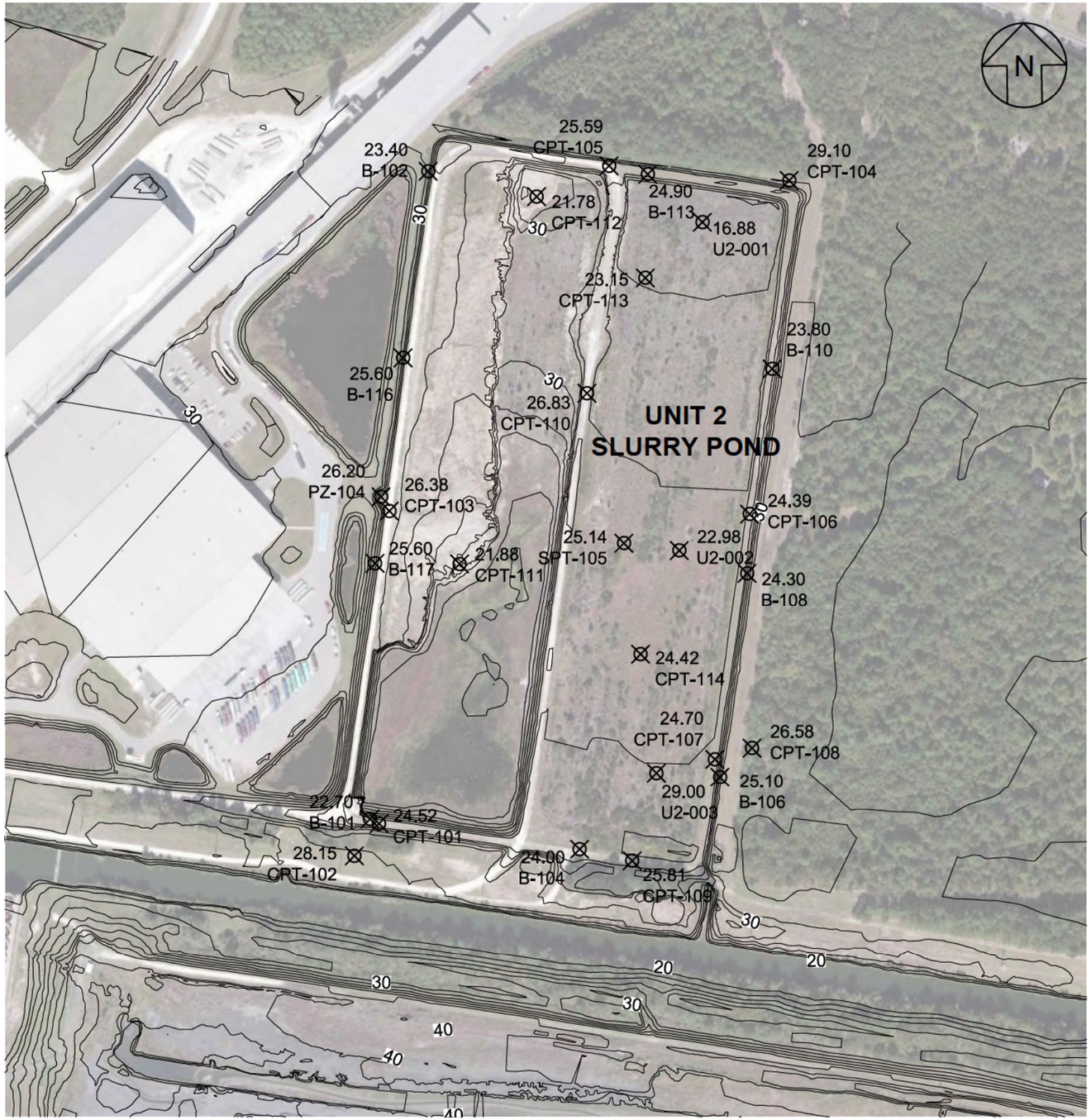
SOUTH ASH POND
-CCR IN PLACE-
EXISTING CONDITIONS

Geosyntec consultants

PROJECT NO: GSC5242 | JUNE 2014

FIGURE 2

M:\S\SANTEE COOPER\SANTEE COOPER-WINYAH\0006-WINYAH VOLUME CALCULATIONS-GSC5242\FIGURES\W-0-SC-585-00-F0006-046



LEGEND

20	EXISTING MAJOR CONTOUR ELEVATION
	EXISTING MINOR CONTOUR ELEVATION
22.70 B-101	POND BOTTOM ELEVATION / LOCATION ID

NOTES:

1. TOPOGRAPHIC SURVEY PROVIDED BY THOMAS & HUTTON DATED 06/29/11 AND REVISED ON 01/14/12.
2. COORDINATES AND DIRECTIONS SHOWN ON THIS DRAWING ARE BASED ON SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM (NAD83) (CORS) (INT'L FT). DISTANCES SHOWN ARE GROUND DISTANCES, NOT GRID DISTANCES.
3. ELEVATIONS ON THIS SURVEY ARE REFERENCED TO NGVD 1929 DATUM AS DERIVED FROM NGS MONUMENT PID#DD1957.

0 300' 600'

SCALE IN FEET

UNIT 2 SLURRY POND -CCR IN PLACE- EXISTING CONDITIONS

DRAFT WORK IN PROGRESS
FOR REVIEW ONLY

UNIT 2 SLURRY POND -CCR IN PLACE- EXISTING CONDITIONS		
Geosyntec consultants		FIGURE 3
PROJECT NO: GSC5242	JUNE 2014	

M:\S\SANTEE COOPER\SANTEE COOPER-WINYAH\0006-WINYAH VOLUME CALCULATIONS-GSC5242\FIGURES\W-0-SC-585-00-F0006-047

LEGEND

20	EXISTING MAJOR CONTOUR ELEVATION
	EXISTING MINOR CONTOUR ELEVATION
18.60 B-1	POND BOTTOM ELEVATION / LOCATION ID

NOTES:

1. TOPOGRAPHIC SURVEY PROVIDED BY THOMAS & HUTTON DATED 06/29/11 AND REVISED ON 01/14/12.
2. COORDINATES AND DIRECTIONS SHOWN ON THIS DRAWING ARE BASED ON SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM (NAD83) (CORS) (INT'L FT). DISTANCES SHOWN ARE GROUND DISTANCES, NOT GRID DISTANCES.
3. ELEVATIONS ON THIS SURVEY ARE REFERENCED TO NGVD 1929 DATUM AS DERIVED FROM NGS MONUMENT PID#DD1957.

0 500' 1000'

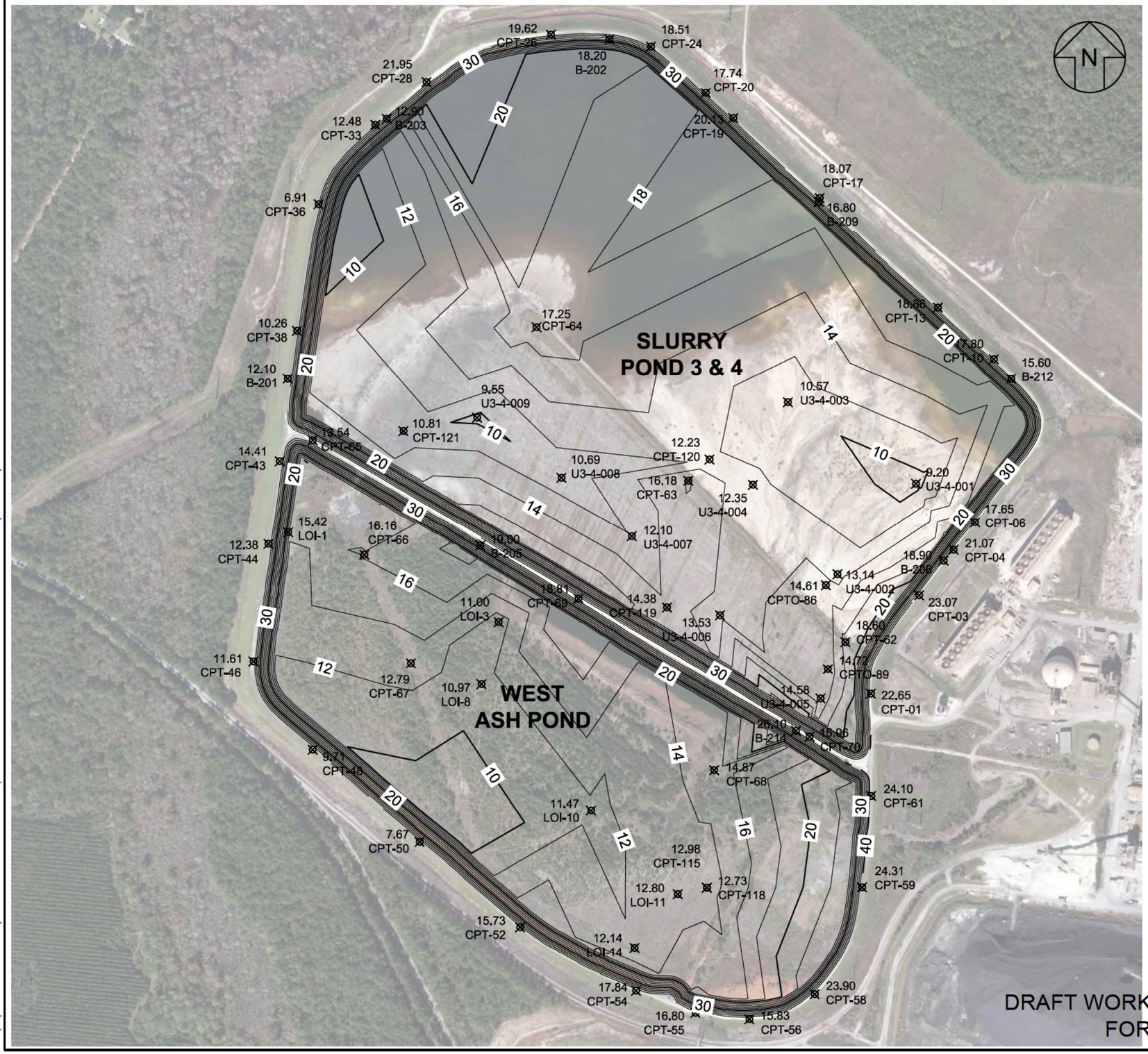
SCALE IN FEET

ASH POND A & B -CCR IN PLACE- EXISTING CONDITIONS

DRAFT WORK IN PROGRESS-FOR REVIEW ONLY

ASH POND A & B -CCR IN PLACE- EXISTING CONDITIONS		
Geosyntec consultants		FIGURE 4
PROJECT NO: GSC5242	JUNE 2014	

M:\S\SANTEE COOPER\SANTEE COOPER-WINYAH\0006-WINYAH VOLUME CALCULATIONS-GSC5242\FIGURES\W-0-SC-585-00-F0006-048



LEGEND

10	ESTIMATED POND BOTTOM MAJOR CONTOUR ELEVATION
	ESTIMATED POND BOTTOM MINOR CONTOUR ELEVATION
12.10 B-201	POND BOTTOM ELEVATION / LOCATION ID

NOTES:

1. TOPOGRAPHIC SURVEY PROVIDED BY THOMAS & HUTTON DATED 06/29/11 AND REVISED ON 01/14/12.
2. COORDINATES AND DIRECTIONS SHOWN ON THIS DRAWING ARE BASED ON SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM (NAD83) (CORS) (INT'L FT). DISTANCES SHOWN ARE GROUND DISTANCES, NOT GRID DISTANCES.
3. ELEVATIONS ON THIS SURVEY ARE REFERENCED TO NGVD 1929 DATUM AS DERIVED FROM NGS MONUMENT PID#DD1957.

