

MEETING NOTES
Stevens Creek Hydroelectric Project (FERC No. 2353)
SOUTH CAROLINA ELECTRIC & GAS COMPANY
Agency and NGO Outreach Meeting

March 27, 2019

Final KMK 4-29-19

ATTENDEES:

Amy Bresnahan (SCE&G)	Melanie Olds (USFWS)
Bill Argentieri (SCE&G)	Derrick Miller (USFS)
Randy Mahan (SCANA)	Alison Jakupca (Kleinschmidt)
Pace Wilber (NOAA Fisheries)	Henry Mealing (Kleinschmidt)
Twyla Cheatwood (NOAA Fisheries)	Kelly Kirven (Kleinschmidt)
Andy Herndon (NOAA Fisheries)	

These notes are a summary of the major points presented during the meeting and are not intended to be a transcript or analysis of the meeting.

The purpose of this meeting was to discuss the Stevens Creek Hydroelectric Project and its operations, the upcoming relicensing process and potential resource issues at the Project. SCE&G hosted an agency/NGO outreach meeting on January 10, 2019, however several federal agency representatives were not able to attend due to the government shutdown. SCE&G convened a conference call to accommodate those representatives not able to attend the January meeting. The PowerPoint presentation from the meeting is attached to the end of these notes and is available on the Project website at www.stevenscreekrelicense.com.

Alison opened the meeting with introductions and then gave a brief overview of the relicensing process, the public meetings held in November 2018, and the agency/NGO outreach meeting in January 2019. Amy provided a brief overview of Project operations and explained that the Stevens Creek Project re-regulates flows released from the upstream U.S. Army Corps of Engineers (USACE) Thurmond Dam. Amy said that each day the USACE provides SCE&G with daily average flow targets and SCE&G then releases flows from Stevens Creek Dam continuously to meet that daily average.

Amy said that there is a large amount of existing water quality data for the Project, including forebay and tailrace data from the upstream Thurmond Project. SCE&G has to assemble and file with FERC an annual water quality report that primarily summarizes temperature and dissolved oxygen (DO) data. Dissolved oxygen enhancements installed at the Thurmond Project seem to have improved water quality in the area. Pace said that after review, it appears that the last 5-10 years of water quality reports didn't seem to show an instance of DO below 5 mg/L in the tailrace. He asked if SCE&G has ever considered installing a data sonde to collect continuous water quality data. Amy said that hadn't been considered at this time, but it can be considered during relicensing.

The group discussed land and shoreline management at the Project. Amy said that SCE&G doesn't own a significant amount of land around the river but have flowage easements instead. SCE&G may need to discuss dock and other permitting with the US Army Corps of Engineers. Derrick mentioned that the USFS doesn't allow the public to put docks on USFS land and they won't sell any land for private development.

Alison told the group that the Pre-Application Document (PAD) is due to be filed with FERC in 2020. She said that SCE&G will distribute a draft PAD to the agencies to review prior to filing with FERC. In the meantime, SCE&G is requesting that agencies provide them with any existing information they may have on the Project that can be incorporated into the PAD. Alison noted that Kleinschmidt received a great response to the PAD Questionnaires that were distributed to stakeholders in January. SCE&G also wants to scope out potential studies and submit study plans to FERC with the PAD. Meetings will be held throughout 2019 and early 2020 to develop these study plans.

The group discussed existing information on the various resource areas. The group discussed the potential for continuous data collection through a data sonde in more detail. Pace noted that visitors of the Stevens Creek and Thurmond Project areas have a perception of low DO in that stretch of river, however the data collected and presented in the annual reports doesn't support this. He said that the more data that exists, the easier SCE&G can combat this negative public perception. High amounts of siltation and run-off from farms located along Stevens Creek may be contributing to low DOs in the Project area. Henry said that data gaps will be identified in the PAD, and these data gaps will be used to determine what type of studies may need to be completed during relicensing. Bill A. also said that stakeholders can try to identify areas where they would like to see continuous data monitoring, through the installation of a data sonde, and SCE&G can consider contracting with USGS to get these monitors installed. This continuous data collection may also eliminate the need for an annual report with FERC.

