ENVIRONMENTAL PROTECTION DIVISION
PUBLIC NOTICE
WATERSHED PROTECTION BRANCH

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| September 11, 2025<br>Notice Issue Date | Columbia County<br>City / County |
| October 14, 2025<br>Notice Close Date | FERC No. P-2535<br>Control Number |

Sec. 401 Water Quality Certification
Stevens Creek Hydroelectric Project– FERC Final License Application

This notice is issued to inform the public that a request has been received for water quality certification (WQC) in accordance with Section 401 of the Clean Water Act. The public is invited to comment during this 30-day period on the proposed activity. Information pertaining to the project is attached to this notice. Since the request is specific to 401 WQC, only comments pertaining to water quality are considered under the certification review process. Comments may be submitted via e-mail to: EPD.WQC@dnr.ga.gov. Comments may also be provided in writing to: Program Manager, Wetlands Unit, 2 Martin Luther King, Jr. Dr. SE, Suite 1052 East, Atlanta, GA 30334. Include the words "Water Quality Certification Comment" and the Control Number above in the e-mail subject line or on the top of the first page of written comments to ensure that your comments will be forwarded to the appropriate staff. For additional information, contact Dewey Richardson at dewey.richardson@dnr.ga.gov.

Type of Permit Application: 401 Water Quality Certification

Applicable Law: Federal Clean Water Act, 33 U.S.C. § 1341

Applicable Rules: 40 CFR part 121

Description and Location of Proposed Activity:

Dominion Energy South Carolina, Inc. (DESC) is seeking a Section 401 Water Quality Certification as part of the Federal Energy Regulatory Commission (FERC) relicensing process for the Stevens Creek Hydroelectric Project. Stevens Creek Hydroelectric Project is a 17.28-megawatt hydroelectric facility owned and operated by Dominion Energy South Carolina, Inc., located in Edgefield and McCormick Counties, South Carolina, and Columbia County, Georgia, at the confluence of Stevens Creek and the Savannah River, approximately one mile upstream of the Augusta Diversion Dam. The Stevens Creek Project operates as a re-regulating plant, mitigating the downstream effects of the routinely wide-ranging discharges due to the peaking operation from the upstream U.S. Army Corps of Engineers' (USACE) J. Storm Thurmond hydroelectric plant (Thurmond Dam). The normal operating target range for the Stevens Creek Project is to provide an hourly release of ± 15 percent of the scheduled daily average discharge from Thurmond Dam depending on the reservoir elevation. When daily average releases from Thurmond Dam vary within 500 cubic feet per second (cfs) of those originally scheduled, Stevens Creek Project operation will be adjusted as needed to accommodate the difference as soon as operators are notified of the change by the USACE. No changes to the operation of the Project are proposed for the new license term. The current license, issued by the FERC to South Carolina Electric & Gas Company on November 22, 1995, is set to expire on October 31, 2025.

Name and Address of Permit Applicant: Ms. Amy Bresnahan, P.E., Relicensing Project Manager
Dominion Energy South Carolina, Inc.
220 Operation Way, Mail Code B223
Cayce, South Carolina 29033

# 1.0 APPLICANT INFORAMTION

**Name of Applicant/Company:** Dominion Energy South Carolina, Inc.

**Name of Applicant Representative:** Amy Bresnahan, P.E., Relicensing Project Manager

**Email:** amy.bresnahan@dominionenergy.com

**Phone:** Office: (803) 217-9965

**Mailing Address:** 220 Operation Way, Mail Code B223, Cayce, SC 29033

# 2.0 CONTACT INFORMATION

**Name of Application Contact:** Amy Bresnahan, P.E., Relicensing Project Manager

**Name of Company**: Dominion Energy South Carolina, Inc.

**Email**: amy.bresnahan@dominionenergy.com

**Phone:** Office: (803) 217-9965

**Mailing Address:** 220 Operation Way, Mail Code B223, Cayce, SC 29033

**Name of Authorized Representative Contact**: Alison Jakupca, Principal Consultant

**Name of Company:** Kleinschmidt Associates

**Email**: alison.jakupca@kleinschmidtgroup.com

**Phone:** (803) 462-5628

**Mailing Address:** 204 Caughman Farm Lane, Ste 301, Lexington, SC 29072

# 3.0 INTRODUCTION

Stevens Creek Hydroelectric Project (Stevens Creek Project or Project) is a 17.28 megawatt hydroelectric facility owned and operated by Dominion Energy South Carolina, Inc. (DESC or Licensee), located in Edgefield and McCormick counties, South Carolina, and Columbia County, Georgia, at the confluence of Stevens Creek and the Savannah River, approximately one mile upstream of the Augusta Diversion Dam[1]. The Project currently operates under a 30-year license issued by the Federal Energy Regulatory Commission (FERC or Commission) on November 22, 1995[2].