0 400' 800'

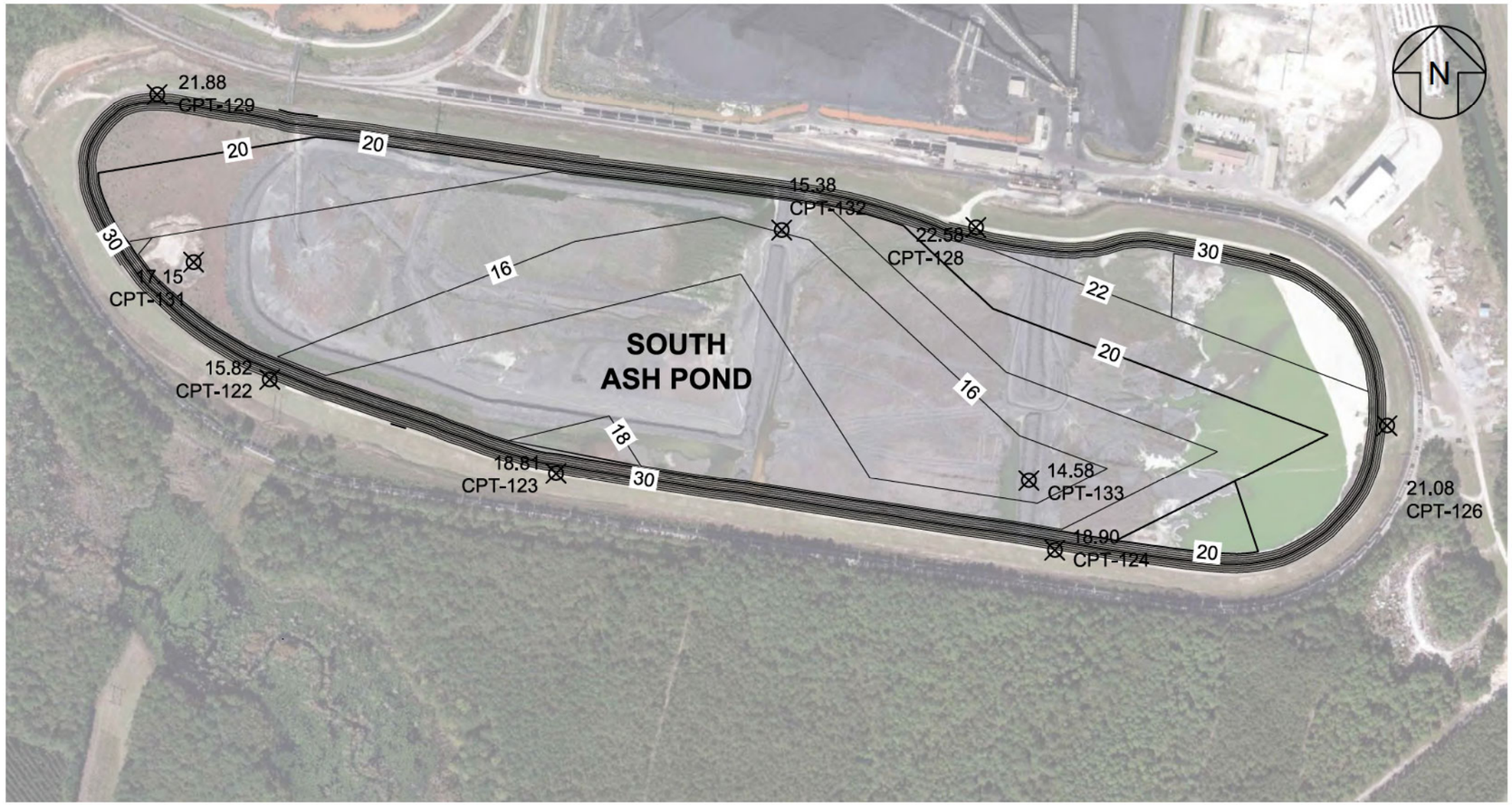
SCALE IN FEET

SLURRY POND 3 & 4 AND WEST ASH POND -CCR IN PLACE- ESTIMATED POND BOTTOM

DRAFT WORK IN PROGRESS
FOR REVIEW ONLY

SLURRY POND 3 & 4 AND WEST ASH POND -CCR IN PLACE- ESTIMATED POND BOTTOM		
Geosyntec consultants		FIGURE 5
PROJECT NO: GSC5242	JUNE 2014	

M:\S\SANTEE COOPER\SANTEE COOPER-WINYAH\0006-WINYAH VOLUME CALCULATIONS-GSC5242\FIGURES\W-0-SC-585-00-F0006-045



0 400' 800'

SCALE IN FEET

SOUTH ASH POND -CCR IN PLACE- ESTIMATED POND BOTTOM

LEGEND

20	ESTIMATED POND BOTTOM MAJOR CONTOUR ELEVATION
	ESTIMATED POND BOTTOM MINOR CONTOUR ELEVATION
15.82 CPT-122	POND BOTTOM ELEVATION / LOCATION ID

NOTES:

1. TOPOGRAPHIC SURVEY PROVIDED BY THOMAS & HUTTON DATED 06/29/11 AND REVISED ON 01/14/12.
2. COORDINATES AND DIRECTIONS SHOWN ON THIS DRAWING ARE BASED ON SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM (NAD83) (CORS) (INT'L FT). DISTANCES SHOWN ARE GROUND DISTANCES, NOT GRID DISTANCES.
3. ELEVATIONS ON THIS SURVEY ARE REFERENCED TO NGVD 1929 DATUM AS DERIVED FROM NGS MONUMENT PID#DD1957.

DRAFT WORK IN PROGRESS-FOR REVIEW ONLY

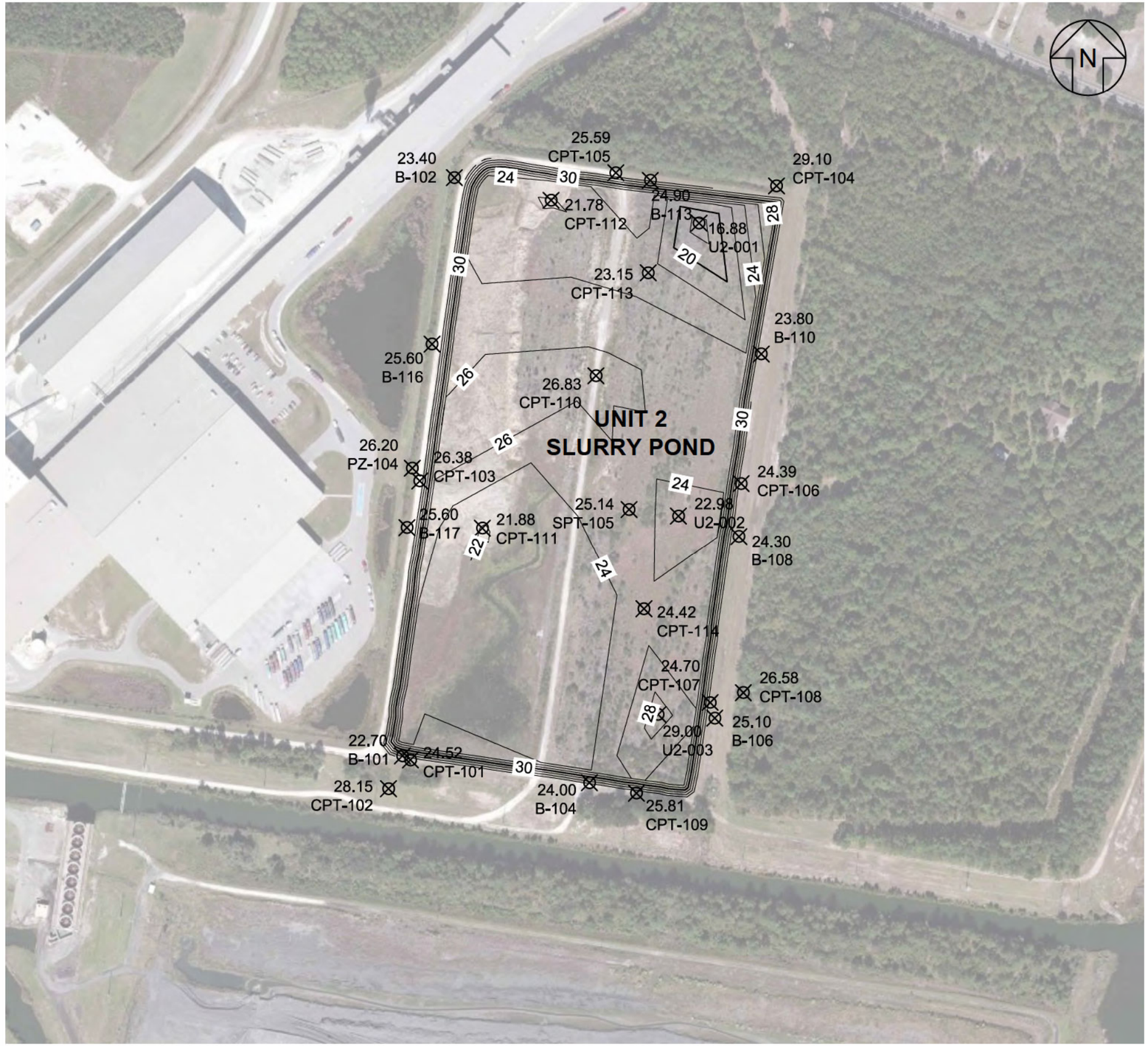
SOUTH ASH POND
-CCR IN PLACE-
ESTIMATED POND BOTTOM

Geosyntec consultants

FIGURE 6

PROJECT NO: GSC5242 | JUNE 2014

M:\S\SANTEE COOPER\SANTEE COOPER-WINYAH\0006-WINYAH VOLUME CALCULATIONS-GSC5242\FIGURES\W-0-SC-585-00-F0006-046



LEGEND

20	ESTIMATED POND BOTTOM MAJOR CONTOUR ELEVATION
	ESTIMATED POND BOTTOM MINOR CONTOUR ELEVATION
22.70 B-101	POND BOTTOM ELEVATION / LOCATION ID

NOTES:

1. TOPOGRAPHIC SURVEY PROVIDED BY THOMAS & HUTTON DATED 06/29/11 AND REVISED ON 01/14/12.
2. COORDINATES AND DIRECTIONS SHOWN ON THIS DRAWING ARE BASED ON SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM (NAD83) (CORS) (INT'L FT). DISTANCES SHOWN ARE GROUND DISTANCES, NOT GRID DISTANCES.
3. ELEVATIONS ON THIS SURVEY ARE REFERENCED TO NGVD 1929 DATUM AS DERIVED FROM NGS MONUMENT PID#DD1957.