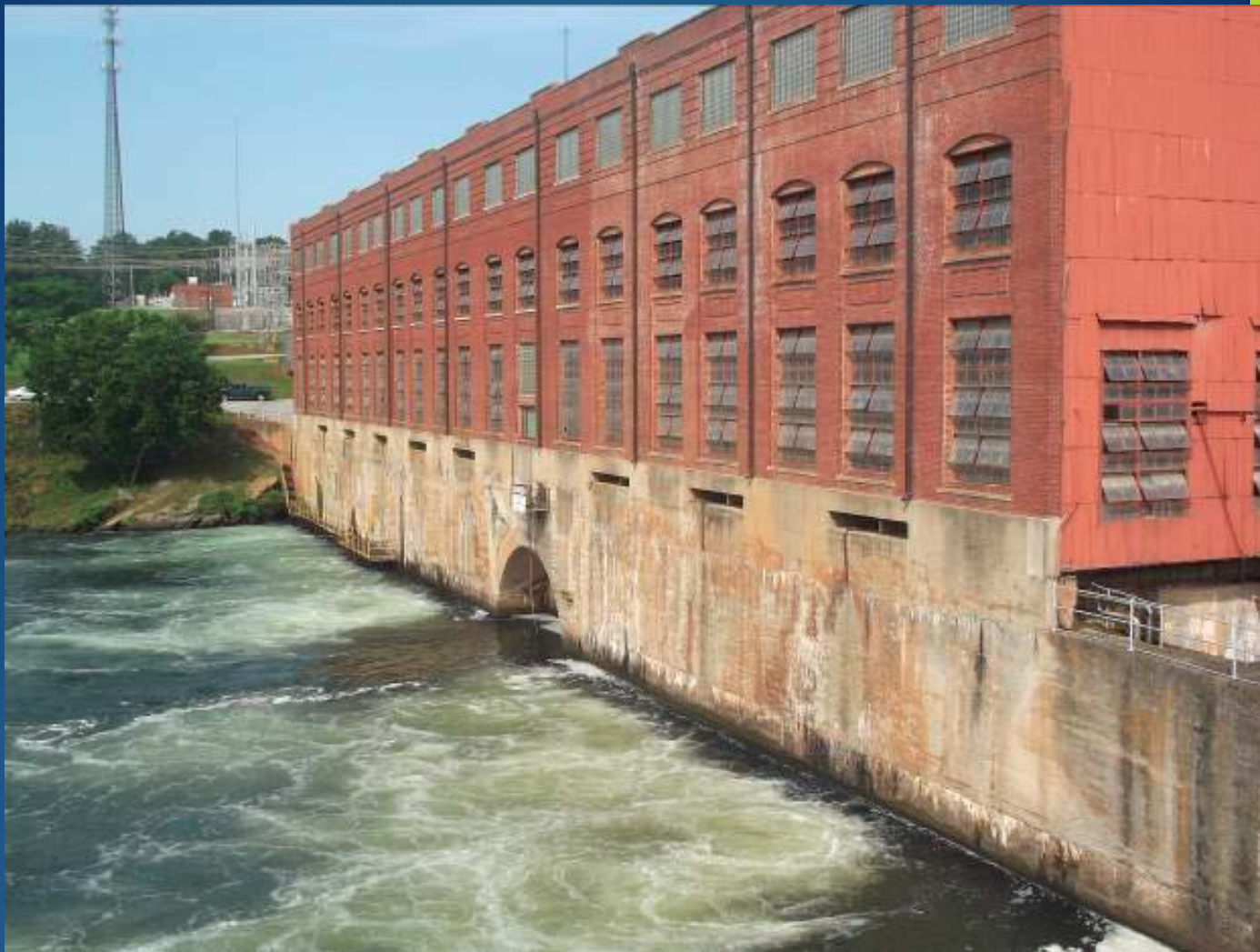
Melanie mentioned the Lower Savannah River Watershed Initiative Longleaf Alliance and said the program overlaps with the Project boundary and USFS land. She said that the purpose of this alliance is to improve water quality within the watershed and they may be able to provide additional water quality information. Derrick said he would check within USFS to determine input on the water quality issue.

Henry mentioned that the Stevens Creek Project does a lot to soften the peak flow release from upstream at Thurmond. This is seen as a Project benefit by SCE&G and the USACE, however, some members of the public would rather see the Stevens Creek reservoir held stable and the Stevens Creek Project send the peak flow downstream. Pace said it might be good to show how unnatural Thurmond's peak flow would make the river downstream if the Stevens Creek Project didn't re-regulate. Pace asked that the PAD be very clear about the physical constraints regarding water manipulation at the Stevens Creek Project due to the Thurmond Project upstream. Alison said that USACE has developed a flow model for the Savannah River system and that SCE&G will hopefully utilize this model during relicensing.

The next meeting will likely occur in the spring of 2019. During this meeting, the group will develop Resource Conservation Groups and begin developing study plans. A site visit to the Stevens Creek Project is scheduled for May 15, 2019. Action items from this meeting are listed below.

ACTION ITEMS:

- Kleinschmidt will schedule a meeting to develop Resource Conservation Groups and begin discussion of the PAD and study plans.



Stevens Creek Project Relicensing

FEDERAL AGENCY OUTREACH MEETING

MARCH 2019



Meeting Agenda

- ▶ Introductions
- ▶ Relicensing Goals and Agency Goals
- ▶ Project Overview
- ▶ Relicensing Process and Timeline
- ▶ Review Environmental Resource Areas and Potential Issues
- ▶ Discuss Relicensing Working Groups and Agency Personnel Interest and Involvement

