

**CLOSURE PLAN
PLANT CRISP ASH POND AND
SECONDARY ASH AREAS
CRISP COUNTY POWER COMMISSION
Worth County, Georgia**

Prepared for



Crisp County Power Commission

961 Power Dam Road
Warwick, GA 31796
(229) 535-6275

Prepared by

Geosyntec 
consultants

engineers | scientists | innovators

Georgia Certificate of Authorization
No. PEF000260, Exp. 06/30/2024

1255 Roberts Boulevard, Suite 200
Kennesaw, Georgia 30144
(678) 202-9500

Revision 6 - February 2024

CERTIFICATION

I certify under penalty of law that the information contained within this Closure Plan was prepared by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I do hereby certify that in my professional opinion that the applicable requirements of Section § 257.100-104 of the Federal Hazardous and Solid Waste Management System, Disposal of Coal Combustion Residuals from Electric Utilities, Final Rule (40 C.F.R. § 257) and Section (7).b of the Georgia Environmental Protection Division, Solid Waste Rule 391-3-4-.10 for Management of Coal Combustion Residuals (GA EPD CCR Rule) have been met.

Mehmet Iscimen, P.E.

Name

Signature

PE034164

Georgia P.E. License Number

23 February 2024

Date

17 October 2016

Initial Publication Date

23 February 2024 (Revision 6)

Latest Revision



TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	Site Location and Background	2
1.2	Purpose	4
2.0	CLOSURE PLAN	6
2.1	Closure by Removal	6
2.2	Groundwater Monitoring.....	10
2.3	Estimated Ash Volume and Extents	12
2.4	Estimated Closure Schedules	12
2.5	Deed Notification	13
2.6	Other Considerations and Requirements	14
2.7	Facility Contact	15
3.0	REFERENCES	16

LIST OF ACRONYMS

CCPC	Crisp County Power Commission
CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
CY	Cubic Yard
GA DNR	Georgia Department of Natural Resources
GA EPD	Georgia Environmental Protection Division
MSW	Municipal Solid Waste
MW	Megawatt
NPDES	National Pollutant Discharge Elimination System
RCRA	Resource Conservation and Recovery Act
USEPA	United States Environmental Protection Agency
USEPA CCR Rule	USEPA Rule for Disposal of Coal Combustion Residuals from Electric Utilities (40 C.F.R. § 257)
WWTS	Wastewater Treatment System

1.0 INTRODUCTION

Geosyntec Consultants (Geosyntec) of Kennesaw, Georgia, at the request of Crisp County Power Commission (CCPC), prepared this Closure Plan for the ash impoundment and secondary ash areas located at CCPC's Plant Crisp. Plant Crisp is located in Warwick, Georgia on the southern end of Lake Blackshear. CCPC has elected to close the surface impoundment by removal of CCR under 40 C.F.R. § 257.102(c). See also Georgia Environmental Protection Division (GA EPD), Solid Waste Rule 391-3-4-.10(7). This revision (Revision 6) supplements the closure plan that was certified on April 30, 2020 and approved by GA EPD on June 25, 2020 for a state permit for its existing coal combustion residual (CCR) surface impoundment and handling of solid waste to implement the original October 2016 closure plan providing for closure by removal of CCR for CCPC's 6.5 acre ash pond. GA EPD issued Permit 159-007D to CCPC for the handling and removal of CCR on August 17, 2020. Modifications herein were prepared to address two former ash disposal areas (i.e., secondary ash areas) which were recently discovered. Secondary Ash Areas 1 and 2 encompass approximately 0.9 acres to the west and 3.4 acres to the south of the ash pond, respectively. In accordance with 40 C.F.R. § 257.102 as incorporated by GA DNR Rule 391-3-4-.10(7), this closure plan provides: (i) a narrative description of how the CCR units will be closed in accordance with this section; (ii) a description of the procedures to remove the CCR and decontaminate the CCR units; (iii) an estimate of the maximum inventory of CCR on-site over the active life of the CCR units; and (iv) a schedule for completing the activities necessary to satisfy the closure criteria in this section, including an estimate of the year in which the closure activities for the CCR units will be completed (40 C.F.R. § 257.102(b)).¹ GA EPD approved the CCR Management Plan for