0 300' 600'

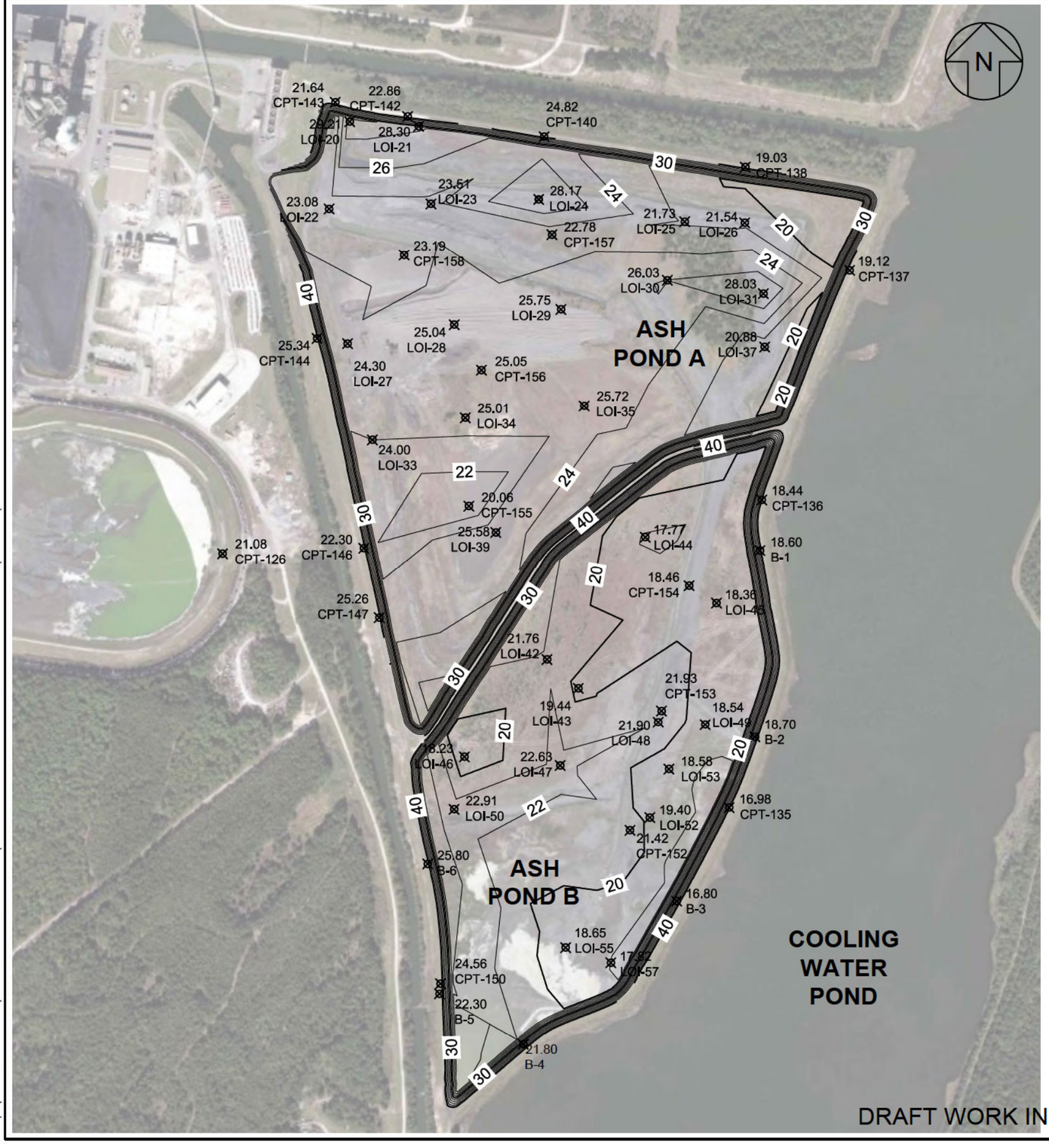
SCALE IN FEET

UNIT 2 SLURRY POND -CCR IN PLACE- ESTIMATED POND BOTTOM

DRAFT WORK IN PROGRESS
FOR REVIEW ONLY

UNIT 2 SLURRY POND -CCR IN PLACE- ESTIMATED POND BOTTOM		
Geosyntec consultants		FIGURE 7
PROJECT NO: GSC5242	JUNE 2014	

M: \S\SANTEE COOPER\SANTEE COOPER-WINYAH\0006-WINYAH VOLUME CALCULATIONS-GSC5242\FIGURES\W-0-SC-585-00-F0006-047



LEGEND

20	ESTIMATED POND BOTTOM MAJOR CONTOUR ELEVATION
	ESTIMATED POND BOTTOM MINOR CONTOUR ELEVATION
18.60 B-1	POND BOTTOM ELEVATION / LOCATION ID

NOTES:

1. TOPOGRAPHIC SURVEY PROVIDED BY THOMAS & HUTTON DATED 06/29/11 AND REVISED ON 01/14/12.
2. COORDINATES AND DIRECTIONS SHOWN ON THIS DRAWING ARE BASED ON SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM (NAD83) (CORS) (INT'L FT). DISTANCES SHOWN ARE GROUND DISTANCES, NOT GRID DISTANCES.
3. ELEVATIONS ON THIS SURVEY ARE REFERENCED TO NGVD 1929 DATUM AS DERIVED FROM NGS MONUMENT PID#DD1957.

0 500' 1000'

SCALE IN FEET

ASH POND A & B
-CCR IN PLACE-
ESTIMATED POND BOTTOM

DRAFT WORK IN PROGRESS-FOR REVIEW ONLY

ASH POND A & B
-CCR IN PLACE-
ESTIMATED POND BOTTOM

Geosyntec consultants

PROJECT NO: GSC5242 | JUNE 2014 | FIGURE 8

M:\S\SANTEE COOPER\SANITEE COOPER-WINYAH\0006-WINYAH VOLUME CALCULATIONS-GSC5242\FIGURES\W-0-SC-585-00-F0006-048

LEGEND

0 ISOPACH MAJOR CONTOUR DEPTH

ISOPACH MINOR CONTOUR DEPTH

SLURRY POND 3 & 4	
BASE SURFACE	SLURRY POND 3 & 4 POND BOTTOM
COMPARISON SURFACE	WINYAH EXIST TOPO-SLURRY POND 3 & 4
CUT VOLUME	46302.10 (CY)
FILL VOLUME	2625045.59 (CY)
NET VOLUME	2578743.49 (CY)
WEST ASH POND	
BASE SURFACE	WEST ASH POND BOTTOM
COMPARISON SURFACE	WINYAH EXIST TOPO-WEST ASH POND
CUT VOLUME	640.36 (CY)
FILL VOLUME	2126396.45 (CY)
NET VOLUME	2125756.09 (CY)

NOTES:

1. TOPOGRAPHIC SURVEY PROVIDED BY THOMAS & HUTTON DATED 06/29/11 AND REVISED ON 01/14/12.
2. COORDINATES AND DIRECTIONS SHOWN ON THIS DRAWING ARE BASED ON SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM (NAD83) (CORS) (INT'L FT). DISTANCES SHOWN ARE GROUND DISTANCES, NOT GRID DISTANCES.
3. ELEVATIONS ON THIS SURVEY ARE REFERENCED TO NGVD 1929 DATUM AS DERIVED FROM NGS MONUMENT PID#DD1957.

0 400' 800'

