CLOSURE PLAN

NEW FGD POND
WILLIAMS STATION
GOOSE CREEK, SOUTH CAROLINA

Prepared For:

DOMINION ENERGY SOUTH CAROLINA, INC.
COLUMBIA, SOUTH CAROLINA

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1.0 INTRODUCTION

The A.M. Williams Station (Williams Station) is a coal-fired power generation station located in Goose Creek, South Carolina that is owned by South Carolina Generating Company (SCGENCO) and operated by Dominion Energy South Carolina, Inc. (DESC). Williams Station infrastructure includes a flue gas desulfurization (FGD) air quality control system that produces an FGD wastewater blowdown waste stream that is managed in the on-site New FGD Pond in accordance with South Carolina Department of Health and Environmental Control (SCDHEC) regulations and permits. The New FGD Pond is also regulated as a Coal Combustion Residuals (CCR) Surface Impoundment per Title 40 Code of Federal Regulations (CFR), Part 257(§257), Subpart D published in April 2015 by the United States Environmental Protection Agency (USEPA). Upon closure of the New FGD Pond, the closure requirements defined in §257.102 for CCR surface impoundments must be met which includes closing the CCR unit in accordance with the Closure Plan or as amended.

2.0 SITE DESCRIPTION

The Williams Station is a 650 MW coal-fired electric generating station located at 2242 Bushy Park Road in Goose Creek, Berkeley County, South Carolina (refer to Figure 1). The station is generally positioned within a small strip of lowlands between meanders of the Back River (west) and the Cooper River (east) as depicted on Figure 2. The station property is bound by Bushy Park Road to the west and tidal wetlands and/or lowlands border the remainder of the property. The Williams Station wastewater management impoundment complex, comprised of six interconnected separate ponds labeled Ponds A through E and the Coal Pile Runoff Pond, is located north of main station structures (refer to Figures 3 and 4).

The New FGD Pond is located within the boundaries of the wastewater management impoundment complex at the Williams Station facility. In May of 2021, the original FGD Pond was closed and the New FGD Pond opened in accordance with the CCR Rule requirements. Figures 2 and 3 depict the location of the New FGD Pond, as well as the former pond designations, in relation to Williams Station and the wastewater management impoundment complex, respectively. The New FGD Pond is comprised of two approximate 700,000 gallon forebays (identified as Forebay 1 and Forebay 2) or a total of approximately 2 acres. Each forebay was constructed with a composite liner system comprised of the following, from bottom to top:

- 18-inch thick compacted clay soil liner (CCL);
- 60-mil textured HDPE geomembrane liner;
- 28-ounce per square yard geotextile cushion; and,
- 6-inch thick fabric formed concrete protection layer.

The only waste stream placed in the New FGD Pond is wet FGD blowdown from the FGD system. The FGD blowdown contains residual gypsum solids that are discharged from the secondary hydrocyclone overflows and pumped to the operating forebay of the New FGD Pond. Each FGD forebay allows the gypsum solids to settle and provide temporary storage until removed, dewatered, and disposed in the Williams Station Highway 52 Landfill. A solids removal treatment system (i.e., Lamella clarifier with one filter press) is used to remove solids prior to discharge to

the New FGD Pond. The New FGD Pond is permitted to receive approximately 0.319 million gallons a day (MGD) of wastewater which is the same as the original FGD Pond. There are no non-CCR waste streams discharged to or placed in the New FGD Pond. The New FGD Pond discharges to Pond D which flows into Pond E and then to the National Pollutant Discharge Elimination System (NPDES) permitted outfall in accordance with SCDHEC NPDES Permit SC0003883 (effective January 1, 2017).

3.0 CRITERIA FOR CONDUCTING THE CLOSURE OR RETROFIT OF CCR UNITS §257.102

The applicable sections of §257.102 are presented below in bold, italic font. The responses follow each section of the rule and are provided in normal font.

3.1 WRITTEN CLOSURE PLAN §257.102(B)

3.1.1 CONTENT OF THE PLAN §257.102(B)(1)

(b) Written closure plan-(1) Content of the plan. 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 written closure plan must include, at a minimum, the information specified in paragraphs (b)(1)(i) through (vi) of this section.

(b)(1)(i) A narrative description of how the CCR unit will be closed in accordance with this section.