¹ 40 C.F.R. § 257.102(f)(2)(i), incorporated by reference at DNR Rule 391-3-4-.10(7) provides: *Extensions of closure timeframes.* The timeframes for completing closure of a CCR unit specified under paragraphs (f)(1) of this section may be extended if the owner or operator can demonstrate that it was not feasible to complete closure of the CCR unit within the required timeframes due to factors beyond the facility's control. If the owner or operator is seeking a time extension beyond the time specified in the written closure plan as required by paragraph (b)(1) of this section, the demonstration must include a narrative discussion providing the basis for additional time beyond that specified in the closure plan. Factors that may support such a demonstration include: (A) Complications stemming from the climate and weather, such as unusual amounts of precipitation or a significantly shortened construction season; (B) Time required to dewater a surface impoundment due to the volume of CCR contained in the CCR unit or the characteristics of the CCR in the unit; (C) The geology and terrain surrounding the CCR unit

the Crisp County Municipal Solid Waste (MSW) Landfill on March 28, 2019 authorizing receipt of CCR which establishes CCR management volumes. CCPC has developed the schedule herein based upon the receipt volumes at the Crisp County MSW Landfill.

The ash pond and the secondary ash areas will be closed by removal of CCR and proper disposal in the GA EPD approved Crisp County MSW Landfill.

1.1 Site Location and Background

Plant Crisp is a dual-fuel (coal and natural gas) electrical generation facility, with a 12.5 megawatt (MW) capacity coal-fired unit and 5 MW capacity natural gas combustion turbine. Coal Combustion Residuals (CCR) are byproducts of coal combustion. The United States Environmental Protection Agency (USEPA) has determined that CCR constitutes solid waste under Subtitle D of the Resource Conservation and Recovery Act (RCRA) [USEPA Rule for Disposal of Coal Combustion Residuals from Electric Utilities, 80 Fed. Reg. 21302 (Apr. 17, 2015)], as amended.²

Onsite, CCR was disposed into an ash impoundment (or ash pond) using a wet sluicing method. Constructed in the mid-1970s, as an unlined pond [CDM Smith, 2014], the ash pond started to receive sluiced ash in 1976. Due to changes in plant operations and utilization of the natural gas unit, coal burning and resulting ash sluice water generation has been minimal in recent

will affect the amount of material needed to close the CCR unit; or (D) Time required or delays caused by the need to coordinate with and obtain necessary approvals and permits from a state or other agency. State approvals as a precondition and requirement prior to implementation of this closure plan and removal, handling, and disposal of CCR include GA DNR Rule 391-3-4-.10(9) and GA DNR Rule 391-3-4-.07(5).

² Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals From Electric Utilities; Amendments to the National Minimum Criteria (Phase One, Part One), 83 Fed. Reg. 36,435 (July 30, 2018); Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals From Electric Utilities; Extension of Compliance Deadlines for Certain Inactive Surface Impoundments; Response to Partial Vacatur 81 Fed. Reg. 51,838 (Aug. 5, 2016) (addressing prior provisions at 40 C.F.R. § 257.100, inactive and active units). The GA EPD CCR Rule has incorporated by reference the USEPA CCR Rule as provided in 80 Fed. Reg. 21468 (April 17, 2015); as amended at 80 Fed. Reg. 37988 (July 2, 2015) and 81 Fed. Reg. 51807 (August 5, 2016). The Federal CCR Rule amendments of July 30, 2018 and August 28, 2020 have been incorporated by reference into the State CCR Rule and became effective on April 11, 2022 [391-3-4-.10(1)(c)]. GA EPD implements portions of the USEPA CCR Rule which have been repealed or modified.

years.³ The last coal burning and resulting sluicing operation prior to the October 2016 initial closure plan was conducted in August 2015. The coal burn unit was briefly re-activated from December 2016 to March 22, 2017 to address a small amount of remaining coal unable to be sold or transported.

Recently, two additional areas were identified as potentially receiving CCR during plant operations – Secondary Ash Area 1, an area northwest of the ash pond, and Secondary Ash