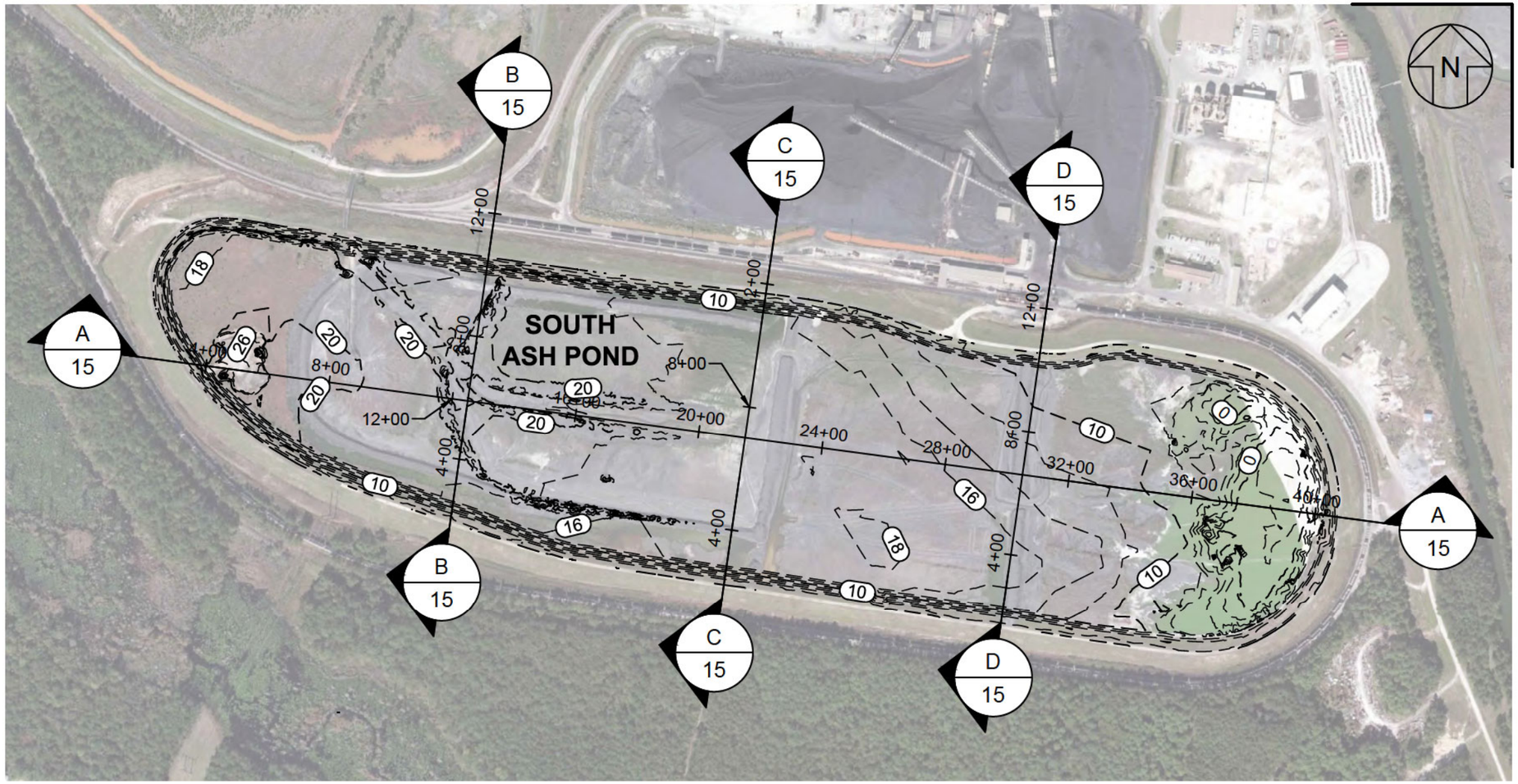
SCALE IN FEET

SLURRY POND 3 & 4 AND WEST ASH POND -CCR IN PLACE- CCR ISOPACHS

DRAFT WORK IN PROGRESS
FOR REVIEW ONLY

SLURRY POND 3 & 4 AND WEST ASH POND -CCR IN PLACE- CCR ISOPACHS		
Geosyntec consultants		FIGURE 9
PROJECT NO: GSC5242	JUNE 2014	

M:\S\SANTEE COOPER\SANTEE COOPER-WINYAH\0006-WINYAH VOLUME CALCULATIONS-GSC5242\FIGURES\W-0-SC-585-00-F0006-045



0 400' 800'

SCALE IN FEET

LEGEND

0 ISOPACH MAJOR CONTOUR DEPTH

ISOPACH MINOR CONTOUR DEPTH

SOUTH ASH POND	
BASE SURFACE	SOUTH ASH POND BOTTOM
COMPARISON SURFACE	WINYAH EXIST TOPO-SOUTH ASH POND
CUT VOLUME	6412.01 (CY)
FILL VOLUME	1663585.90 (CY)
NET VOLUME	1657173.89 (CY)

NOTES:

1. TOPOGRAPHIC SURVEY PROVIDED BY THOMAS & HUTTON DATED 06/29/11 AND REVISED ON 01/14/12.
2. COORDINATES AND DIRECTIONS SHOWN ON THIS DRAWING ARE BASED ON SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM (NAD83) (CORS) (INT'L FT). DISTANCES SHOWN ARE GROUND DISTANCES, NOT GRID DISTANCES.
3. ELEVATIONS ON THIS SURVEY ARE REFERENCED TO NGVD 1929 DATUM AS DERIVED FROM NGS MONUMENT PID#DD1957.

DRAFT WORK IN PROGRESS-FOR REVIEW ONLY

SOUTH ASH POND -CCR IN PLACE- CCR ISOPACH

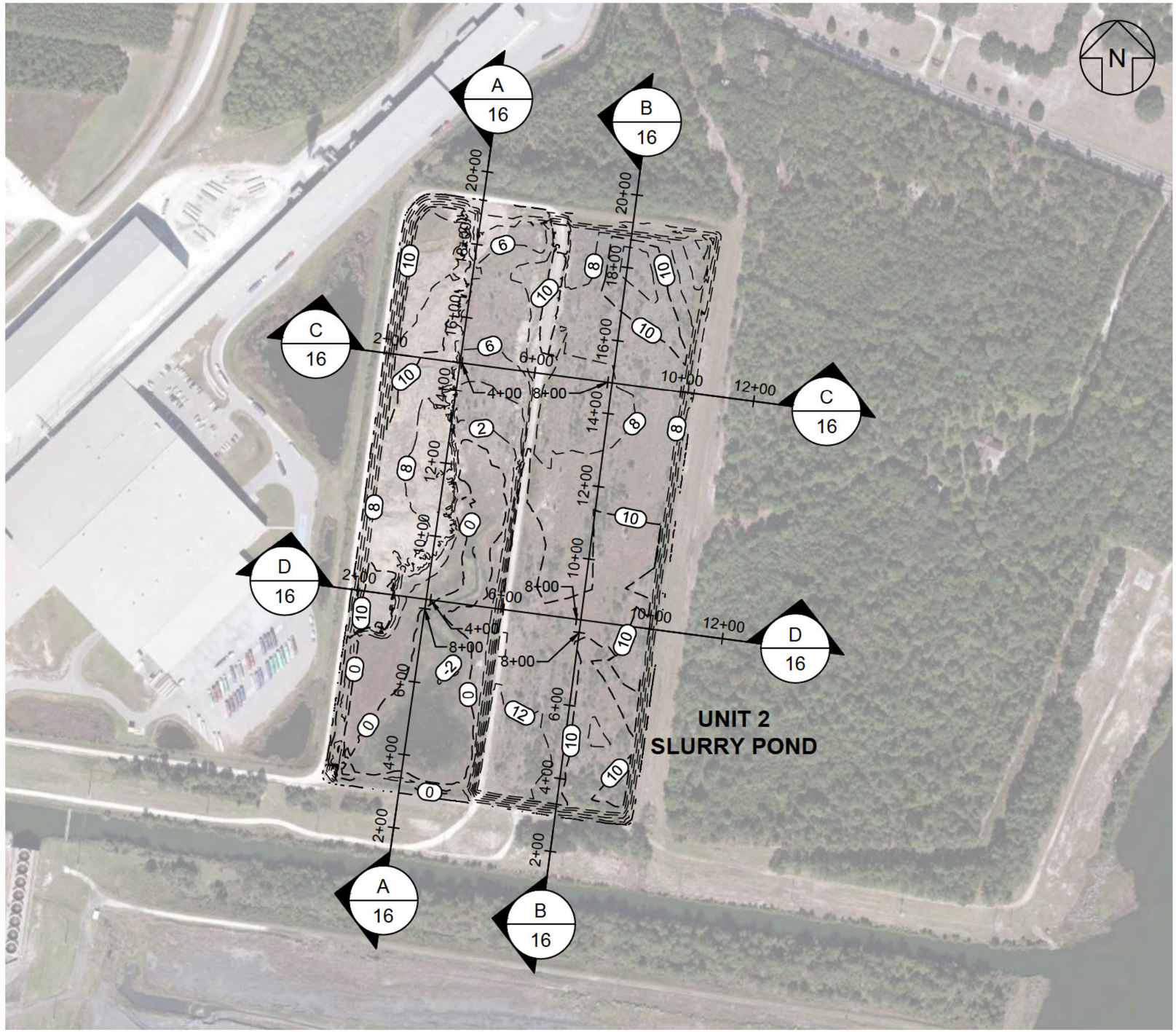
SOUTH ASH POND
-CCR IN PLACE-
CCR ISOPACH

Geosyntec consultants

FIGURE 10

PROJECT NO: GSC5242 | JUNE 2014

M:\S\SANTEE COOPER\SANTEE COOPER--WINYAH\0006--WINYAH VOLUME CALCULATIONS--GSC5242\FIGURES\W--0--SC--585--00--F0006--046



LEGEND

0 — ISOPACH MAJOR CONTOUR DEPTH

ISOPACH MINOR CONTOUR DEPTH

UNIT 2 SLURRY POND	
BASE SURFACE	UNIT 2 SLURRY POND BOTTOM
COMPARISON SURFACE	WINYAH EXIST TOPO-UNIT 2 SLURRY POND
CUT VOLUME	5426.84 (CY)
FILL VOLUME	349706.15 (CY)
NET VOLUME	344279.31 (CY)

NOTES:

1. TOPOGRAPHIC SURVEY PROVIDED BY THOMAS & HUTTON DATED 06/29/11 AND REVISED ON 01/14/12.
2. COORDINATES AND DIRECTIONS SHOWN ON THIS DRAWING ARE BASED ON SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM (NAD83) (CORS) (INT'L FT). DISTANCES SHOWN ARE GROUND DISTANCES, NOT GRID DISTANCES.
3. ELEVATIONS ON THIS SURVEY ARE REFERENCED TO NGVD 1929 DATUM AS DERIVED FROM NGS MONUMENT PID#DD1957.