SCE&G Relicensing Goals

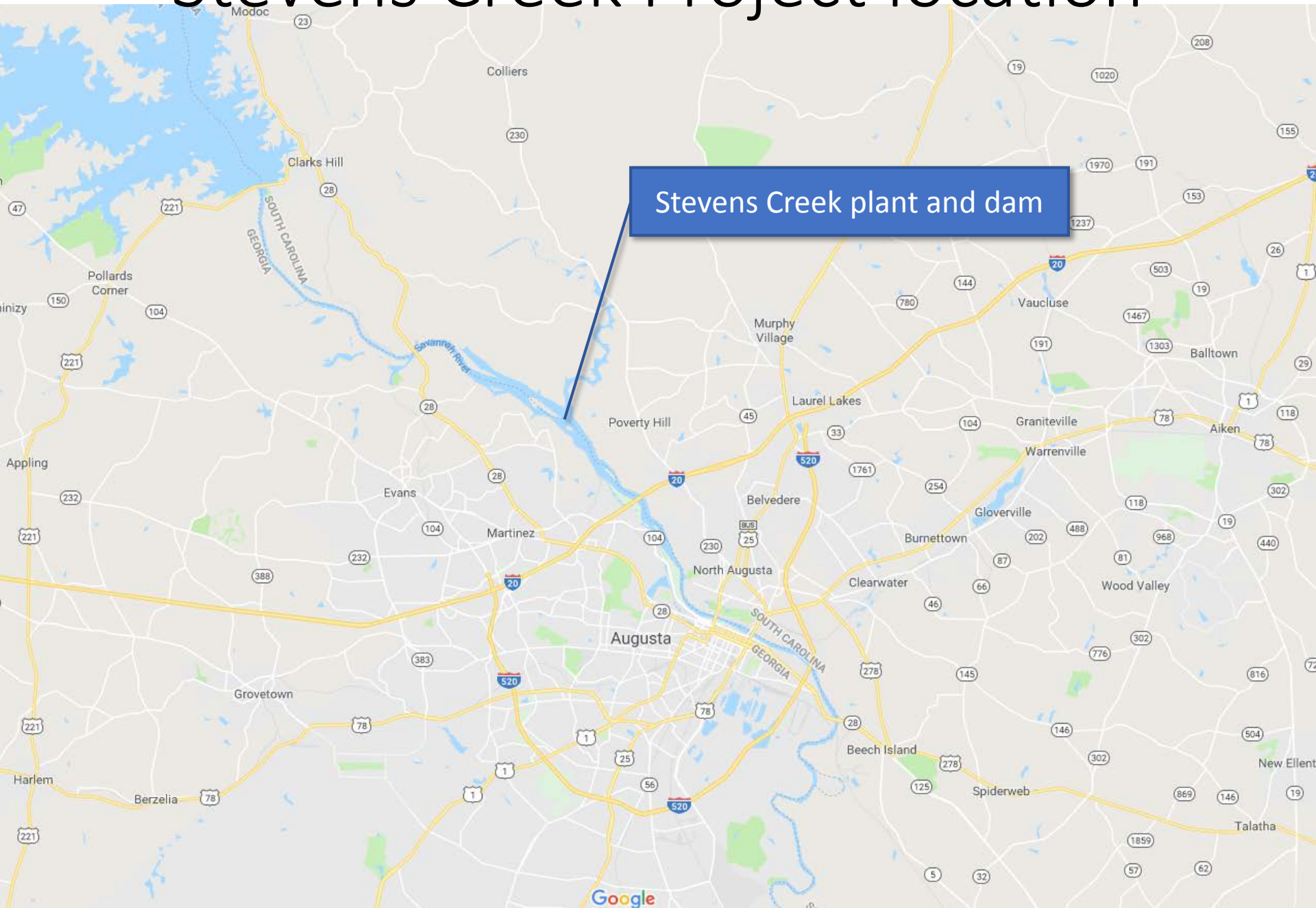
- ▶ Enhanced agency and stakeholder engagement through use of the TLP
- ▶ Establish and/or enhance positive working relationships with resource agencies and NGOs
- ▶ Develop licensing documents that satisfy regulatory requirements and hold up to FERC scrutiny
- ▶ Progression towards a Comprehensive Relicensing Settlement Agreement (CRSA)
- ▶ Retain operational flexibility in order to re-regulate USACE flows