³ CCPC’s AP was legally categorized as an inactive CCR impoundment under original regulatory definitions in the USEPA CCR Rule, which was effective on October 19, 2015 and provides that an “inactive CCR surface impoundment means a CCR surface impoundment that no longer receives CCR on or after October 19, 2015 and still contains both CCR and liquids on or after October 19, 2015 [Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities; Final Rule 80 Fed. Reg. 21301, 21469 (April 17, 2015). See also technical corrections, July 2, 2015 (80 Fed. Reg. 37988)]. These original regulatory definitions have not changed since the original federal rule was published. Litigation respecting the CCR rules, specifically requirements for active, inactive, and existing surface impoundments resulted in modifications to final rules. See *USWAG v. USEPA*, No. 15-1219 (Aug. 21, 2018). USEPA first promulgated the Coal Combustion Residual (CCR) rule on April 17, 2015 (80 Fed. Reg. 21301). On June 14, 2016 the United States Court of Appeals for the D.C. Circuit ordered the vacatur of Inactive impoundment provisions in the 2015 rule at 40 C.F.R. § 257.100. As USEPA stated in the preamble to regulations adopted by GA EPD, the effect of the vacatur is that “all inactive CCR surface impoundments must now comply with all of the requirements applicable to existing CCR surface impoundments.” The resulting regulatory revisions for inactive impoundments deleting provisions exempting such CCR units which completed closure prior to April 17, 2018 from all other requirements of the CCR Rule. See former 40 C.F.R. § 257.100(b). A direct final rule addressing the change in requirements for “inactive” CCR surface impoundments and extending deadlines for “inactive” CCR surface impoundments was issued on August 5, 2016 (81 Fed. Reg. 51802), with final revisions recognizing Participating and Non-Participating States on July 30, 2018 (83 Fed. Reg. 36435). Georgia adopted its CCR rule, incorporating certain portions of the 2015 federal rules by reference and certain amendments issued August 5, 2016 and effective November 22, 2016. GA EPD incorporated 80 Fed. Reg. 21468 (April 17, 2015); as amended at 80 Fed. Reg. 37988 (July 2, 2015) and 81 Fed. Reg. 51807 (August 5, 2016 – effective November 22, 2016), with amendments effective March 28, 2018. GA EPD also adopted technical corrections to the Federal Rule issued July 2, 2015 (80 Fed. Reg. 37988). The Federal CCR Rule amendments of July 30, 2018 and August 28, 2020 have been incorporated by reference into the State CCR Rule and became effective on April 11, 2022 [391-3-4-.10(1)(c)].

CCPC’s notification letter of October 17, 2016 notified GA EPD of closure in accordance with regulatory provisions for existing ash impoundments notwithstanding the fact that it was an inactive impoundment on the date of its notification. After GA EPD’s November 22, 2016 issuance of rules changing the regulatory requirements for closure of the Plant Crisp AP, an additional small amount of CCR material was produced from December 2016 to March 22, 2017 to address remaining coal unable to be sold or transported. Accordingly, the AP is now legally defined as an “existing CCR surface impoundment” which means “a CCR surface impoundment that receives CCR both before and after October 19, 2015, or for which construction commenced prior to October 19, 2015 and receives CCR on or after October 19, 2015” (40 C.F.R. § 257.53, 80 Fed. Reg. at 21470). The AP is no longer receiving CCR wastes and has been slated for closure. GA EPD approved the CCR Management Plan for the Crisp County Municipal Landfill on March 28, 2019.

Area 2, an area south of the ash pond. Shown in Figure 1, the electrical generation facility, ash pond, secondary ash areas, and hydroelectric dam are located on approximately 100 acres of CCPC property near Lake Blackshear and the Flint River. The ash pond itself is approximately 6.5 acres, with embankments on the western and partially southern and northern sides. The maximum embankment height is near where the western and northern dikes meet and is approximately 22 feet high [Rizzo Associates, 2015]. The Plant Crisp ash pond was classified as a low hazard unit during the USEPA’s coal combustion residuals impoundment assessment, dated February 2014 and conducted by CDM Smith [CDM Smith, 2014] and confirmed by Rizzo Associates in 2015. Rizzo Associates and Geosyntec Consultants have conducted the annual inspections. The Secondary Ash Areas 1 and 2 encompass approximately 0.9 and 3.4 acres (area within the CCR limits), respectively. They are located on undeveloped land that is either naturally forested or landscaped grass fields. The thickness of CCR encountered in secondary ash areas generally ranges from a few inches up to approximately 8 feet.

1.2 Purpose

Disposal of certain CCR in landfills and surface impoundments and the safe operation and closure of these facilities are now regulated under the final USEPA CCR Rule, 40 C.F.R. Part 257, which was published on 17 April 2015 and went into effect on 19 October 2015. The Georgia Environmental Protection Division, which administers solid waste management and disposal provisions in Georgia, developed regulations relating to CCR landfills, surface impoundments, and expansions codified at GA EPD Solid Waste Rule, Section 391-3-4-.10 (“GA EPD CCR Rule”) effective November 22, 2016. This closure plan has been developed in accordance with both GA EPD Rules and USEPA CCR Rule. The GA EPD CCR Rule has incorporated by reference the Federal CCR Rule as provided in 80 Fed. Reg. 21468 (April 17, 2015) and as amended at 80 Fed. Reg. 37988 (July 2, 2015), 81 Fed. Reg. 51807 (August 5, 2016), 83 Fed. Reg. 36451 (July 30, 2018), and 85 Fed. Reg. 53561 (August 28, 2020), adopted by GA EPD and effective on April 11, 2022 [391-3-4-.10(1)(c)].