0 300' 600'

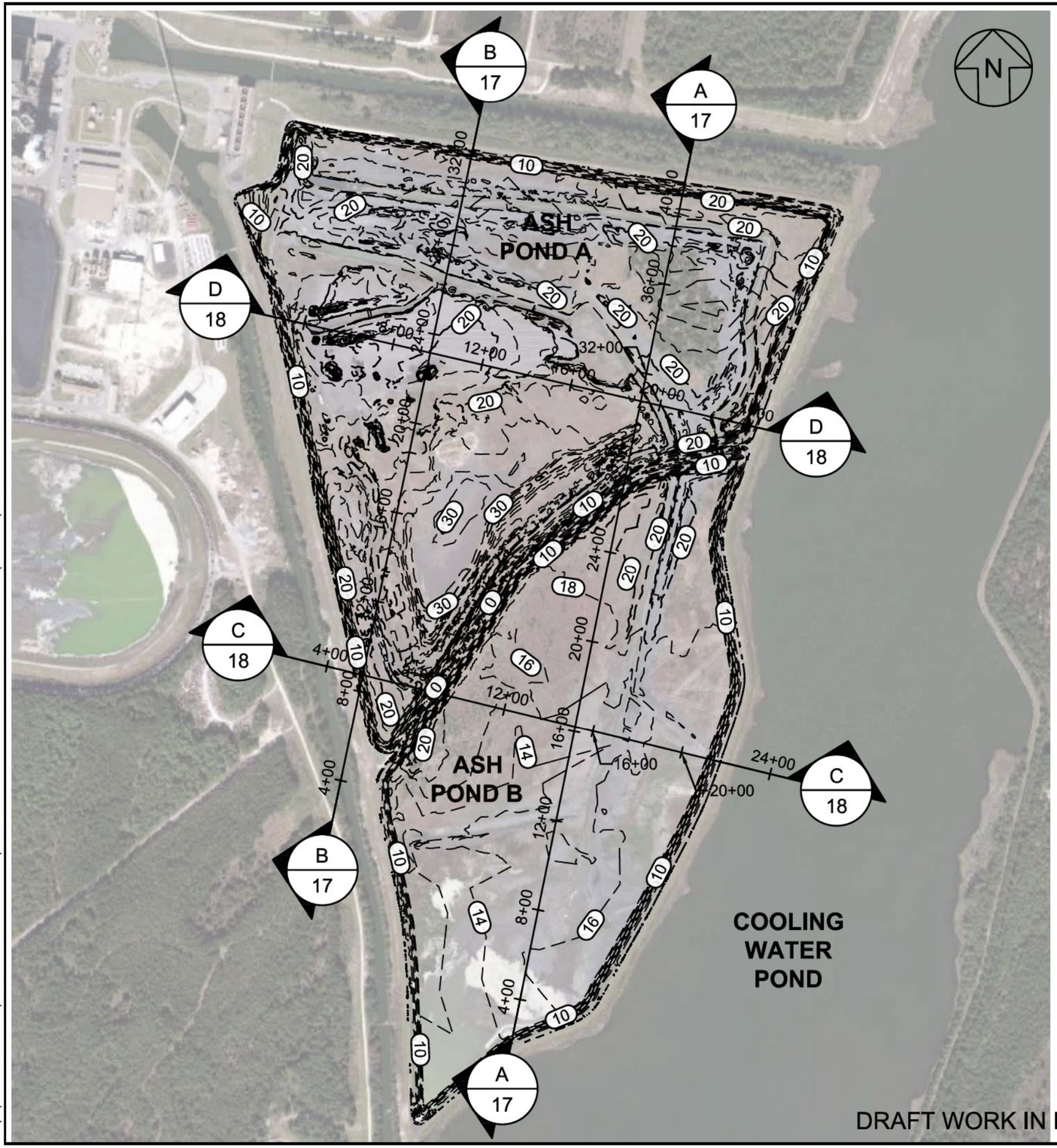
SCALE IN FEET

UNIT 2 SLURRY POND -CCR IN PLACE- CCR ISOPACH

DRAFT WORK IN PROGRESS
FOR REVIEW ONLY

UNIT 2 SLURRY POND -CCR IN PLACE- CCR ISOPACH		
Geosyntec consultants		FIGURE 11
PROJECT NO: GSC5242	JUNE 2014	

M:\S\SANTEE COOPER\SANTEE COOPER--WINYAH\0006--WINYAH VOLUME CALCULATIONS--GSC5242\FIGURES\W-0-SC-585-00-F0006-047



LEGEND

10 ISOPACH MAJOR CONTOUR DEPTH

ISOPACH MINOR CONTOUR DEPTH

ASH POND A	
BASE SURFACE	ASH POND A BOTTOM
COMPARISON SURFACE	WINYAH EXIST TOPO-ASH POND A
CUT VOLUME	9.04 (CY)
FILL VOLUME	2730334.49 (CY)
NET VOLUME	2730325.45 (CY)
ASH POND B	
BASE SURFACE	ASH POND B BOTTOM
COMPARISON SURFACE	WINYAH EXIST TOPO-ASH POND B
CUT VOLUME	46.78 (CY)
FILL VOLUME	1533932.83 (CY)
NET VOLUME	1533886.06 (CY)

NOTES:

1. TOPOGRAPHIC SURVEY PROVIDED BY THOMAS & HUTTON DATED 06/29/11 AND REVISED ON 01/14/12.
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3. ELEVATIONS ON THIS SURVEY ARE REFERENCED TO NGVD 1929 DATUM AS DERIVED FROM NGS MONUMENT PID#DD1957.

0 500' 1000'

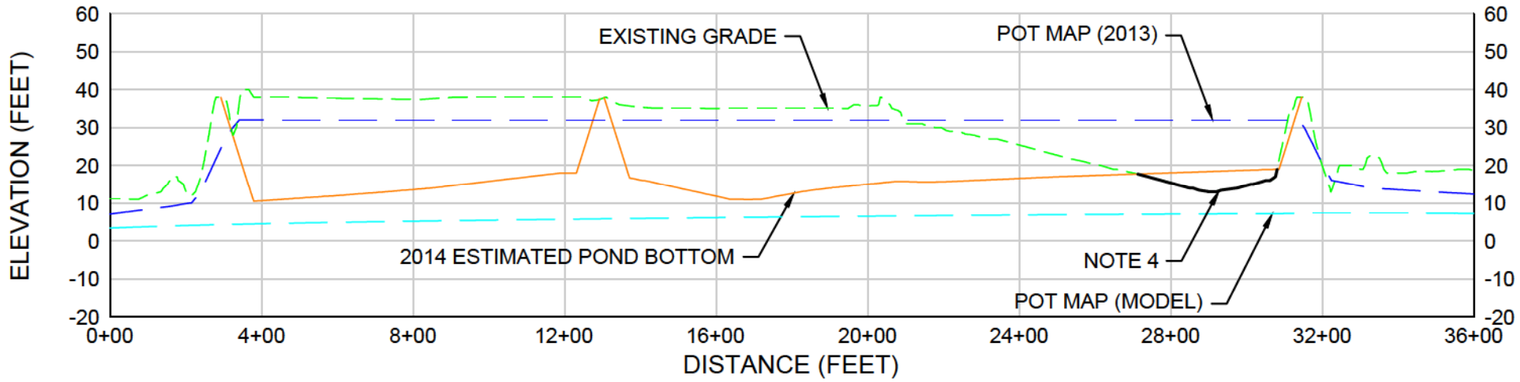
SCALE IN FEET

ASH POND A & B
-CCR IN PLACE-
CCR ISOPACHS

DRAFT WORK IN PROGRESS-FOR REVIEW ONLY

ASH POND A & B -CCR IN PLACE- CCR ISOPACHS		
Geosyntec consultants		FIGURE 12
PROJECT NO: GSC5242	JUNE 2014	

M: \S\SANTEE COOPER\SANTEE COOPER–WINYAH\0006–WINYAH VOLUME CALCULATIONS–GSC5242\FIGURES\W–0–SC–585–00–F0006–048

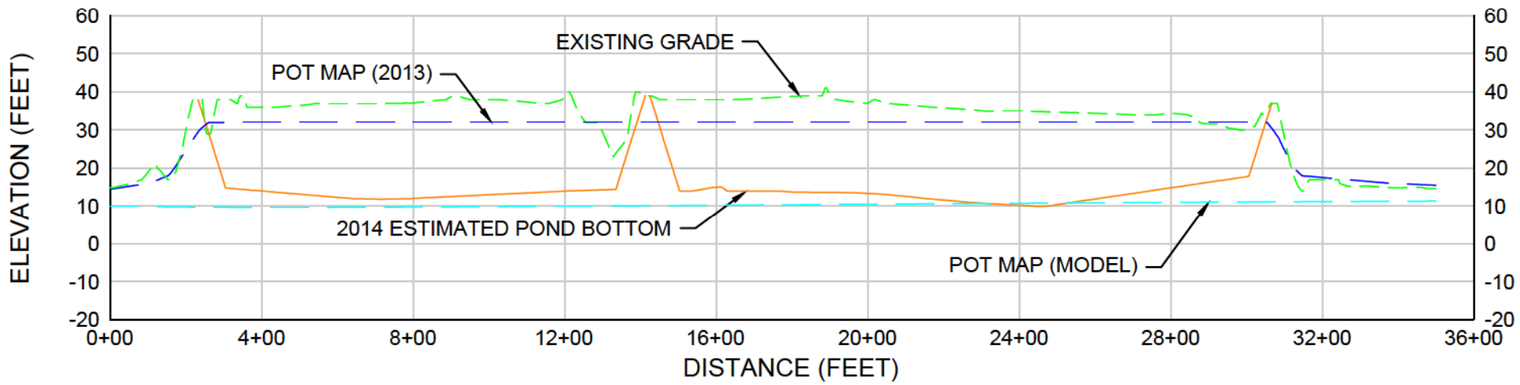


A/9 SECTION

SLURRY POND 3 & 4 AND WEST ASH POND

SCALE: 1" = 400' (HORIZONTAL) 1" = 40' (VERTICAL)

XREF: W-0-SC-585-00-F0006-045



B/9 SECTION

SLURRY POND 3 & 4 AND WEST ASH POND

SCALE: 1" = 400' (HORIZONTAL) 1" = 40' (VERTICAL)

XREF: W-0-SC-585-00-F0006-045

LEGEND

- EXISTING GRADE
- ESTIMATED POND BOTTOM (2014)
- POTENTIOMETRIC SURFACE (2013)
- POTENTIOMETRIC SURFACE MODEL AS IF PONDS ARE DRAINED

NOTES:

1. TOPOGRAPHIC SURVEY PROVIDED BY THOMAS & HUTTON DATED 06/29/11 AND REVISED ON 01/14/12.
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3. ELEVATIONS ON THIS SURVEY ARE REFERENCED TO NGVD 1929 DATUM AS DERIVED FROM NGS MONUMENT PID#DD1957.
4. ESTIMATED POND BOTTOM IN AREA WAS MANUALLY MADE TO COINCIDE WITH EXISTING GRADE.