Stevens Creek Hydroelectric Project

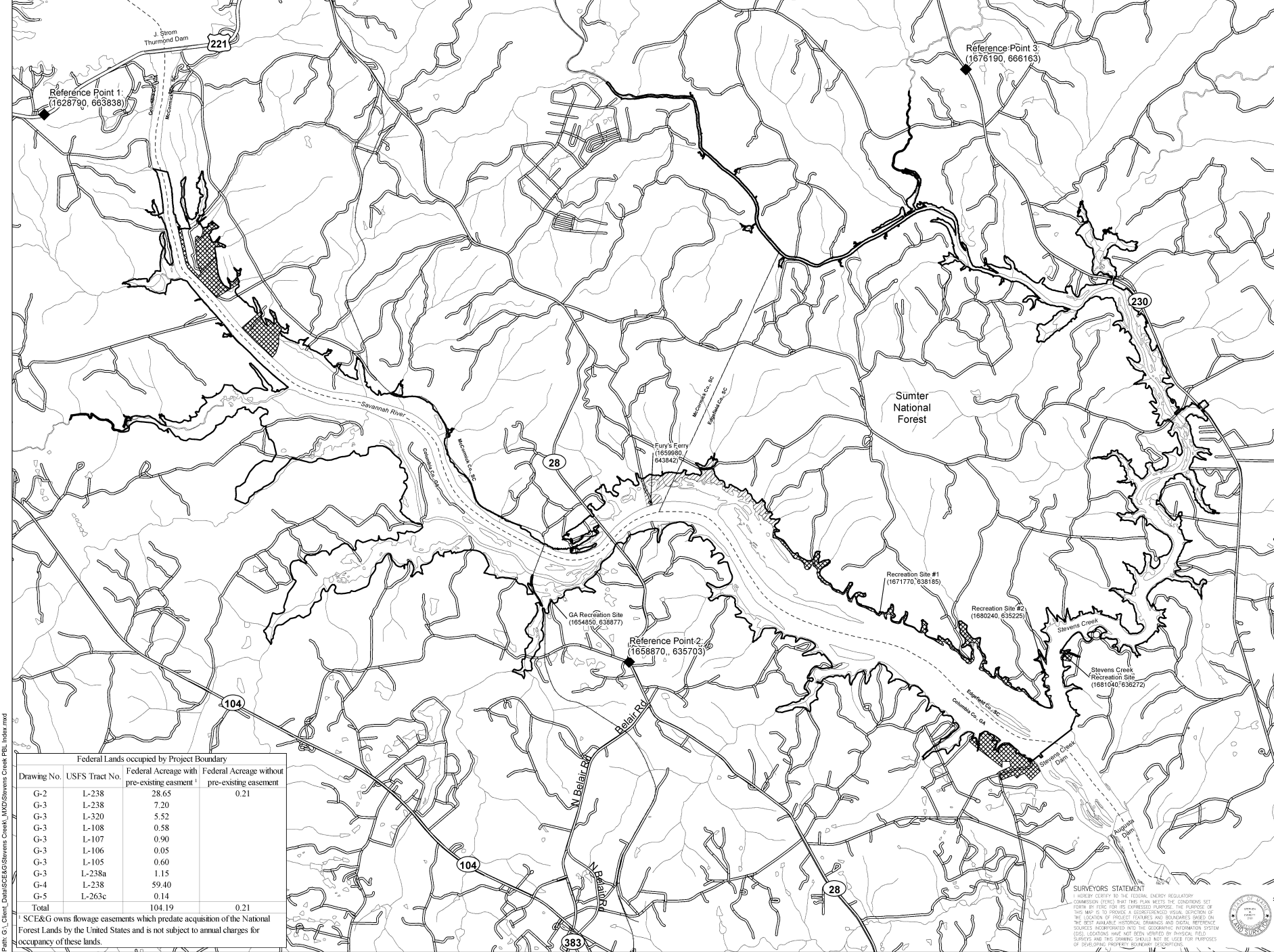
FERC Project No. 2535 – GA,SC



Stevens Creek Project location







Federal Lands occupied by Project Boundary			
Drawing No.	USFS Tract No.	Federal Acreage with pre-existing easment ¹	Federal Acreage without pre-existing easment
G-2	L-238	28.65	0.21
G-3	L-238	7.20	
G-3	L-320	5.52	
G-3	L-108	0.58	
G-3	L-107	0.90	
G-3	L-106	0.05	
G-3	L-105	0.60	
G-3	L-238a	1.15	
G-4	L-238	59.40	
G-5	L-263c	0.14	
Total		104.19	0.21

¹ SCE&G owns flowage easements which predate acquisition of the National Forest Lands by the United States and is not subject to annual charges for occupancy of these lands.

SURVEYORS STATEMENT
I, JAMES E. GIBSON, of the Georgia Engineering Regulatory Commission (FERC) and this plan meets the conditions set forth by FERC for the proposed purposes. The purpose of this map is to provide a georeferenced visual depiction of the location of project features and boundaries based on the best available historical drawings and digital reference sources incorporated into the geospatial information system (GIS). Locations have not been verified by physical field surveys and this drawing should not be used for purposes of developing property boundary descriptions.