(b)(1)(ii) If closure of the CCR unit will be accomplished through removal of CCR from the CCR unit, a description of the procedures to remove the CCR and decontaminate the CCR unit in accordance with paragraph (c) of this section.

The New FGD Pond will be closed by removal of CCR and decontamination of the CCR Unit as described Section 3.2.

(b)(1)(iv) An estimate of the maximum inventory of CCR ever on-site over the active life of the CCR unit.

The maximum inventory of CCR on-site is estimated to be approximately 3,500 cubic yards in each of the two settling bays (7,000 cubic yards total). This volume represents the forebays being filled to the maximum pool level. Because routine maintenance and operation of the pond periodically removes accumulated CCR for landfill disposal, this maximum volume is not likely to be reached.

(b)(1)(v) An estimate of the largest area of the CCR unit ever requiring a final cover as required by paragraph (d) of this section at any time during the CCR unit's active life.

The New FGD Pond will be closed by CCR removal and final cover is not required. The FGD Pond disposal area is approximately 2 acres.

(b)(1)(vi) A schedule for completing all activities necessary to satisfy the closure criteria in this section, including an estimate of the year in which all closure activities for the CCR unit will be completed. The schedule should provide sufficient information to describe the sequential steps that will be taken to close the CCR unit, including identification of major milestones such as coordinating with and obtaining necessary approvals and permits from other agencies, the dewatering and stabilization phases of CCR surface impoundment closure, or installation of the final cover system, and the estimated timeframes to complete each step or phase of CCR unit closure. When preparing the written closure plan, if the owner or operator of a CCR unit estimates that the time required to complete closure will exceed the timeframes specified in paragraph (f)(1) of this section, the written closure plan must include the site-specific information, factors and considerations that would support any time extension sought under paragraph (f)(2) of this section.

Closure by removal of the New FGD Pond will be completed within 5 years of commencing the closure activities. Once the closure construction is initiated, the general activities and sequence of work along with estimated timeframes are as follows:

1. Notification of Closure – No later than the initiation of closure.
2. Initiation of Closure – Within 30 days of known final receipt of waste.
3. Dewater – Approximately 1 month.
4. CCR Removal – Approximately two to four months.
5. Liner System & Infrastructure Removal – Approximately 3 to 6 months after CCR removal.
6. Final Grading & Site Restoration – Approximately 2 to 4 months after liner and infrastructure removal and engineer certification.
7. Groundwater Monitoring – Approximately 2 months after site restoration to complete the sampling, testing, and reporting.
8. Construction Certification – Approximately 1 month after final closure construction completion.
9. Final Reporting & Notification – After closure construction is complete.

A more detailed description of the New FGD Pond closure by removal sequence is presented in Section 3.2.

3.1.2 AMENDMENT OF A WRITTEN CLOSURE PLAN §257.102(B)(2)

(b)(2) Timeframes for preparing the initial written closure plan—(i) Existing CCR landfills and existing CCR surface impoundments. No later than October 17, 2016, the owner or operator of the CCR unit must prepare an initial written closure plan consistent with the requirements specified in paragraph (b)(1) of this section.

(b)(2)(ii) New CCR landfills and new CCR surface impoundments, and any lateral expansion of a CCR unit. No later than the date of the initial receipt of CCR in the CCR unit, the owner or operator must prepare an initial written closure plan consistent with the requirements specified in paragraph (b)(1) of this section.

(b)(2)(iii) The owner or operator has completed the written closure plan when the plan, including the certification required by paragraph (b)(4) of this section, has been placed in the facility's operating record as required by §257.105(i)(4).

In accordance with §257.102 (b)(2)(ii) and §257.102 (b)(2)(iii), this Closure Plan will be certified and placed in the facility's Operating Record prior to receipt of CCR by the New FGD Pond, as well as posted to the CCR Unit internet site.

3.1.3 AMENDMENT OF A WRITTEN CLOSURE PLAN §257.102(B)(3)

(b)(3)(i) The owner or operator may amend the initial or any subsequent written closure plan developed pursuant to paragraph (b)(1) of this section at any time.

(b)(3)(ii) The owner or operator must amend the written closure plan whenever

(A) There is a change in the operation of the CCR unit that would substantially affect the written closure plan in effect; or

(B) Before or after closure activities have commenced, unanticipated events necessitate a revision of the written closure plan.