0 400' 800'

HORIZONTAL SCALE IN FEET

0 40' 80'

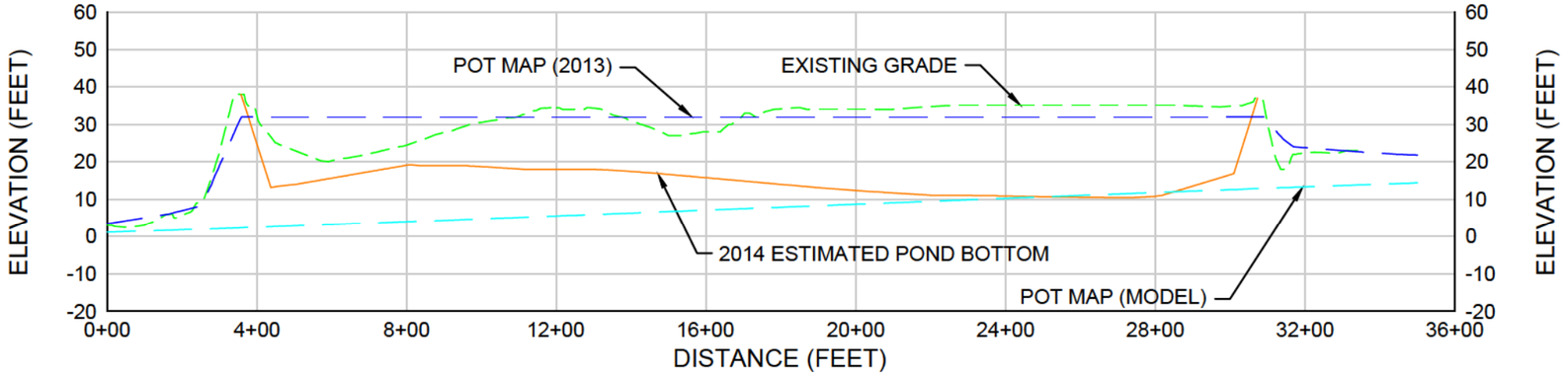
VERTICAL SCALE IN FEET

SLURRY POND 3 & 4 AND WEST ASH POND -CCR IN PLACE- SITE SECTIONS

DRAFT WORK IN PROGRESS
FOR REVIEW ONLY

SLURRY POND 3 & 4 AND WEST ASH POND -CCR IN PLACE- SITE SECTIONS		
Geosyntec consultants		FIGURE 13
PROJECT NO: GSC5242	JUNE 2014	

M:\S\SANTEE COOPER\SANTEE COOPER-WINYAH\0006-WINYAH VOLUME CALCULATIONS-GSC5242\FIGURES\W-0-SC-585-00-F0006-045

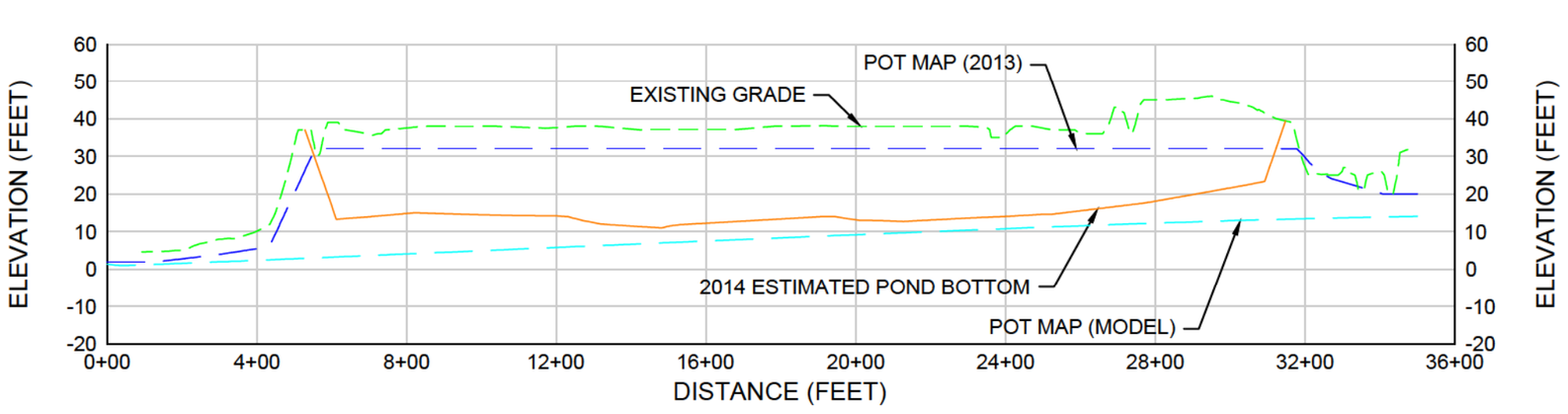


C/9 SECTION

SLURRY POND 3 & 4 AND WEST ASH POND

SCALE: 1" = 400' (HORIZONTAL) 1" = 40' (VERTICAL)

XREF: W-0-SC-585-00-F0006-045



D/9 SECTION

SLURRY POND 3 & 4 AND WEST ASH POND

SCALE: 1" = 400' (HORIZONTAL) 1" = 40' (VERTICAL)

XREF: W-0-SC-585-00-F0006-045

LEGEND

- EXISTING GRADE
- ESTIMATED POND BOTTOM (2014)
- POTENTIOMETRIC SURFACE (2013)
- POTENTIOMETRIC SURFACE MODEL AS IF PONDS ARE DRAINED

NOTES:

1. TOPOGRAPHIC SURVEY PROVIDED BY THOMAS & HUTTON DATED 06/29/11 AND REVISED ON 01/14/12.
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3. ELEVATIONS ON THIS SURVEY ARE REFERENCED TO NGVD 1929 DATUM AS DERIVED FROM NGS MONUMENT PID#DD1957.

0 400' 800'

HORIZONTAL SCALE IN FEET

0 40' 80'

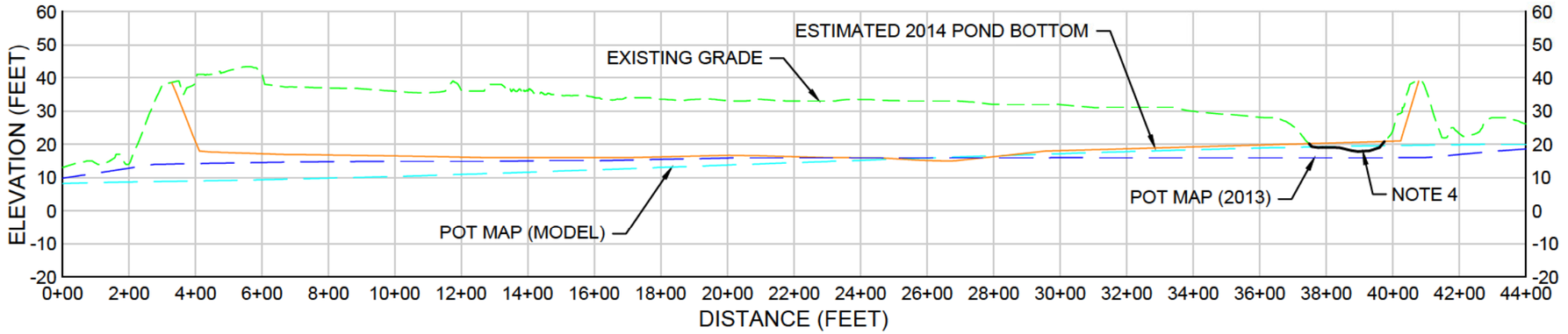
VERTICAL SCALE IN FEET

SLURRY POND 3 & 4 AND WEST ASH POND -CCR IN PLACE- SITE SECTIONS

DRAFT WORK IN PROGRESS FOR REVIEW ONLY

SLURRY POND 3 & 4 AND WEST ASH POND -CCR IN PLACE- SITE SECTIONS		
Geosyntec consultants		FIGURE 14
PROJECT NO: GSC5242	JUNE 2014	

M:\S\SANTEE COOPER\SANTEE COOPER--WINYAH\0006--WINYAH VOLUME CALCULATIONS--GSC5242\FIGURES\W-0-SC-585-00-F0006-045



A/10 SECTION
SOUTH ASH POND
SCALE: 1" = 400" (HORIZONTAL) 1" = 40' (VERTICAL)
XREF: W-0-SC-585-00-F0006-046

LEGEND

- EXISTING GRADE
- ESTIMATED POND BOTTOM (2014)
- POTENTIOMETRIC SURFACE (2013)
- POTENTIOMETRIC SURFACE MODEL AS IF PONDS ARE DRAINED

NOTES:

1. TOPOGRAPHIC SURVEY PROVIDED BY THOMAS & HUTTON DATED 06/29/11 AND REVISED ON 01/14/12.
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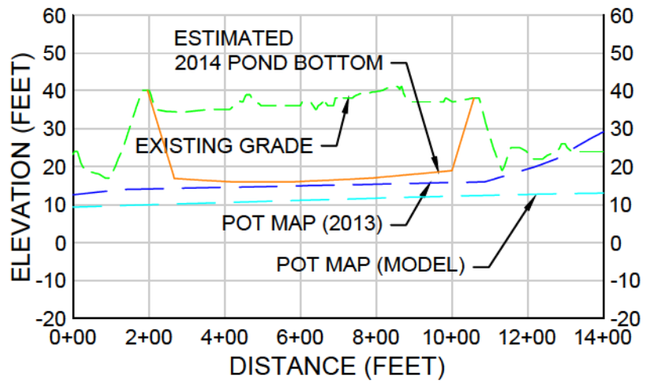
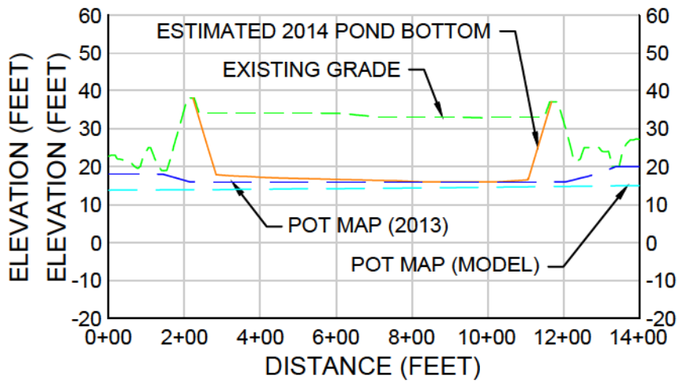
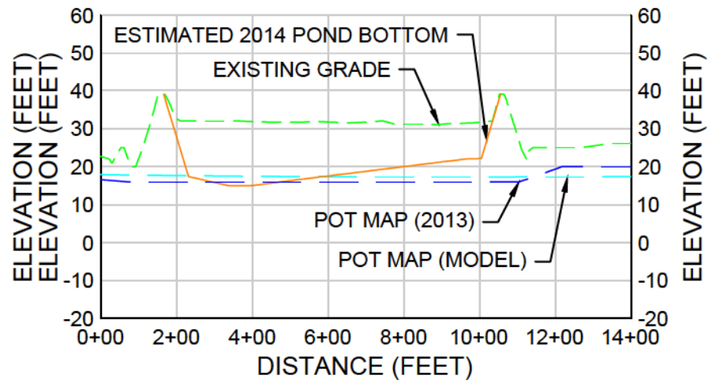
3. ELEVATIONS ON THIS SURVEY ARE REFERENCED TO NGVD 1929 DATUM AS DERIVED FROM NGS MONUMENT PID#DD1957.
4. ESTIMATED POND BOTTOM IN AREA WAS MANUALLY MADE TO COINCIDE WITH EXISTING GRADE.