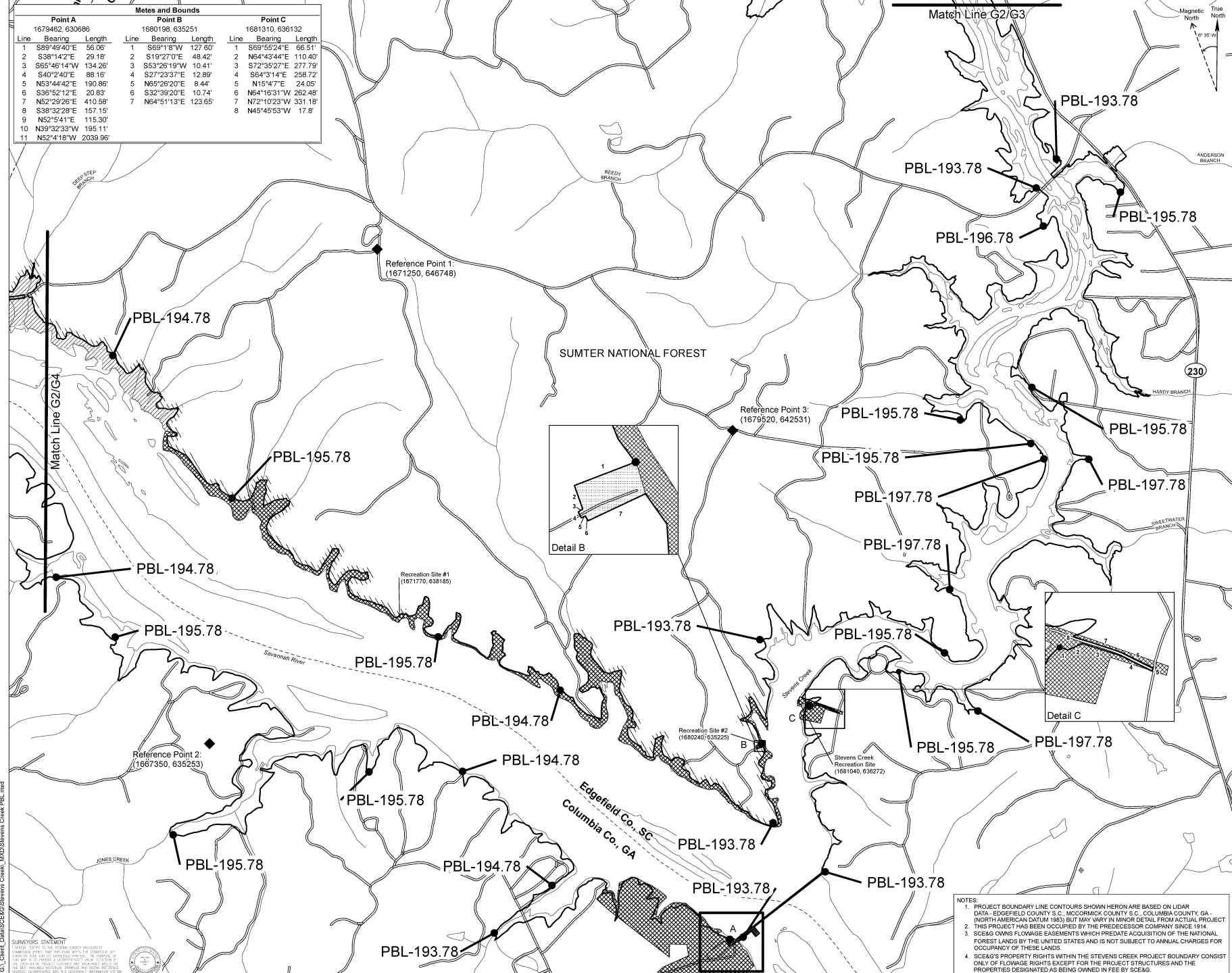
James E. Gibson
Professional Engineer
No. 12345
State of Georgia