Approximately 5.5 years prior to expiration of the current license, DESC initiated relicensing with FERC by filing the Notice of Intent to relicense the Stevens Creek Project and the Pre-application Document[3]. After completion of the required consultation with agencies and interested parties, DESC filed their Final License Application (FLA) with FERC on October 27, 2023. The FLA is included as Appendix A to this submittal.

Section 7.0 of the FLA[4] identifies stakeholders that DESC consulted with during resource issue scoping, study plan development, and preparation of the license application. Appendix E-1 of the FLA[4] provides consultation from the relicensing process, including development and filing of draft and revised study plans and notes from stakeholder meetings.

[1] The Augusta Diversion Dam is part of the Augusta Canal Hydropower Project (FERC Project No. 11810), owned and operated by the city of Augusta, Georgia

[2] FERC Project Number P-2535; FERC eLibrary Accession No. 19951122-3063 eLibrary | Document Information

[3] Filed May 15, 2020.

[4] FERC eLibrary Accession No. 20231027-5293 eLibrary | Document Information

# 4.0 PROJECT DESCRIPTION

## 4.1 Project Description

The Stevens Creek Project operates as a re-regulating plant, mitigating the downstream effects of the routinely wide-ranging discharges due to the peaking operation from the upstream U.S. Army Corps of Engineers' (USACE) J. Storm Thurmond hydroelectric plant (Thurmond Dam) (Figure 4-1).

The Project boundary, as established by FERC, encompasses approximately 104 acres of U.S. Forest Service (USFS) lands within the Sumter National Forest (SNF) with pre-existing easements and as additional 0.21 acres of federal lands within the SNF without pre-existing easements. DESC owns approximately 95 acres of land within the FERC project boundary. DESC owned lands within the project boundary generally surround the Project powerhouse. The remaining lands within the FERC project boundary are of private ownership.

Stevens Creek Project structures consists of a single dam and an integral powerhouse that were constructed between 1913 and 1914 for hydroelectric power generation. Stevens Creek Project structures include: 1) non-overflow portions, located at the abutments with a top elevation (EL) of 198.54 feet (1929 National Geodetic Vertical Datum [NGVD], 184.0 Plant Datum); 2) 2,000-foot spillway composed of an (a) cyclopean concrete gravity section, ogee crest, with a top EL of 183.54 (1929 NGVD, 169.0 Plant Datum), (b) 1,000 feet of 5-foot-high flashboards from the lock to the center of the spillway, (c) 1,000 feet of 4-foot-high flashboards from the center of the spillway to the South Carolina abutment; 3) a concrete gravity lock 85-feet-wide by 165.5-feet-long located between the powerhouse and spillway section; 4) a 388-foot-long powerhouse, integral with the dam, consisting of a reinforced concrete substructure and a steel-framed brick superstructure, and containing eight turbine-generators.