(b)(3)(iii) The owner or operator must amend the closure plan at least 60 days prior to a planned change in the operation of the facility or CCR unit, or no later than 60 days after an unanticipated event requires the need to revise an existing written closure plan. If a written closure plan is revised after closure activities have commenced for a CCR unit, the owner or

operator must amend the current closure plan no later than 30 days following the triggering event.

If necessary, this Closure Plan will be amended in accordance with the requirements and timeframes within §257.102 (b)(3)(i) through §257.102 (b)(3)(iii).

3.1.4 WRITTEN CERTIFICATION §257.102 (B)(4)

§257.102 (b)(4) The owner or operator of the CCR unit must obtain a written certification from a qualified professional engineer that the initial and any amendment of the written closure plan meets the requirements of this section.

A written certification from a qualified professional engineer licensed in South Carolina is provided in Section 4.0.

3.2 CLOSURE BY REMOVAL OF CCR §257.102(C)

§257.102(c) An owner or operator may elect to close a CCR unit by removing and decontaminating all areas affected by releases from the CCR unit. CCR removal and decontamination of the CCR unit are complete when constituent concentrations throughout the CCR unit and any areas affected by releases from the CCR unit have been removed and groundwater monitoring concentrations do not exceed the groundwater protection standard established pursuant to §257.95(h) for constituents listed in appendix IV to this part.

The proposed steps for closure of the New FGD pond are as follows:

1. Submit a Notification of Closure.
2. Initiation of Closure: Cease receipt of CCR to the pond and deactivate the sluice lines to the pond.
3. Dewater: Pump ponding water from the two forebays.
4. CCR Removal: Excavate CCR material from within the two forebays, stockpile the material to decant or process through a filter press, and then dispose of the material in an approved landfill.
5. Liner System & Infrastructure Removal: Remove the concrete protective cover layer, geosynthetic liner materials, piping materials, and contaminated CCL. The materials will be disposed at an approved landfill.

6. Final Grading & Site Restoration: The final site grades will be established to promote positive drainage and the final ground surface will be stabilized to prevent erosion.
7. Groundwater Monitoring: The groundwater monitoring program should be maintained to meet §257.102(c).
8. Construction Certification: A South Carolina licensed professional engineer will coordinate necessary observations and inspections to: 1) certify all CCR has been removed and the affected areas have been decontaminated based on a visual inspection; and, 2) the construction activities are in accordance with this Closure Plan, typical engineering standards and any applicable plans and specifications.
9. Final Reporting & Notification: Prepare closure notification, certification, and documentation to comply with the CCR Rule.

3.3 INITIATION OF CLOSURE ACTIVITIES §257.102(E)

§257.102(e) Except as provided for in paragraph (e)(4) of this section and §257.103, the owner or operator of a CCR unit must commence closure of the CCR unit no later than the applicable timeframes specified in either paragraph (e)(1) or (2) of this section.

Closure by removal activities will commence within 30 days of ceasing receipt of waste in accordance with §257.102(e)(1)(ii).

3.4 COMPLETION OF CLOSURE ACTIVITIES §257.102(F)

3.4.1 CLOSURE ACTIVITIES TIMEFRAME §257.102(F)(1)

(f)(1) Except as provided for in paragraph (f)(2) of this section, the owner or operator must complete closure of the CCR unit:

(f)(1)(i) For existing and new CCR landfills and any lateral expansion of a CCR landfill, within six months of commencing closure activities.

(f)(1)(ii) For existing and new CCR surface impoundments and any lateral expansion of a CCR surface impoundment, within five years of commencing closure activities.

Closure of the New FGD Pond will be completed within 5 years of commencing closure activities in accordance with §257.102(f)(1)(ii).

3.4.2 EXTENSIONS OF CLOSURE TIMEFRAMES §257.102(F)(2)

(f)(2)(i) 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. The owner or operator must place each completed demonstration, if more than one time extension is sought, in the facility's operating record as required by §257.105(i)(6) prior to the end of any two-year period. Factors that may support such a demonstration include:

(f)(2)(i)(A) Complications stemming from the climate and weather, such as unusual amounts of precipitation or a significantly shortened construction season;

(f)(2)(i)(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;

(f)(2)(i)(C) The geology and terrain surrounding the CCR unit will affect the amount of material needed to close the CCR unit; or

(f)(2)(i)(D) Time required or delays caused by the need to coordinate with and obtain necessary approvals and permits from a state or other agency.