In accordance with USEPA’s CCR Rule, “existing” CCR surface impoundments and new surface impoundments, as defined at 40 C.F.R. § 257.53 and GA DNR Rule 391-3-4-.10(2), which will undergo closure must develop an initial written closure plan by October 2016 that

describes the steps necessary to close the CCR unit at any point during the active life of the CCR unit consistent with recognized and generally accepted good engineering practices [40 C.F.R. § 257.102(b)(2)]. Note, however, at the time of the original 17 October 2016 closure plan, CCPCs ash pond was an inactive impoundment under the USEPA CCR Rule. This preceded the GA EPD Rules which became effective on November 22, 2016. In accordance with GA EPD Rules, additional revisions were made to address state regulatory issues and comments from GA EPD to process CCPC's November 19, 2018 application for a state permit for its existing CCR surface impoundments and handling of solid waste to implement the closure plan for CCPC's 6.5 acre ash pond pursuant to 391-3-4.10(9) and constitutes revision of the original 17 October 2016 initial closure plan. Modifications herein address regulatory changes, guidance, state or GA EPD provisions, guidance, and comments but also inclusion of the secondary ash areas in the Closure Plan.

For ash ponds which the owner/operator elects to close, or those requiring closure pursuant to 40 C.F.R. § 257, Section 102(b) states that *“the owner or operator of a CCR unit must prepare a written closure plan that describes the steps necessary to close the CCR unit at any point during the active life of the CCR unit consistent with recognized and generally accepted good engineering practices.”* The purpose of this document is to provide the written closure plan for the ash pond as well as secondary ash areas at Plant Crisp.

In addition to the closure plan, 40 C.F.R. § 257.104 outlines the requirements for a written post-closure plan. 40 C.F.R. § 257.104(a)(2) states that *“An owner or operator of a CCR unit that elects to close a CCR unit as provided by 40 C.F.R. § 257.102(c) is not subject to the post-closure care criteria under this section.”* Since CCPC will be closing the ash pond and secondary ash areas under 40 C.F.R. § 257.102(c), closure by removal of CCR, post closure care and a written post-closure plan is not required for Plant Crisp Ash Pond Closure. 40 C.F.R. § 257.102(c) applies to owners and operators which elect closure by removal, as CCPC has done for the ash pond and secondary ash areas.

2.0 CLOSURE PLAN

Criteria for conducting closure of the ash pond and secondary ash areas are detailed in 40 C.F.R. § 257.102. In 40 C.F.R. § 257.102(a), two alternatives are presented for closure of CCR units, specifically:

Closure of a CCR landfill, CCR surface impoundment, or any lateral expansion of a CCR unit must be completed either by leaving the CCR in place and installing a final cover system or through removal of the CCR and decontamination of the CCR unit.

CCPC conducted a feasibility assessment and elected “closure by removal of CCR and decontamination of the CCR unit” as the closure method for the units. CCPC has properly disposed of the CCR removed from the ash pond at the local Crisp County MSW Landfill permitted to receive CCR and in accordance with GA DNR Rules and Permit. CCR from the secondary ash areas were managed and disposed of in the same manner. Details of this closure method is presented in Section 2.1.

2.1 Closure by Removal

To remove the CCR and decontaminate the units, the following steps has been or will be completed:

- Installation of Groundwater Monitoring System in accordance with 40 C.F.R. § 257.91.
- Ash Characterization and Vertical Delineation:
Hand-augers were used to delineate ash thickness within the accessible areas of the ash pond. Total depth of ash at these locations were recorded to create an ash thickness map. Representative samples (combination of ash and underlying base material) were collected and sent to a laboratory for material characterization for landfill disposal. The laboratory testing results were provided to the Crisp County MSW Landfill for coordination of ash disposal. Test pits, hand augers, and shovels were used to delineate ash limits and thickness at secondary ash areas.

- Mobilization and Site Preparation:

This step includes mobilization of the contractor to the site, installation of erosion and sediment control measures, removal of vegetation present within the CCR units, and establishing the general site setup.