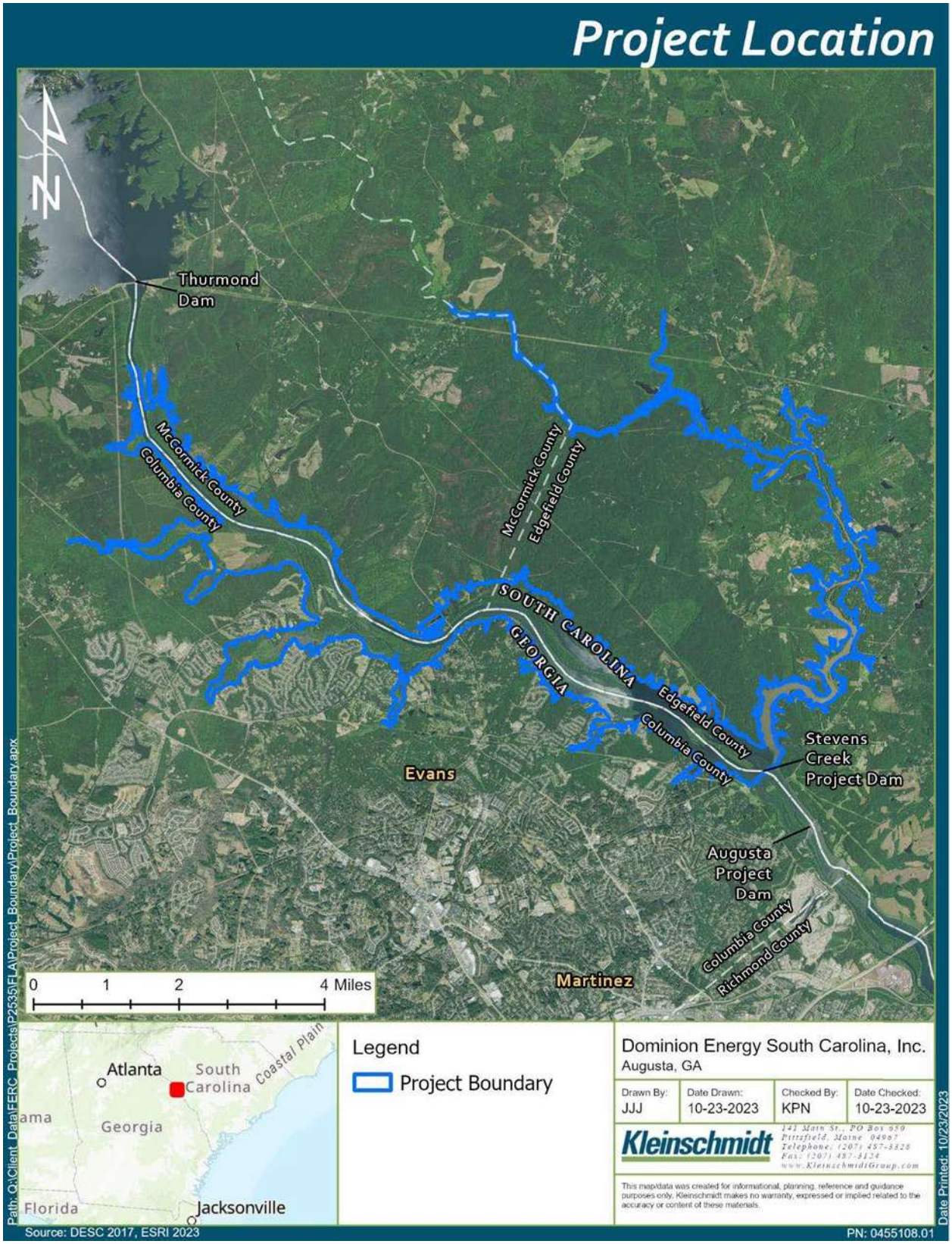


**Figure 4-1 Stevens Creek Project Location Map**

## 4.2 Project Operation

The Stevens Creek Project is staffed in some manner seven days per week. Staff is on site five days per week, Monday through Friday, for eight hours each day. An operator is on site during the weekends for two or more hours per day as needed to support normal plant operations. The turbine gates are operated remotely from DESC's Urquhart Steam Station near Beech Island, South Carolina. The turbines' output is manually adjusted and monitored by the operators at the Urquhart Steam Station 24 hours per day, seven days per week in response to the Thurmond Dam releases[5]. The Stevens Creek Project serves an importation function to the Savannah River in that it operates as a re-regulating project as required by Article 402 of the current FERC license. More specifically, the Stevens Creek Project redistributes the varying discharges from the upstream Thurmond Dam to provide a more uniform flow in the Savannah River downstream of the Project. The Thurmond Dam is the furthest downstream project of three multiple purpose projects in the upper Savannah River Basin operated by the Savannah District of USACE. Thurmond Dam and the other two projects, Hartwell and Richard B. Russell, are operated to maximize the public benefits of hydroelectric power, flood damage reduction, recreation, fish and wildlife, water supply, and water quality (Figure 4-2).

The Stevens Creek Project is operated in accordance with an Operating Plan on file with FERC[6]. The Operating Plan was developed in consultation with the USACE, USFWS, GAWRD, and SCDNR and includes details regarding how the Project is operated. The normal operating target range for the Stevens Creek Project is to provide an hourly release of ± 15 percent of the scheduled daily average discharge from Thurmond Dam depending on the reservoir elevation. When daily average releases from Thurmond Dam vary within 500 cubic feet per second (cfs) of those originally scheduled, Stevens Creek Project operation will be adjusted as needed to accommodate the difference as soon as operators are notified of the change by the USACE. The Operating Plan is described further within Section 4.3, Water Use.