Closure of the New FGD Pond will be completed within five years of initiating closure activities.

3.4.3 CLOSURE CERTIFICATION §257.102(F)(3)

(f)(3) Upon completion, the owner or operator of the CCR unit must obtain a certification from a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority verifying that closure has been completed in accordance with the closure plan specified in paragraph (b) of this section and the requirements of this section.

Upon completing closure of the New FGD Pond, a written certification from a qualified professional engineer stating that closure has been completed in accordance with this Closure Plan will be obtained, recorded in the Operating Record, and posted on the internet in accordance with the CCR Rules.

3.5 NOTIFICATION OF INTENT §257.102(G)

§257.102 (g) No later than the date the owner or operator initiates closure of a CCR unit, the owner or operator must prepare a notification of intent to close a CCR unit. The notification must include the certification by a qualified professional engineer or the approval from the Participating State Director or the approval from EPA where EPA is the permitting authority for the design of the final cover system as required by §257.102(d)(3)(iii), if applicable. 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)(7).

A notification of intent to close the CCR Unit will be prepared no later than the initiation of closure. Because the CCR Unit will be closed by removal, an engineer's certification of the final cover system is not applicable. The notification will be placed in the Operating Record in accordance with §257.105(i)(7).

3.6 NOTIFICATION OF CLOSURE §257.102(H)

§257.102 (h) Within 30 days of completion of closure of the CCR unit, the owner or operator must prepare a notification of closure of a CCR unit. The notification must include the certification by a qualified professional engineer or the approval from the Participating State Director or the approval from EPA where EPA is the permitting authority as required by §257.102(f)(3). 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)(8).

Within 30 days of closure completion, a notification of closure for the New FGD Pond will be prepared. The notification will include certification by a qualified professional engineer as required by §257.102(f)(3) stating that closure has been completed in accordance with this Closure Plan. The notification will be placed in the Operating Record in accordance with §257.105(i)(8).

3.7 DEED NOTATIONS §257.102(I)

§257.102 (i) 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.

The New FGD Pond will be closed by removal and the requirements of §257.102(c), therefore deed notifications are not applicable or required per §257.102(i)(4).

3.8 RECORD KEEPING REQUIREMENTS §257.102(J)

§257.102(j) The owner or operator of the CCR unit must comply with the closure recordkeeping requirements specified in §257.105(i), the closure notification requirements specified in §257.106(i), and the closure Internet requirements specified in §257.107(i).

The closure recordkeeping requirements specified in §257.105(i), the closure notification requirements specified in §257.106(i), and the closure Internet requirements specified in §257.107(i) will be met.

3.9 CRITERIA TO RETROFIT AN EXISTING CCR SURFACE IMPOUNDMENT §257.102(K)

A retrofit of the New FGD Pond is not planned.

4.0 PROFESSIONAL ENGINEER CERTIFICATION

This Closure Plan fulfills the CCR Rule Closure requirements for a Written Closure Plan in §257.102(b).

I, Scott L. Brown, P.E., a registered professional engineer in the state of South Carolina certify that Williams Station New FGD Pond fulfils the Closure Plan requirements of §257.102(b). This certification is based on my review of the amended Williams Station New FGD Pond Closure Plan.