- Dewatering of Free Liquids:

If there is a build-up of free liquids in the ash pond and secondary ash areas due to precipitation, they will be removed prior to or during the excavation of the CCR. Free liquids or other dewatering-activity waters generated will be allowed to remain within the ash pond or secondary ash area limits, removed by natural evaporation to the extent they do not become a nuisance, restrict work activities, or result in pond discharge. For nuisance conditions or work disruptions from water not able to evaporate in a timely manner, the water will be managed as stated below.

- Water Management:

During construction and prior to CCR removal, contact water (i.e., runoff generated from areas of exposed CCR) will be managed within the ash pond and secondary ash areas using temporary containment ponds/sediment traps, and direct discharge from these features will not be permitted. Contact water will be pumped to the on-site wastewater treatment system (WWTS) for treatment and discharge to Flint River through Outfall 001 in accordance with the Ash Pond Dewatering Plan [Geosyntec, 2021] approved by GA EPD on September 13, 2021 and National Pollutant Discharge Elimination System (NPDES) Individual Permit No. GA0050314 issued by GA EPD on October 27, 2021. Water will be treated in accordance with the permit prior to discharge. Upon completion of CCR removal, stormwater will no longer be conveyed to the on-site WWTS, and discharge from the temporary containment ponds/sediment traps will be permitted in accordance with NPDES General Permit No. GAR100001 for Storm Water Discharges Associated with Construction Activities for Stand Alone Construction Projects, effective August 1, 2018. The restoration grades presented in the

closure drawings [Geosyntec, 2024a] are intended to promote positive drainage of stormwater in the final conditions.

- Excavation of CCR:

Mechanical methods (excavators, front-end loaders, etc.) will be used for excavation. Excavation will be continued until the CCR are removed from the ash pond and secondary ash areas. A minimum of 6 inches of underlying soils will also be removed. Excavation will be generally executed from high to low elevations. Perimeter dikes will not be breached until the ash and underlying 6-inches of soil have been removed. Additional berms and perimeter controls will be installed to manage run-on and runoff at the secondary ash areas.

- Dewatering of CCR:

If the excavated CCR is too wet to transport and dispose of in the MSW landfill, the moisture content will be reduced by primarily using windrowing method. If windrowing method is not effective to reduce the moisture content to the desired levels, absorbent desiccation (i.e., lime or cement addition) or other drying methods may be utilized as necessary. Materials and methods that may alter the groundwater chemistry will be avoided. Procedures outlined in the Fugitive Dust Control Plan [Geosyntec, 2022] and any subsequent amendments will be used during excavation and dewatering of CCR to mitigate any fugitive dust concerns.

- Transport and Disposal of CCR:

The removed ash, at an acceptable moisture content, will be loaded into conventional haul trucks using mechanical methods and will be transported to the Crisp County MSW Landfill for disposal. The range of the acceptable moisture content of removed ash will be defined using the following criteria: (i) a lower bound to prevent fugitive dust generation; and (ii) an upper bound to prevent bleeding of water during transportation. Haul trucks will be equipped with an adequate cover over the CCR for fugitive dust control. A construction entrance/exit will be designed and maintained to eliminate CCR

carried offsite on haul truck wheels, and haul trucks will be inspected prior to leaving the site.

- Verification of CCR Removal:

Visual methods will be used for verification of the CCR removal. Maps of the ash pond and secondary ash areas using a 100-foot grid spacing will be prepared with unique alphanumeric label for reference and documentation of CCR removal. Observations will be made with reference to the ash pond and secondary ash areas grid maps and will include, but not be limited to, taking photographs and describing soil color. Experience at the Site indicates that there is a distinct color difference between CCR and the underlying soils that supports reliable visual verification of CCR removal. The 100-foot grid map and photos documenting removal of ash will be included in the closure report.

- Site Grading and Stabilization:

Once the CCR removal is complete, the dikes of the ash pond and berms and ditches of the secondary ash areas will be lowered or removed, and the site will be graded to provide positive drainage and to mimic the pre-development topography to the extent practical. Native vegetation will be re-established to stabilize the exposed areas and to prevent future erosion. As soon as practical after final grading, the contractor will take necessary steps to establish a protective vegetative cover of acceptable grasses over disturbed areas of the site. These steps shall include seeding, mulching, and any necessary fertilization at a minimum, and may include additional activities such as sodding of steeper slopes and drainage ways if necessary. Temporary erosion control blankets may be used, if necessary, to provide seedbed protection and prevent wash-out of seed and fertilizer during vegetation establishment.

CCR removal and decontamination of the ash pond and secondary ash areas will be complete when all visible ash and 6 inches of underlying soils within the CCR unit have been removed, post-removal site grading and stabilization is performed, and per 40 C.F.R. § 257.102(c) “groundwater monitoring concentrations do not exceed the groundwater protection standard

established pursuant to 40 C.F.R. § 257.95(h) for constituents listed in Appendix IV of the CCR Rule.”