On occasion, the amount of water released from Thurmond Dam and/or from Stevens Creek proper causes the Project flashboards to "trip" allowing water over the crest of the dam.[7] Following the filing of the FLA with FERC, the Commission issued an Additional

[5] Section 3.1.1.6 Existing Project Operation, Final License Application, Accession No. 20231027-5293

[6] DESC filed a revised Operating Plan with FERC on July 27, 2023, which was approved October 20, 2023.

[7] The Stevens Creek Project flashboards are designed to rotate about a horizontal shaft by water pressure on the boards when the headwater rises a few inches above the top of the flashboards when in the fully

Information Request (AIR)[8] for information on the frequency, duration, and cause of flashboard tripping. DESC filed a response to the AIR on March 25, 2025, which is included herein as Appendix B.

No changes to the operation of the Project are proposed for the new license term.

raised position. The boards rotate as designed (which DESC has always referred to as "tripping") and can be reset to the upright position manually from a boat or barge once any accumulated debris has been removed.

[8] FERC eLibrary Accession No. 20241125-3055 eLibrary | Document Information


**Figure 4-2 Hydroelectric Projects on the Savannah River**

## 4.3 Water Use

DESC operates the Stevens Creek Project to generate electricity and re-regulate highly variable river flows discharged by the USACE from the Thurmond Dam by generating to approximate their average discharge. As discussed in Section 4.2, Article 402 of the existing license requires the Licensee to obtain the predicted Thurmond Dam discharge schedule from the USACE and generate to approximate the scheduled daily average discharge in order to minimize pool fluctuations. DESC maintains the Stevens Creek Reservoir between EL 183.0 feet and 187.5 feet NGVD in accordance with the FERC operating license.

DESC files updates to the operating plan with FERC every 5 years pursuant to license Article 403. The operating plan describes operational protocols at the Stevens Creek Project based on releases from Thurmond Dam during flood conditions (i.e., higher than 30,000 cfs), high flow conditions (8,300 to 30,000 cfs), normal flows (4,200 to 8,300 cfs), low flows (4,000 to 4,200 cfs), drought (3,800 to 4,000 cfs), and severe drought (flows less than 3,800 cfs). The intent of the Operating Plan is to identify downstream flows for the Stevens Creek Project under various operating conditions, improve operational efficiency, minimize reservoir fluctuations (particularly during March through June spawning periods), provide more uniform downstream flows, and to address planned storage under different Thurmond Dam operating scenarios. Re-regulation of river flows benefits downstream resources, sustains aquatic habitats, and improves water quality by reoxygenating water released from the Thurmond Dam[9].

In addition, DESC has a NPDES[10] permit (No. GA0003786) for the Stevens Creek Project from the Georgia Department of Natural Resources, Environmental Protection Division (GAEPD) to discharge a maximum of 0.32 MGD[11] of top thrust bearing non-contact cooling water into the Savannah River (Appendix C).

The diversion dam associated with the Augusta Canal Hydroelectric Project (Augusta Project) is located 1 mile downstream from the Stevens Creek Dam and the impoundment the diversion dam creates extends to the toe of the Stevens Creek Dam. Likewise, the FERC project boundary proposed for licensing the Augusta Project includes this area. The diversion dam feeds water into the Augusta Canal, which was designed to harness

[9] Section 4.4.1.3 Water Use, Final License Application, Accession No. 20231027-5293
[10] NPDES = National Pollutant Discharge Elimination System
[11] MGD = Million Gallons per Day

waterpower at the Fall Line to drive mills, provide transportation of goods, and provide a municipal water supply. It is the only canal in the U.S. in continuous use for its original purposes of providing power, transport, and municipal water. Today, the Augusta Canal provides drinking water to the city of Augusta, recreational and tourism opportunities, and hydropower.

Municipalities and industries withdraw water and discharge treated wastewater into the Savannah River in compliance with state permitting requirements. Entities near the Stevens Creek Project withdrawing water or discharging treated wastewater into the Savannah River include the city of Augusta (Georgia), the city of North Augusta (South Carolina), Columbia County Water and Sewer (Georgia), and Edgefield County Water and Sewer (South Carolina). Columbia County's Little River Water Pollution Control Plant discharges to the Savannah River within the Stevens Creek Reservoir approximately 1 mile upstream of the Highway 28 bridge crossing.