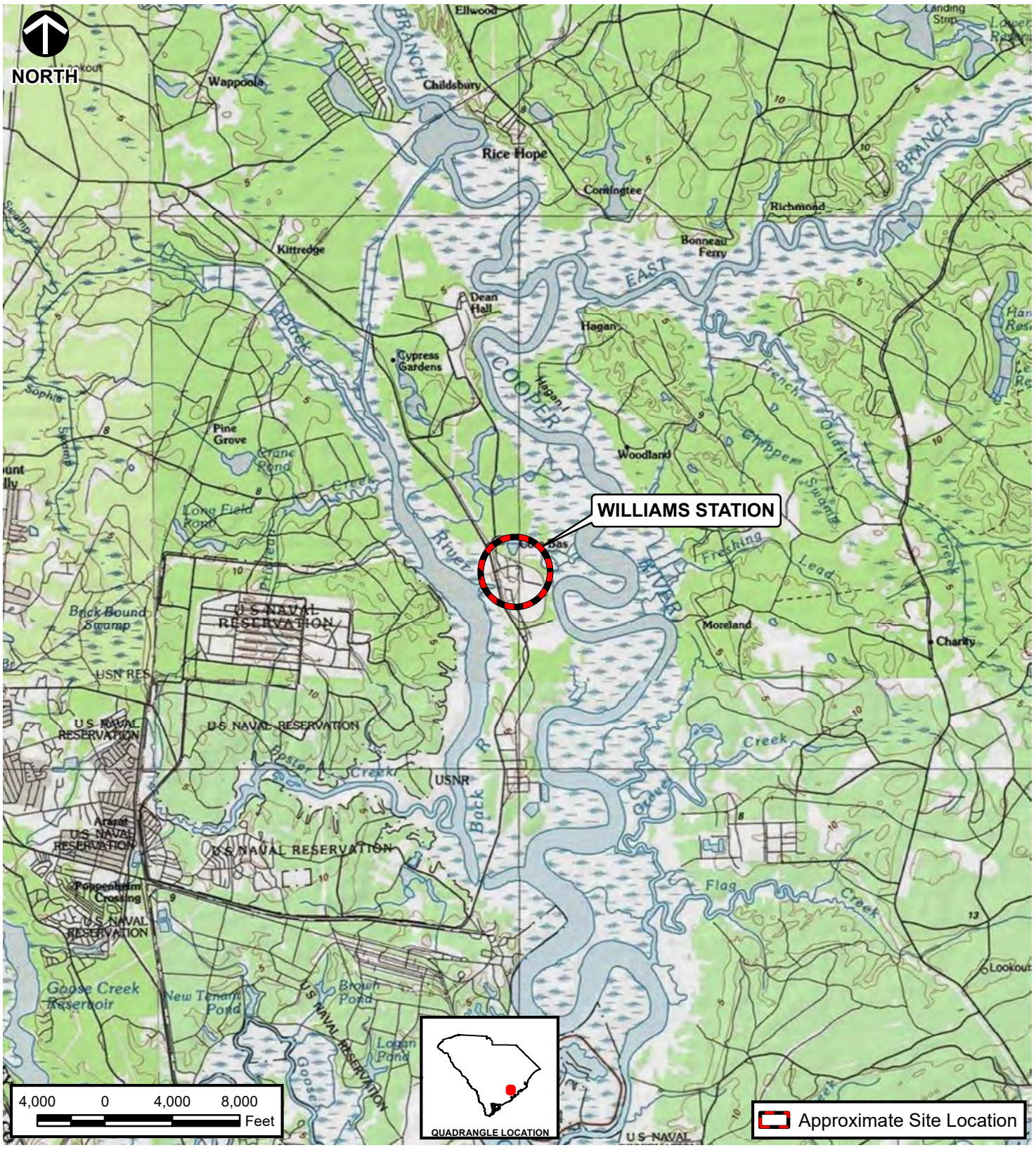
Scott L. Brown, P.E.

Printed Name of Professional Engineer

Signature

25687	South Carolina	5-7-21
Registration No.	Registration State	Date

FIGURES



SOURCE: PORTION OF THE USGS 7.5-MINUTE SERIES TOPOGRAPHIC QUADRANGLE MAP(S): KITTREDGE, SOUTH CAROLINA, 1979.

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SITE LOCATION MAP

DRAWN BY:	CEJ	CHECKED BY:	APA	APPROVED BY:	APA*	FIGURE NO:	1
DATE:	APRIL 27, 2021	DWG SCALE:	1 " = 8,000 '	PROJECT NO:	306-309-AW01		