Metes and Bounds

Point C

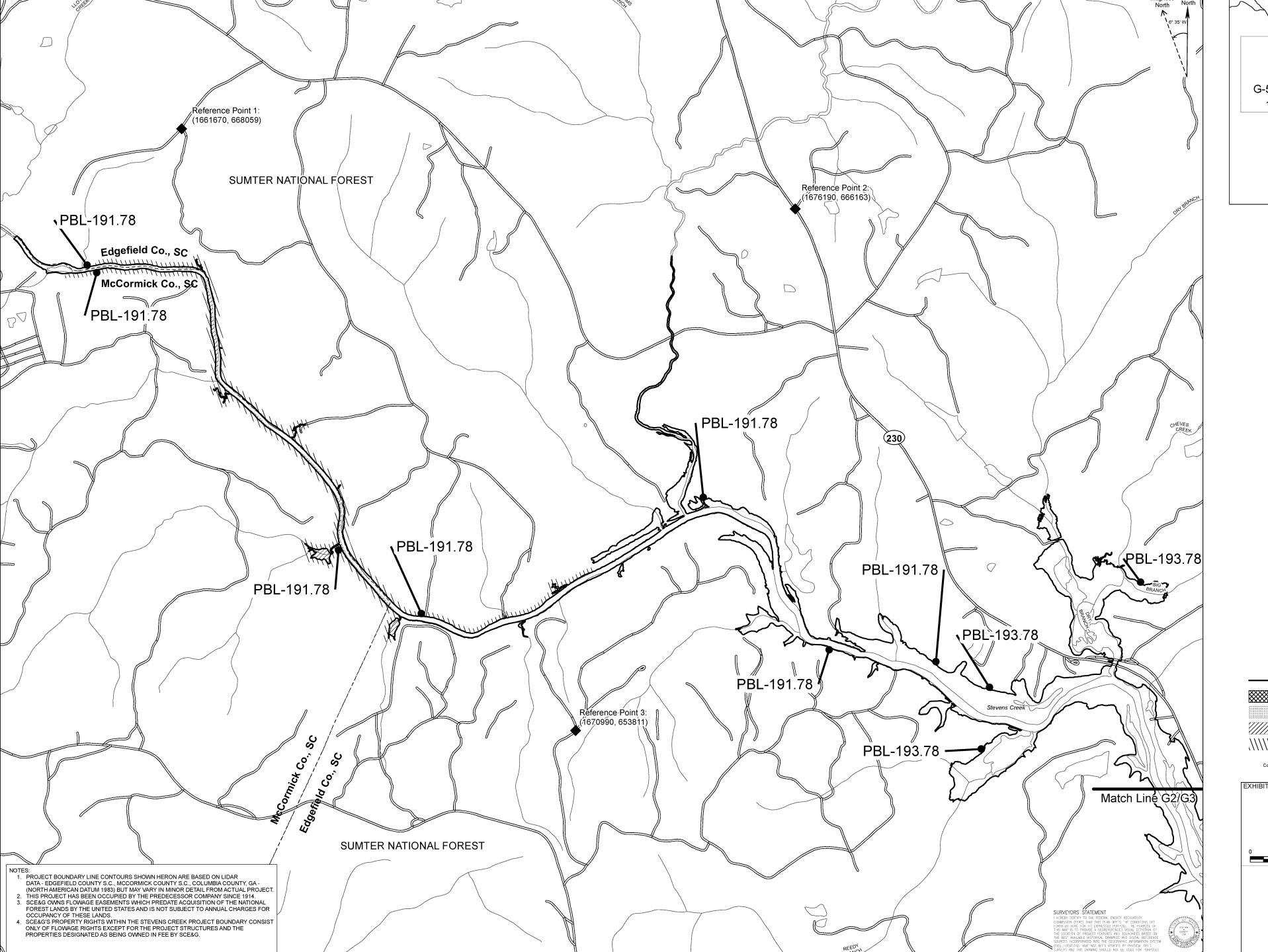
1681310, 636132

1679462, 630686			1680198, 632521			1681310, 636132		
Line	Bearing	Length	Line	Bearing	Length	Line	Bearing	Length
1	S89°46'40" E	56.06'	1	S63°16'19" W	127.60'	1	S69°55'24" E	66.55'
2	S91°58'15" E	10.00'	2	S19°27'10" E	48.42'	2	N64°33'40" E	11.00'
3	S85°46'41" W	134.26'	3	S59°21'59" W	10.41'	3	S72°35'27" E	27.73'
4	S40°24'40" E	88.18'	4	S27°23'37" E	12.89'	4	S64°31'14" E	24.08'
5	N53°44'42" E	190.86'	5	N55°26'20" E	8.44'	5	N15°47'47" E	25.87'
6	N52°29'26" E	20.12'	6	S32°32'02" E	40.74'	6	N54°55'53" W	33.11'
7	N52°29'26" E	410.58'	7	N64°51'13" E	123.65'	7	N7°10'23" W	131.11'
8	S38°32'28" E	157.15'	8	N52°54'16" E	115.30'	8	N45°45'53" W	77.88'
9	N52°54'16" E	115.30'	9	N39°32'33" W	195.11'			
10	N52°54'16" E	203.99'						



NOTES:

1. PROJECT BOUNDARY LINE CONTOURS SHOWN HEREON ARE BASED ON LIDAR DATA - EDGEFIELD COUNTY S.C., MCCORMICK COUNTY S.C., COLUMBIA COUNTY, GA. - (NORTH AMERICAN DATUM 1983) BUT MAY VARY IN MINOR DETAIL FROM ACTUAL PROJECT BOUNDARY.
2. THE PROJECT HAS BEEN OCCUPIED BY THE PREDECESSOR COMPANY SINCE 1914.
3. SCEAG OWNS FLOWAGE EASEMENTS WHICH PREDATE ACQUISITION OF THE NATIONAL FOREST LANDS BY THE UNITED STATES AND IS NOT SUBJECT TO ANNUAL CHARGES FOR OCCUPANCY OF THESE LANDS.
4. SCEAG'S PROPERTY RIGHTS WITHIN THE STEVENS CREEK PROJECT BOUNDARY CONSIST



NOTES:

1. PROJECT BOUNDARY LINE CONTOURS SHOWN HEREON ARE BASED ON LIDAR DATA - EDGEFIELD COUNTY S.C., MCCORMICK COUNTY S.C., COLUMBIA COUNTY GA - (NORTH AMERICAN DATUM 1983) BUT MAY VARY IN MINOR DETAIL FROM ACTUAL PROJECT.
2. THIS PROJECT HAS BEEN OCCUPIED BY THE PREDECESSOR COMPANY SINCE 1914.
3. SCE&G OWNS FLOWAGE EASEMENTS WHICH PREDATE ACQUISITION OF THE NATIONAL FOREST LANDS BY THE UNITED STATES AND IS NOT SUBJECT TO ANNUAL CHARGES FOR OCCUPANCY OF THESE LANDS.
4. SCE&G'S PROPERTY RIGHTS WITHIN THE STEVENS CREEK PROJECT BOUNDARY CONSIST ONLY OF FLOWAGE RIGHTS EXCEPT FOR THE PROJECT STRUCTURES AND THE PROPERTIES DESIGNATED AS BEING OWNED IN FEE BY SCE&G.