## 4.4 Water Quality

According to the Georgia's 2024 Integrated 305(b)/303(d) List, the Savannah River at the Stevens Creek Project (i.e., between Thurmond Dam and Stevens Creek Dam) is listed as supporting its designated uses of drinking water and fishing. Further, the reach of the Savannah River downstream of Stevens Creek Dam to Highway 78/278 in Augusta also is listed as supporting these designated uses (GAEPD 2024).

Prior to 2000, the states of Georgia and South Carolina classified the Savannah River from the Thurmond Reservoir to Johnson's Landing (approximately 84 river miles downstream of Stevens Creek Dam) as impaired due to low dissolved oxygen (DO). The impaired reach includes the Stevens Creek Project area, the USACE dam, and the Augusta Project. Water released from Thurmond Dam can have low DO levels depending on the depth of the withdrawal and the time of the year. A total maximum daily load was completed by the U.S. Environmental Protection Agency in 2000 (USEPA 2000). In 2011, the USACE installed a major oxygen diffuser system in the Thurmond Reservoir to provide supplemental DO to support aquatic and fisheries habitat. The system consists of nine diffuser pipes installed at four elevations that supply DO to the impounded waters. The diffusers are supplied with pure gaseous oxygen from an onsite liquid storage and supply facility. The oxygen supply facility is capable of infusing over 200 tons of oxygen per day[12].

[12] Section 4.4.1.4 Water Quality, Final License Application, Accession No. 20231027-5293

From January 2021 to February 2022, DESC monitored water quality according to a study plan developed in consultation with stakeholders. The final study report is included as Appendix E-8 in the FLA[13].

DO levels in the Savannah River immediately downstream of the Stevens Creek powerhouse and below the spillway near the South Carolina side were above the daily average and instantaneous minimum DO for the entire monitoring period. The monitoring data demonstrate that re-oxygenation occurs as water passes through the Stevens Creek Reservoir, powerhouse, and over the spillway. Additionally, values for temperature, pH, and specific conductivity were within the normal range through the main body of the reservoir and below the Stevens Creek Project[8].

DESC received comments on the 2021/2022 Water Quality Study Report from the South Carolina Department of Natural Resources, Georgia Department of Natural Resources, and the National Marine Fisheries Service recommending that the water quality study be extended another year. Specifically, the agencies recommended a more focused study[14] on the Stevens Creek arm of the reservoir to help determine the factors causing low DO levels in that reach. Results from that study supported multiple factors leading to seasonally low DO levels in the Stevens Creek arm of the Project impoundment (Appendix D).

As part of the draft Water Quality Adaptive Management Plan, which was developed in consultation during Project relicensing with GAEPD, GAWRD, NMFS, the South Carolina Department of Environmental Services, SCDNR, USACE, USFS, and USFWS, includes a provision for DESC to contract with the U.S. Geological Survey (USGS) to implement continuous DO and temperature monitoring at USGS gauge no. 02195520 (Savannah River Near Evans, GA) and USGS gauge no. 021963601 (Stevens Creek at Woodlawn Rd nr Murphy Village, South Carolina) through the term of the new license. These gauges were installed and began collecting that continuous data in December 2024. USGS gauge no. 02196483 (Savannah Rvr at Stevens Creek Dam NR Morgana, SC) is installed at the Project dam and collects data on reservoir elevation. See Figure 7-1 below for gauge locations.

[13] Appendix E-8, 2021 Water Quality Study Report, Final License Application, Accession No. 20231027-5293
[14] 2023 Water Quality Study Report, Stevens Creek Hydroelectric Project, Filed July 30, 2024.

# 5.0 PROJECT LOCATION

Project Name: Stevens Creek Hydroelectric Project

County: Edgefield and McCormick Counties, South Carolina and Columbia County, Georgia

Nearest City or Town: Clarks Hill, South Carolina; Evans, Georgia

Lat/Long: 33°33’45”N, 82°03’04”W

Adjacent Land Owners: Private landowners and the USFS

# 6.0 APPLICABLE FEDERAL LICENSES OR PERMITS

Stevens Creek Hydroelectric Project (No. P-2535) License from the Federal Energy Regulatory Commission. DESC filed an FLA with the Commission on October 27, 2023 for relicensing the Project, which is currently under review.

GAEPD NPDES Permit No. GA0003786 is currently under review.

# 7.0 PROPOSED ACTION DESCRIPTION

The Proposed Action is the continued operation of the Stevens Creek Project as a re-regulating facility for a new FERC license term. DESC has no plans to modify existing Project facilities or operations.