2.2 Groundwater Monitoring

Pursuant to the Rules of Solid Waste Management, Chapter 391-3-4-.10 (6), CCPC prepared a Groundwater Monitoring and Statistical Analysis Plan [Geosyntec, 2024b] and installed a groundwater monitoring system consisting of four wells for the ash pond (MW-D1, MW-D2, MW-D3, and MW-U1) within the uppermost aquifer beneath the Site. In order to establish groundwater protection standards and in conjuncture with 40 C.F.R. § 257.90, CCPC collected baseline groundwater monitoring data with eight independent sampling events from the four groundwater monitoring wells presented in **Figure 1**. The results were analyzed for Appendix III and IV constituents.⁴ Within 90 days after completing the sampling and analysis, the groundwater results were evaluated to determine if there has been a statistically significant increase over background concentrations for any constituent in any well. Appendix III and IV constituents are shown below.

Appendix III – Detection Monitoring Constituents

- Boron
- Calcium
- Chloride
- Fluoride
- pH
- Sulfate
- Total Dissolved Solids (TDS)

Appendix IV – Assessment Monitoring Constituents

- Antimony
- Arsenic

⁴ Existing and new surface impoundments are required to comply with the provisions of 40 C.F.R. § 257.90(b), groundwater monitoring, no later than 17 October 2017.

- Barium
- Beryllium
- Cadmium
- Chromium
- Cobalt
- Fluoride
- Lead
- Lithium
- Mercury
- Molybdenum
- Selenium
- Thallium
- Radium 226 and 228 combined

Following the statistically analysis, CCPC started a detection and assessment monitoring program in accordance with 40 C.F.R. § 257.94 and § 257.95.

In 2022, seven new groundwater monitoring wells (MW-D4, MW-D5, MW-D6, MW-D7, MW-D8, MW-D9, and MW-U2) were installed for the secondary ash areas (**Figure 1**), which will be used to monitor the groundwater quality around the secondary ash areas as described above. CCR removal and decontamination of the ash pond and secondary ash areas will be complete when groundwater monitoring concentrations at the Site do not exceed the groundwater protection standards established pursuant to § 257.95(h) for constituents listed in Appendix IV. In accordance with the Georgia Water Well Standards Act (O.C.G.A. § 12-5-120), at least once every five years, the owner of the property on which a monitoring well is constructed will have the monitoring wells inspected by a professional engineer or professional geologist, who will direct appropriate remedial corrective work to be performed if the well does not conform to standards.

Further details of the groundwater monitoring program are included in the Groundwater Monitoring and Statistical Analysis Plan [Geosyntec, 2024b] and any subsequent amendments.

2.3 Estimated Ash Volume and Extents

As presented in **Figure 1**, the ash pond at Plant Crisp covers approximately 6.5 acres. Secondary Ash Area 1 is approximately 0.9 acres, and Secondary Ash Area 2 is approximately 3.4 acres. The estimated extents of the CCR are outlined in the closure drawings [Geosyntec, 2024a]. The CCR and top 6 inches native soil (minimum) beneath the CCR will also be removed as part of the “decontamination” process and disposed of at the Crisp County MSW Landfill. The CCR and native soil volumes are estimated as follows:

	Volume of CCR (CYs)	Volume of Native Soil (CYs)	Total Volume (CYs)
Ash Pond*	91,532	17,445	108,977
Secondary Ash Area 1*	5,100	1,800	6,900
Secondary Ash Area 2*	16,300	4,800	21,100

* Actual removal volume

2.4 Estimated Closure Schedules

The following is an estimated schedules for the closure of the Plant Crisp ash pond and secondary ash areas by removal of CCR:

- Notification of Intent to Close
 - Ash Pond: Year 2020
 - Secondary Ash Areas: Year 2022
- Mobilization and Site Preparation
 - Ash Pond: Year 2021
 - Secondary Ash Areas: Year 2023
- Closure Construction⁵
 - Ash Pond: Year 2021 to Year 2023
 - Secondary Ash Areas: Year 2024

⁵ Per 40 CFR § 257.102 (f), the allowable time frame for Plant Crisp Ash Pond closure is 5 years of commencing closure activities with up to an additional 2 years of an extension, if qualified.