SURVEYOR'S STATEMENT

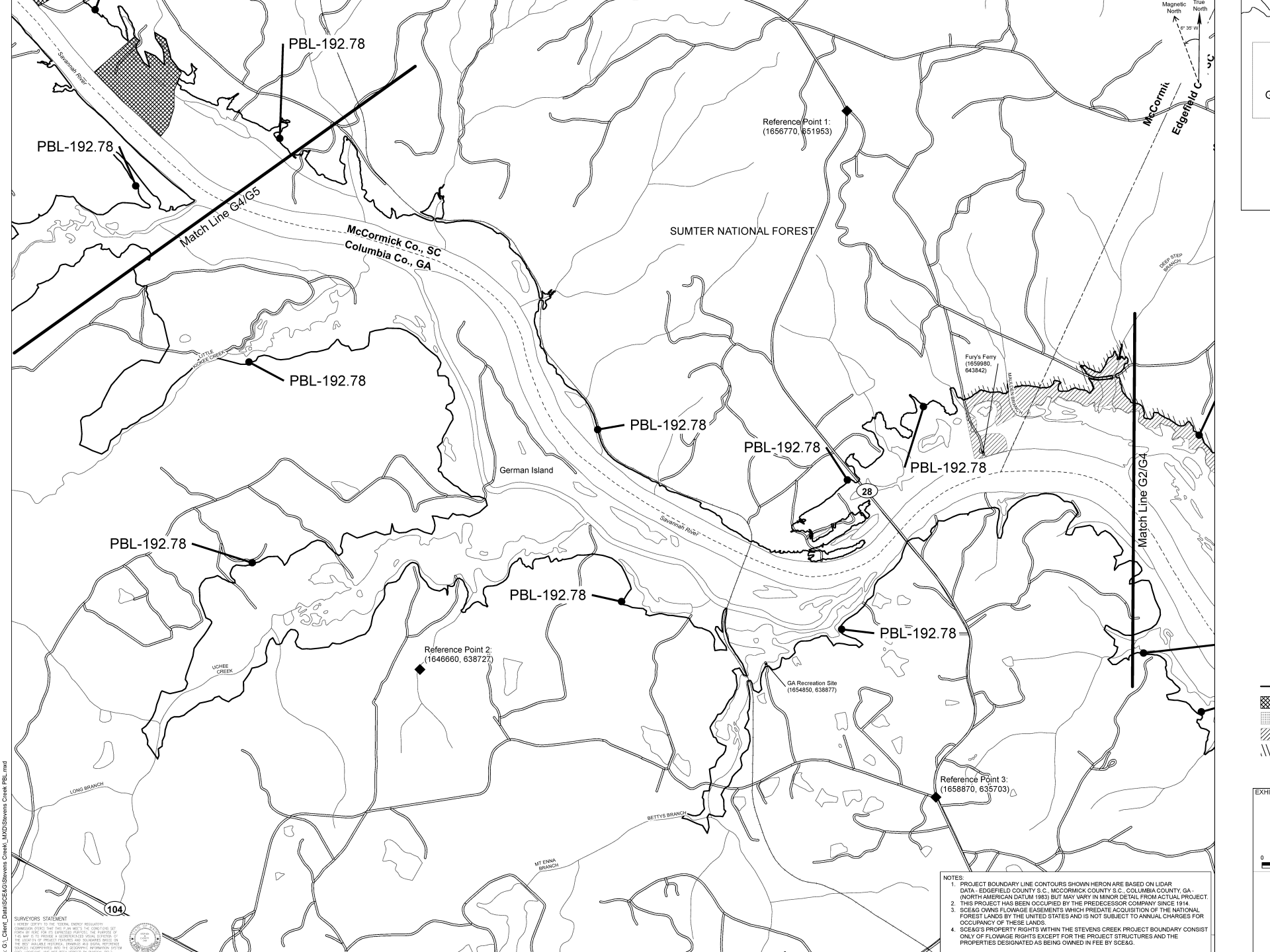
I, JAMES L. LEE, being duly sworn, depose and say that the foregoing is a true and correct copy of the original survey data and that the same were prepared by me or under my direct supervision and that I am a duly licensed Professional Surveyor in the State of South Carolina.

WITNESSED my hand and the seal of my office this 1st day of March, 2023.

JAMES L. LEE

Professional Surveyor

South Carolina



SURVEYORS STATEMENT
I HEREBY CERTIFY TO THE RECORDING AGENCY THAT THE INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I AM A LICENSED SURVEYOR IN THE STATE OF GEORGIA. I HAVE PERSONALLY CONDUCTED THE SURVEY AND HAVE BEEN ASSISTED BY THE FOLLOWING PERSONS: [List of names]. I HAVE BEEN COMPENSATED FOR MY SERVICES BY THE FOLLOWING PARTY: [Name]. I HAVE BEEN ADVISED THAT THE INFORMATION CONTAINED HEREIN IS NOT TO BE USED FOR ANY OTHER PURPOSE THAN THAT FOR WHICH IT WAS PREPARED. I HAVE BEEN ADVISED THAT THE INFORMATION CONTAINED HEREIN IS NOT TO BE USED FOR ANY OTHER PURPOSE THAN THAT FOR WHICH IT WAS PREPARED. I HAVE BEEN ADVISED THAT THE INFORMATION CONTAINED HEREIN IS NOT TO BE USED FOR ANY OTHER PURPOSE THAN THAT FOR WHICH IT WAS PREPARED.