B/10 SECTION
SOUTH ASH POND
SCALE: 1" = 400" (HORIZONTAL) 1" = 40' (VERTICAL)
XREF: W-0-SC-585-00-F0006-046



C/10 SECTION
SOUTH ASH POND
SCALE: 1" = 400" (HORIZONTAL) 1" = 40' (VERTICAL)
XREF: W-0-SC-585-00-F0006-046



D/10 SECTION
SOUTH ASH POND
SCALE: 1" = 400" (HORIZONTAL) 1" = 40' (VERTICAL)
XREF: W-0-SC-585-00-F0006-046

SOUTH ASH POND
-CCR IN PLACE-
SITE SECTIONS

0 400' 800'
HORIZONTAL SCALE IN FEET

0 40' 80'
VERTICAL SCALE IN FEET

DRAFT WORK IN PROGRESS-FOR REVIEW ONLY

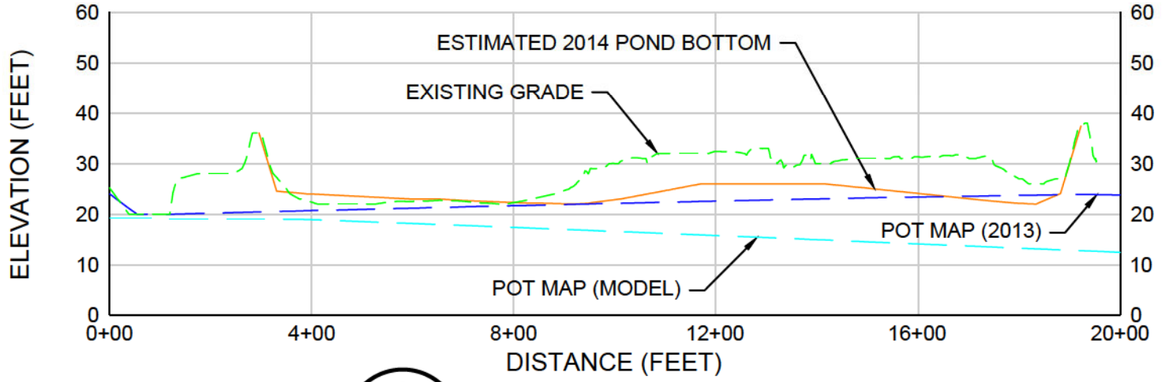
SOUTH ASH POND
-CCR IN PLACE-
SITE SECTIONS

Geosyntec consultants

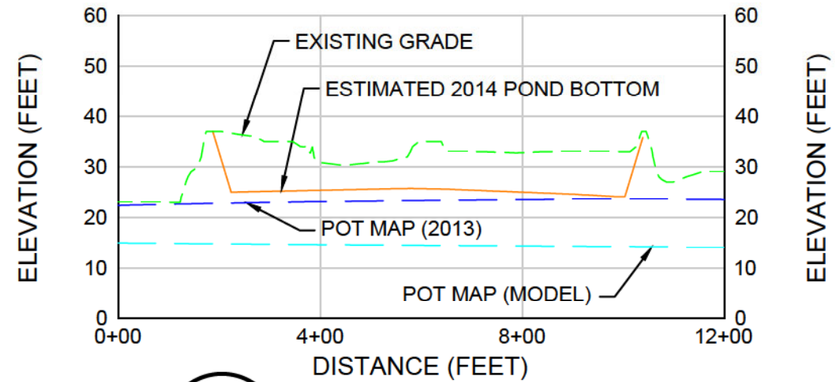
FIGURE 15

PROJECT NO: GSC5242 | JUNE 2014

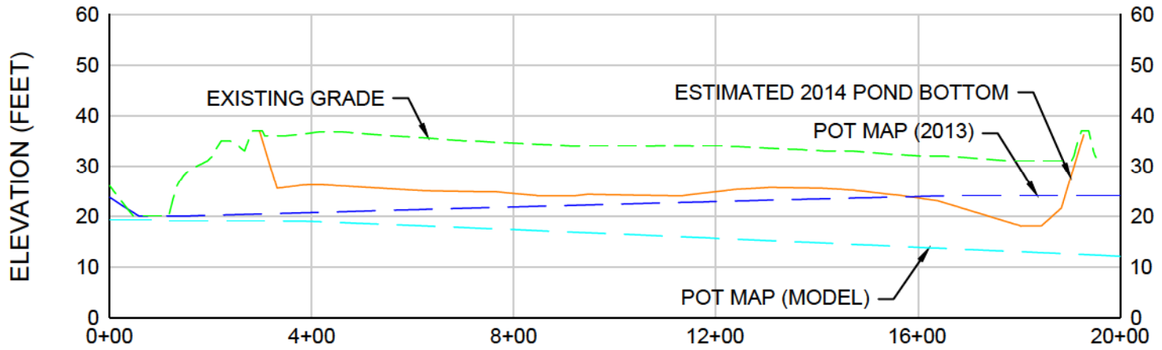
M:\S\SANTEE COOPER\SANTEE COOPER-WINYAH\0006-WINYAH VOLUME CALCULATIONS-GSC5242\FIGURES\W-0-SC-585-00-F0006-046



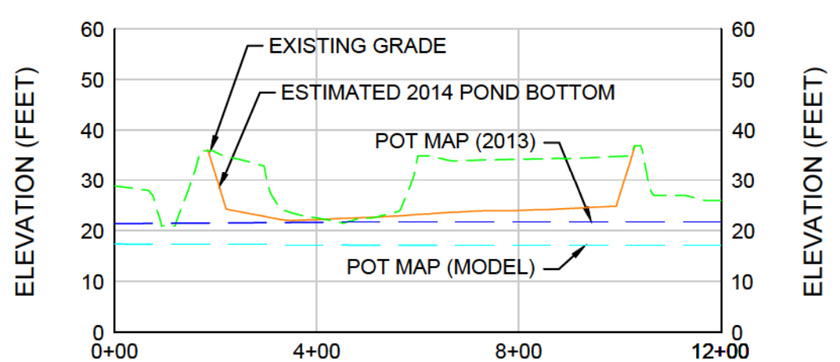
A/11 SECTION
UNIT 2 SLURRY POND
SCALE: 1" = 300' (HORIZONTAL) 1" = 30' (VERTICAL)
XREF: W-0-SC-585-00-F0006-047



C/11 SECTION
UNIT 2 SLURRY POND
SCALE: 1" = 300' (HORIZONTAL) 1" = 30' (VERTICAL)
XREF: W-0-SC-585-00-F0006-047



B/11 SECTION
UNIT 2 SLURRY POND
SCALE: 1" = 300' (HORIZONTAL) 1" = 30' (VERTICAL)
XREF: W-0-SC-585-00-F0006-047



D/11 SECTION
UNIT 2 SLURRY POND
SCALE: 1" = 300' (HORIZONTAL) 1" = 30' (VERTICAL)
XREF: W-0-SC-585-00-F0006-047

LEGEND

- EXISTING GRADE
- ESTIMATED POND BOTTOM (2014)
- POTENTIOMETRIC SURFACE (2013)
- POTENTIOMETRIC SURFACE MODEL AS IF PONDS ARE DRAINED

NOTES:

1. TOPOGRAPHIC SURVEY PROVIDED BY THOMAS & HUTTON DATED 06/29/11 AND REVISED ON 01/14/12.
2. COORDINATES AND DIRECTIONS SHOWN ON THIS DRAWING ARE BASED ON SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM (NAD83) (CORS) (INT'L FT). DISTANCES SHOWN ARE GROUND DISTANCES, NOT GRID DISTANCES.
3. ELEVATIONS ON THIS SURVEY ARE REFERENCED TO NGVD 1929 DATUM AS DERIVED FROM NGS MONUMENT PID#DD1957.