The discharge location of the Stevens Creek Project is as follows: "water is discharged through the powerhouse on the Georgia shore of the Savannah River." See Figure 7-1 regarding the discharge location.

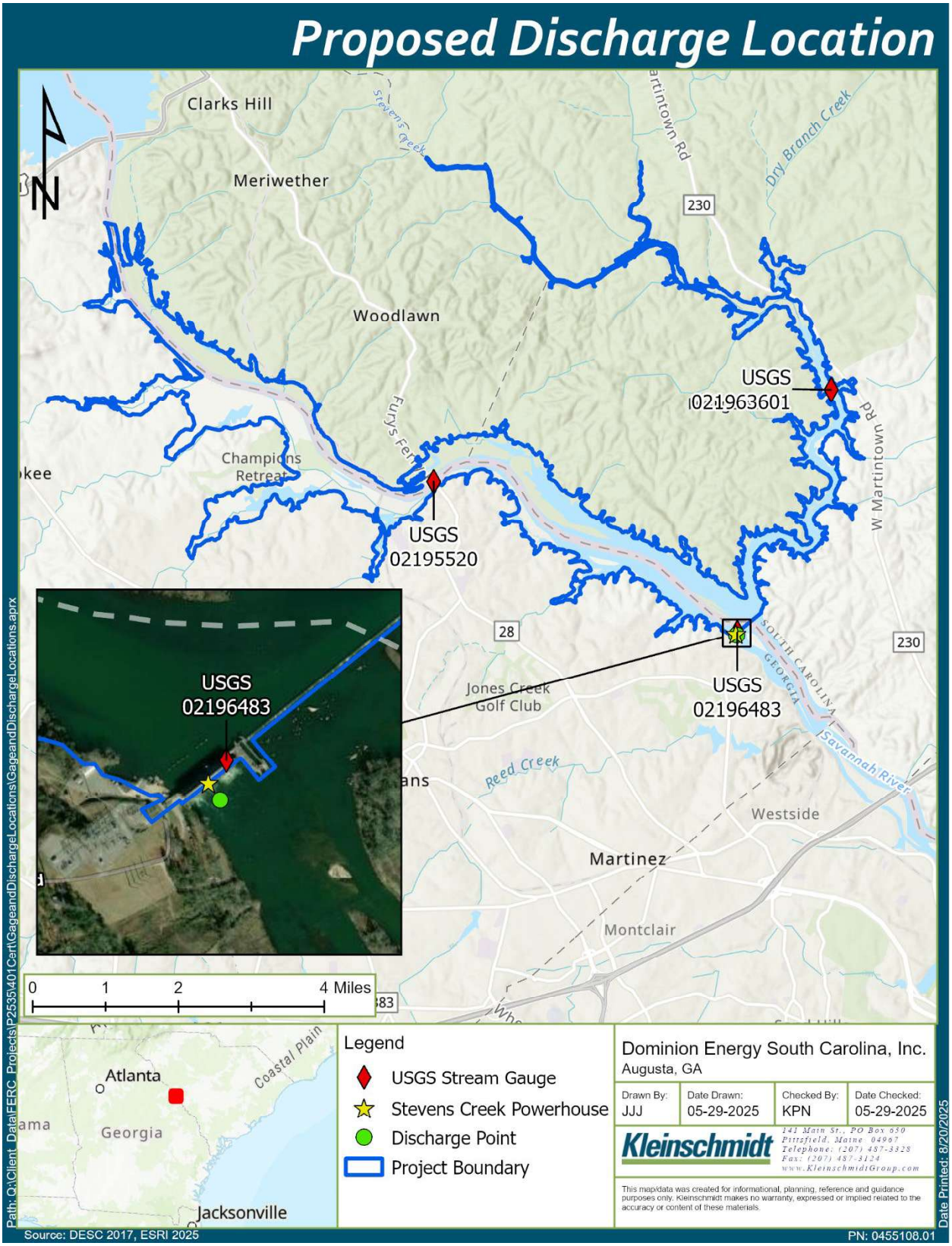


**Figure 7-1 Current/Proposed Discharge Location and USGS Gauges**

# 8.0 PRE-FILING MEETING REQUEST

DESC submitted a pre-filing request to GAEPD on May 1, 2025 (Appendix E). The pre-filing meeting was subsequently held with GAEPD staff on May 19, 2025.