- Submit a Certification Report Documenting the CCR Removal to GA EPD
 - Upon completion of CCR removal
- Notification of CCR Unit Closure
 - Upon demonstrating groundwater monitoring concentrations at the Site do not exceed the applicable Federal and State groundwater protection standards

2.5 Deed Notification

40 CFR §257.102(i) states:

Deed notations:

(1) Except as provided by paragraph (i)(4) of this section, following closure of a CCR unit, the owner or operator must record a notation on the deed to the property, or some other instrument that is normally examined during title search.

(2) The notation on the deed must in perpetuity notify any potential purchaser of the property that:

(i) The land has been used as a CCR unit; and

(ii) Its use is restricted under the post-closure care requirements as provided by §257.104(d)(1)(iii).

(3) Within 30 days of recording a notation on the deed to the property, the owner or operator must prepare a notification stating that the notation has been recorded. The owner or operator has completed the notification when it has been placed in the facility's operating record as required by §257.105(i)(9).

(4) An owner or operator that closes a CCR unit in accordance with paragraph (c) of this section (i.e., Closure by Removal) is not subject to the requirements of paragraphs (i)(1) through (3) of this section.

Since the closure of the unit will be performed in accordance with 40 C.F.R. § 257.102(c) (i.e., Closure by Removal), a deed notification is not required in accordance with paragraph (4) of this section.

2.6 Other Considerations and Requirements

- Since closure by removal is selected as the closure method, no specific, low-permeability cover system will be installed. As previously indicated, the site will be re-graded for positive drainage and stabilized for erosion control following removal of the CCR.
- CCPC will maintain the Closure Plan in the facility's operating record as required by 40 C.F.R. § 257.105(i).
- No later than the date CCPC initiates closure of the ash pond and secondary ash areas, CCPC will prepare a notification of intent to close the ash pond and secondary ash areas. CCPC will maintain the notification in the facility's operating record as required by 40 C.F.R. § 257.105(i)(7).
- Upon completion of the closure of the ash pond and secondary ash areas, CCPC will obtain a certification from a qualified professional engineer verifying that closure has been completed in accordance with the closure plan and submit a closure report to GA EPD.
- Within 30 days of completion of closure of the ash pond and secondary ash areas, CCPC will prepare a notification of closure of a CCR unit. The notification will include the certification by a qualified professional engineer. CCPC will maintain the notification in the facility's operating record as required by 40 C.F.R. §257.105(i)(8).

2.7 Facility Contact

The primary contact for Plant Crisp is as follows:

Ronnie Miller, Manager of Production
(229-322-2842)
rmiller@crispcountypower.com
202 S. 7th Street, PO Box 1218
Cordele, GA 31010

3.0 REFERENCES

CCPC. (2016), “Proposal for Plant Crisp Ash Disposal Area Closure Feasibility Study”, e-mail correspondence on August 3, 2016.

CDM Smith. (2014). “Assessment of Dam Safety of Coal Combustion Surface Impoundments – Final Report: Crisp County Power Commission Plant Crisp Warwick, Georgia.” Prepared for U.S. Environmental Protection Agency Washington, D.C., Rev. 1, February 2014.

Geosyntec Consultants. (2021). “Ash Pond Dewatering Plan, NPDES Permit No. GA0050314, Plant Crisp Ash Pond.” Prepared for Crisp County Power Commission, September 2021.

Geosyntec Consultants. (2022). “Fugitive Dust Control Plan, Crisp County Power Commission, Plant Crisp Ash Pond.” Prepared for Crisp County Power Commission, September 2016, amended in August 2022 (Revision 3).

Geosyntec Consultants. (2024a). “Ash Pond and Secondary Ash Areas 1 and 2 Closure and Site Restoration Drawings, Plant Crisp.” Prepared for Crisp County Power Commission, August 2022, amended in February 2024 (Revision 5).