Signature on File *

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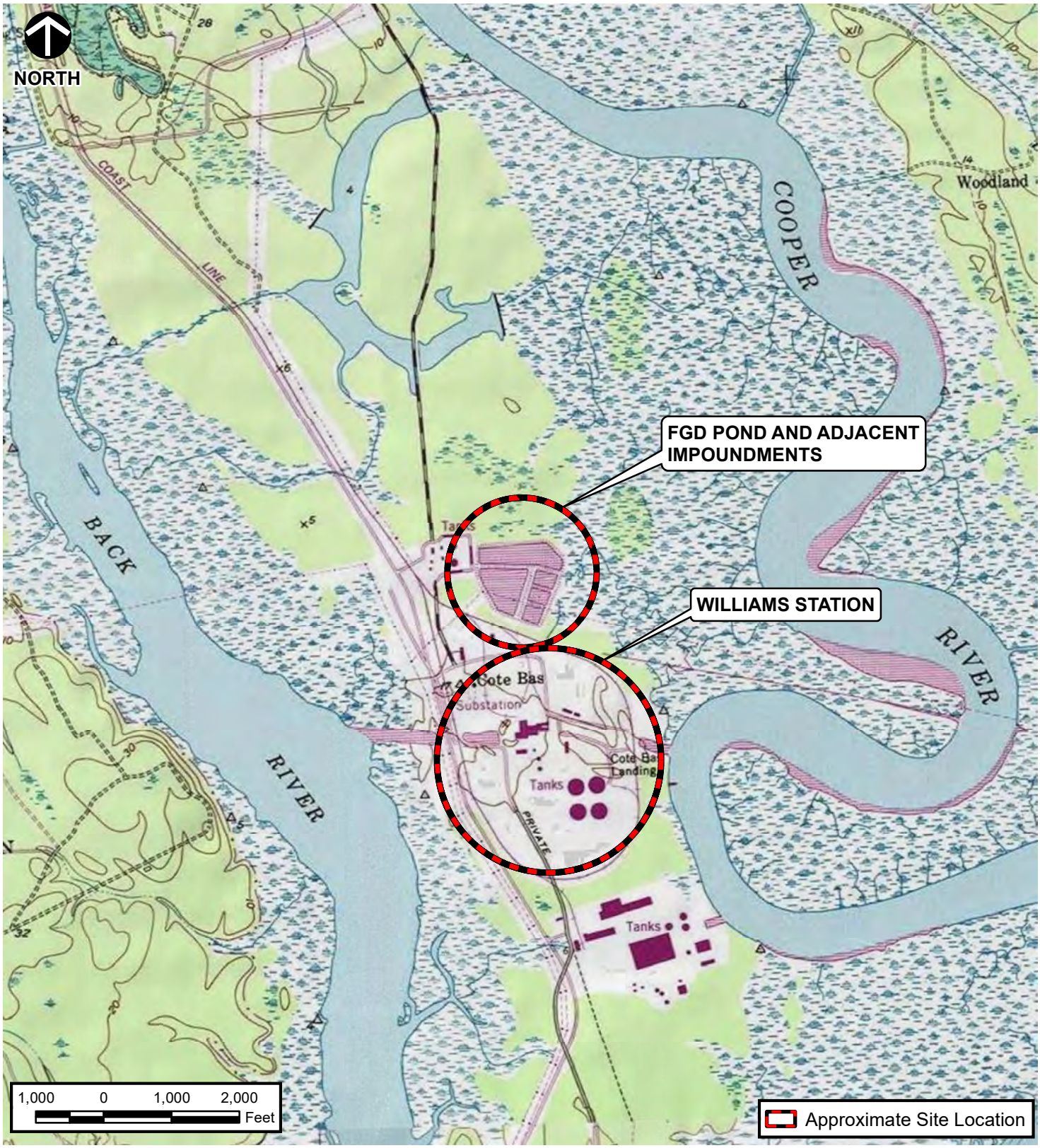

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SITE AND VICINITY AERIAL MAP

DRAWN BY:	CEJ	CHECKED BY:	APA	APPROVED BY:	APA*	FIGURE NO:	2
DATE:	APRIL 27, 2021	DWG SCALE:	1 " = 2,000 '	PROJECT NO:	306-309-AW01		

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WILLIAMS STATION OVERVIEW MAP

DRAWN BY:	CEJ	CHECKED BY:	APA	APPROVED BY:	APA*	FIGURE NO:	3
DATE:	APRIL 27, 2021	DWG SCALE:	1 " = 600 '	PROJECT NO:	306-309-AW01		

Signature on File *

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WILLIAMS STATION FGD POND &
ADJACENT IMPOUNDMENTS MAP

DRAWN BY:	CEJ	CHECKED BY:	APA	APPROVED BY:	APA*	FIGURE NO:	4
DATE:	APRIL 27, 2021	DWG SCALE:	1 " = 250 '	PROJECT NO:	306-309-AW01		

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