UNIT 2 SLURRY POND
-CCR IN PLACE-
SITE SECTIONS

0 300' 600'
HORIZONTAL SCALE IN FEET

0 30' 60'
VERTICAL SCALE IN FEET

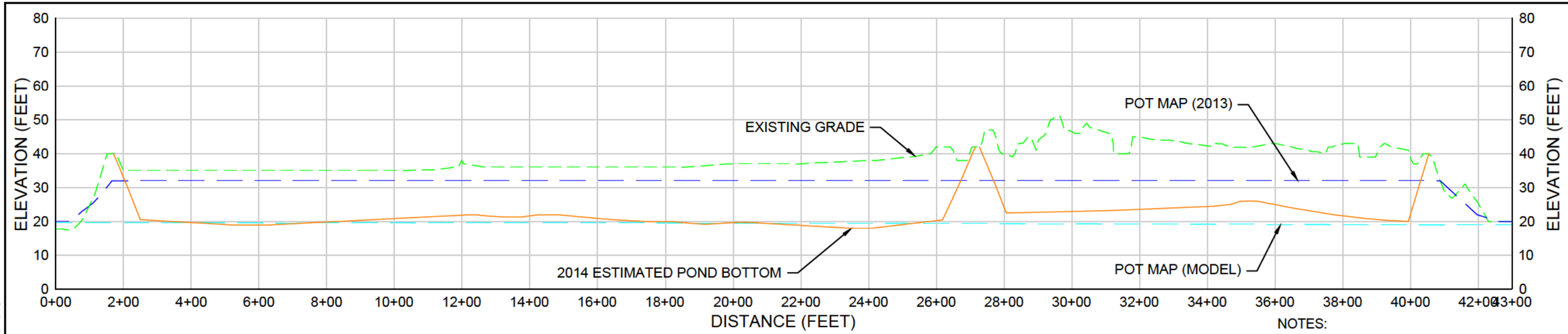
DRAFT WORK IN PROGRESS-FOR REVIEW ONLY

UNIT 2 SLURRY POND
-CCR IN PLACE-
SITE SECTIONS

Geosyntec consultants

PROJECT NO: GSC5242 | JUNE 2014 | FIGURE 16

M:\S\SANTEE COOPER\SANTEE COOPER-WINYAH\0006-WINYAH VOLUME CALCULATIONS-GSC5242\FIGURES\W-0-SC-585-00-F0006-047

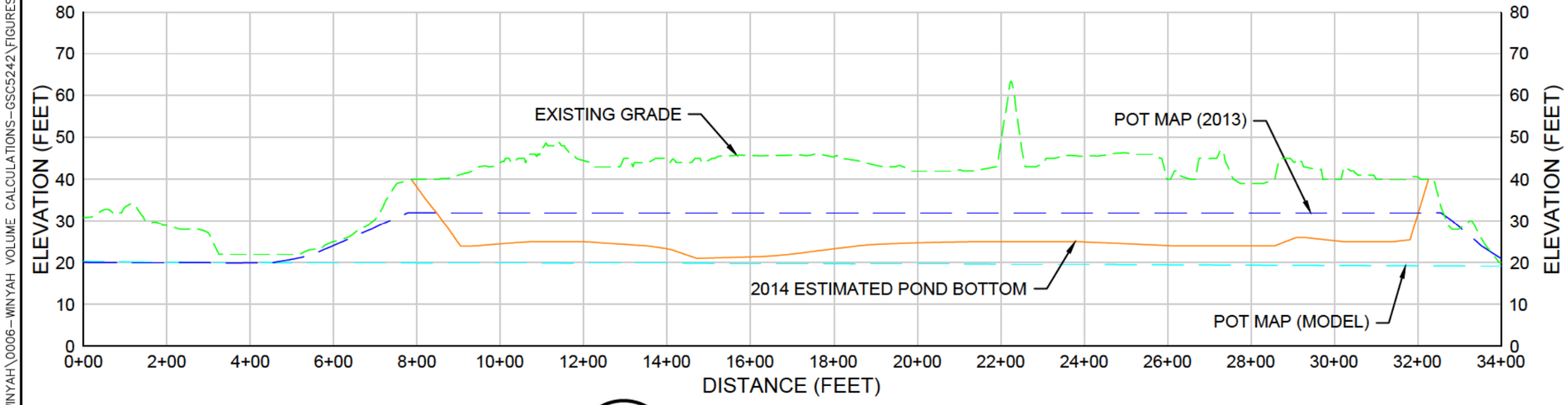


A/12 SECTION

ASH PONDS A & B

SCALE: 1" = 300' (HORIZONTAL) 1" = 30' (VERTICAL)

XREF: W-0-SC-585-00-F0006-048



B/12 SECTION

ASH PONDS A & B

SCALE: 1" = 300' (HORIZONTAL) 1" = 30' (VERTICAL)

XREF: W-0-SC-585-00-F0006-048

LEGEND

- EXISTING GRADE
- ESTIMATED POND BOTTOM (2014)
- POTENTIOMETRIC SURFACE (2013)
- POTENTIOMETRIC SURFACE MODEL AS IF PONDS ARE DRAINED

NOTES:

1. TOPOGRAPHIC SURVEY PROVIDED BY THOMAS & HUTTON DATED 06/29/11 AND REVISED ON 01/14/12.
2. COORDINATES AND DIRECTIONS SHOWN ON THIS DRAWING ARE BASED ON SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM (NAD83) (CORS) (INT'L FT). DISTANCES SHOWN ARE GROUND DISTANCES, NOT GRID DISTANCES.
3. ELEVATIONS ON THIS SURVEY ARE REFERENCED TO NGVD 1929 DATUM AS DERIVED FROM NGS MONUMENT PID#DD1957.

0 300' 600'

HORIZONTAL SCALE IN FEET

0 30' 60'

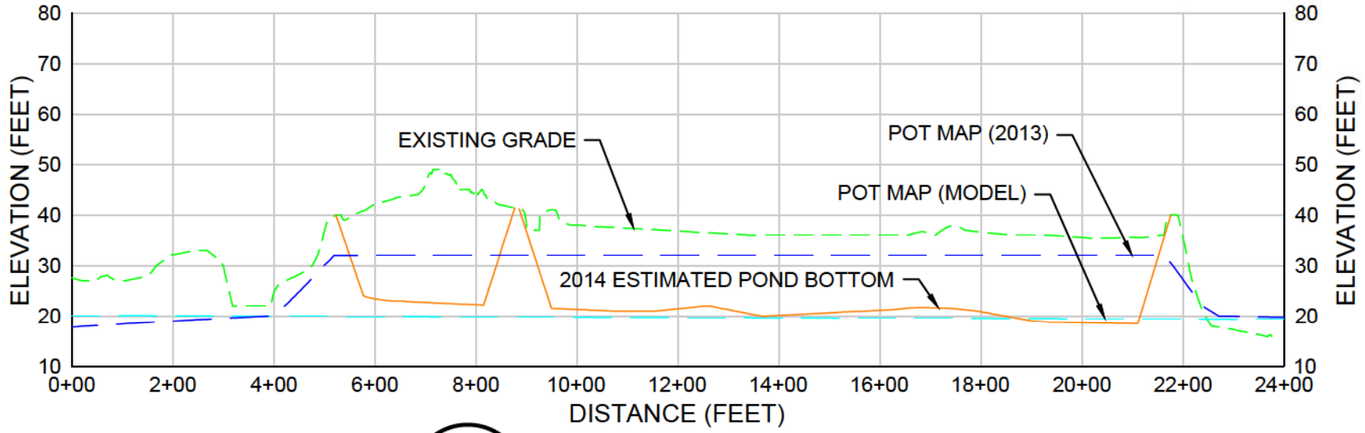
VERTICAL SCALE IN FEET

ASH POND A & B
-CCR IN PLACE-
SITE SECTIONS

DRAFT WORK IN PROGRESS-FOR REVIEW ONLY

ASH POND A & B -CCR IN PLACE- SITE SECTIONS	
Geosyntec consultants	FIGURE 17
PROJECT NO: GSC5242	JUNE 2014

M:\S\SANTEE COOPER\SANTEE COOPER-WINYAH\0006-WINYAH VOLUME CALCULATIONS-GSC5242\FIGURES\W-0-SC-585-00-F0006-048

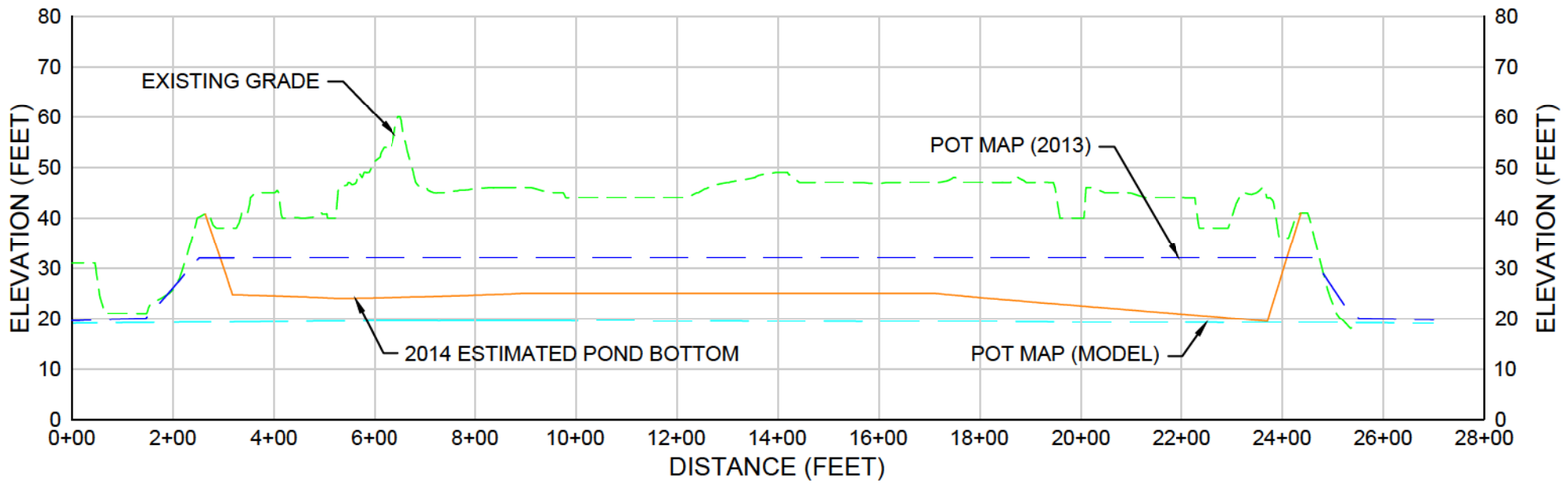


C/12 SECTION

ASH PONDS A & B

SCALE: 1" = 300' (HORIZONTAL) 1" = 30' (VERTICAL)

XREF: W-0-SC-585-00-F0006-048



D/12 SECTION

ASH PONDS A & B

SCALE: 1" = 300' (HORIZONTAL) 1" = 30' (VERTICAL)

XREF: W-0-SC-585-00-F0006-048

LEGEND

- EXISTING GRADE
- ESTIMATED POND BOTTOM (2014)
- POTENTIOMETRIC SURFACE (2013)
- POTENTIOMETRIC SURFACE MODEL AS IF PONDS ARE DRAINED

NOTES:

1. TOPOGRAPHIC SURVEY PROVIDED BY THOMAS & HUTTON DATED 06/29/11 AND REVISED ON 01/14/12.
2. COORDINATES AND DIRECTIONS SHOWN ON THIS DRAWING ARE BASED ON SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM (NAD83) (CORS) (INT'L FT). DISTANCES SHOWN ARE GROUND DISTANCES, NOT GRID DISTANCES.
3. ELEVATIONS ON THIS SURVEY ARE REFERENCED TO NGVD 1929 DATUM AS DERIVED FROM NGS MONUMENT PID#DD1957.

0 300' 600'

HORIZONTAL SCALE IN FEET

0 30' 60'

VERTICAL SCALE IN FEET

ASH POND A & B
-CCR IN PLACE-
SITE SECTIONS

DRAFT WORK IN PROGRESS-FOR REVIEW ONLY

ASH POND A & B -CCR IN PLACE- SITE SECTIONS		
Geosyntec consultants		FIGURE 18
PROJECT NO: GSC5242	JUNE 2014	

M:\S\SANTEE COOPER\SANTEE COOPER-WINYAH\0006-WINYAH VOLUME CALCULATIONS-GSC5242\FIGURES\W-0-SC-585-00-F0006-048