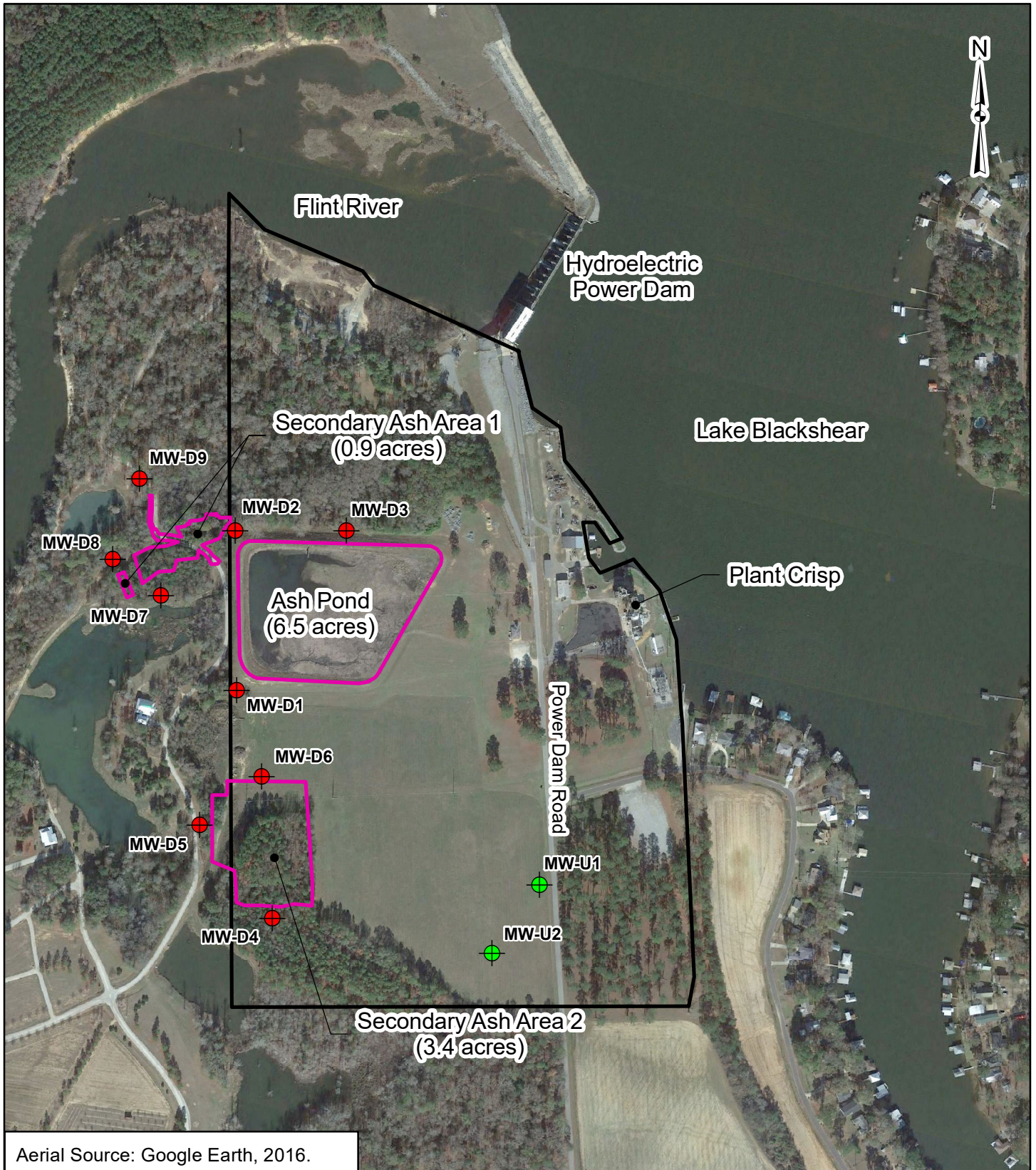
Geosyntec Consultants. (2024b). “Groundwater Monitoring and Statistical Analysis Plan, Plant Crisp Ash Pond and Secondary Ash Areas.” Prepared for Crisp County Power Commission, October 2017, amended in February 2024 (Revision 3).

Kemron Environmental Services. (2022). “Delineation of Secondary Ash Area 1 Revision 2, Plant Crisp.” Prepared for Crisp County Power Commission, June 2022.

Kemron Environmental Services. (2022). “Delineation of Secondary Ash Area 2 Revision 3, Plant Crisp.” Prepared for Crisp County Power Commission, June 2022.

Rizzo Associates. (2015). “Dam Safety Assessment Report Plant Crisp Coal Combustion Waste Impoundment.” Submitted to Crisp County Power Commission, 14-5232, Rev. 0, January 2015.

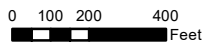
USEPA. (2015). “Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments,” Title 40 Code of Federal Regulations, Pt. 257, April 2015.



Aerial Source: Google Earth, 2016.



- Legend**
- Downgradient Well
 - Upgradient Well
 - Plant Crisp Property Boundary
 - Approximate Limits of Ash



Plant Crisp Groundwater Well Locations
Crisp County Power Commission
Warwick, Georgia

Geosyntec
consultants

KENNESAW, GA

DATE:	23 February 2024
PROJECT NO.	GW8836
DOCUMENT NO.	
FILE NO.	FINALGWPLAN.MXD
FIGURE NO.	1