NOTES:
1. PROJECT BOUNDARY LINE CONTOURS SHOWN HEREON ARE BASED ON LIDAR DATA, EDGEFIELD COUNTY S.C., MCCORMICK COUNTY S.C., COLUMBIA COUNTY, GA. (NORTH AMERICAN DATUM 1983) BUT MAY VARY IN MINOR DETAIL FROM ACTUAL PROJECT.
2. THIS PROJECT HAS BEEN OCCUPIED BY THE PREDECESSOR COMPANY SINCE 1914.
3. SCE&G OWNS FLOWAGE EASEMENTS WHICH PREDATE ACQUISITION OF THE NATIONAL FOREST LANDS BY THE UNITED STATES AND IS NOT SUBJECT TO ANNUAL CHARGES FOR OCCUPANCY OF THESE LANDS.
4. SCE&G'S PROPERTY RIGHTS WITHIN THE STEVENS CREEK PROJECT BOUNDARY CONSIST ONLY OF FLOWAGE RIGHTS EXCEPT FOR THE PROJECT STRUCTURES AND THE PROPERTIES DESIGNATED AS BEING OWNED IN FEE BY SCE&G.

Operations

The current license states:

- Reregulate releases from Thurmond Dam
- Minimize pool fluctuations
- Maintain reservoir between 183.0 and 187.5 NGVD

Operating Plan developed to:

- Identify minimum flow
- Procedures for conditions when minimum flow may not be provided

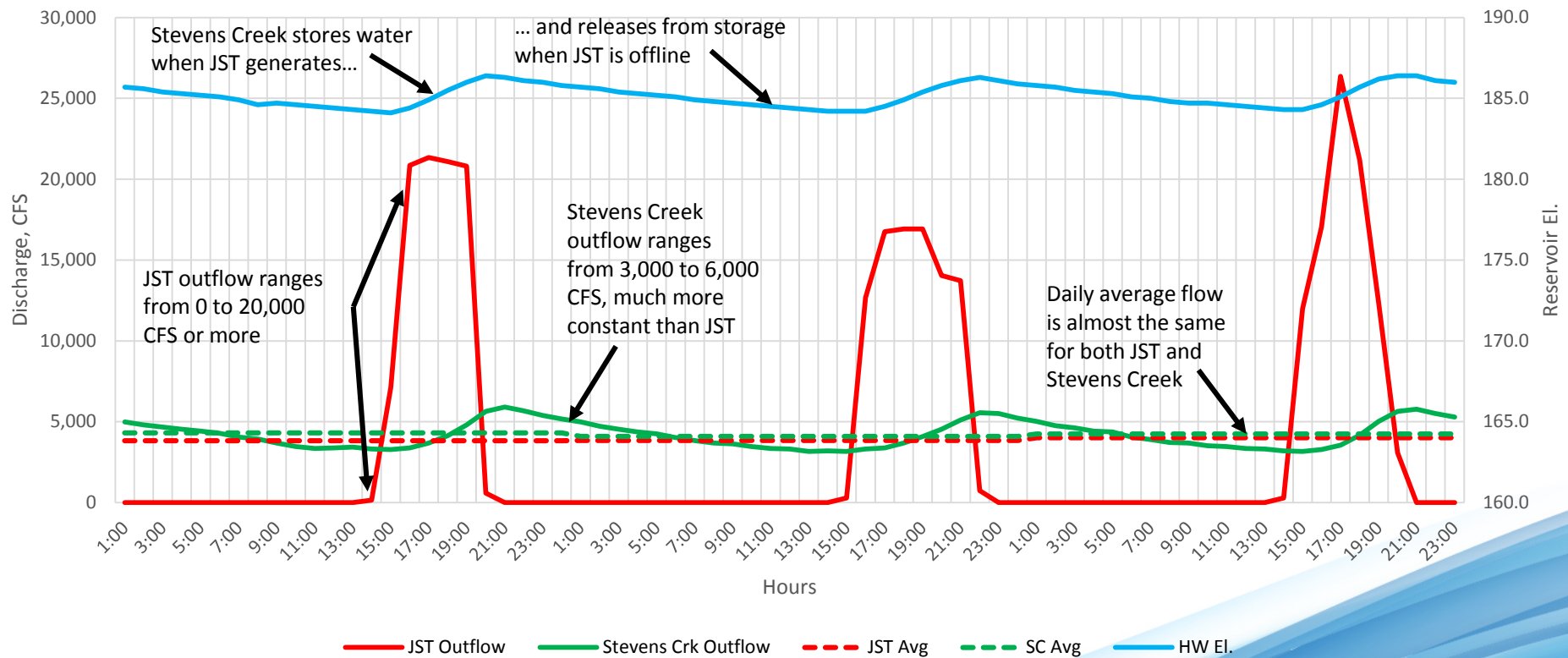
Operations

- Gross storage capacity, ~23,600 acre-feet
- Usable storage at full pool, ~7,800 acre-feet with 4.5 foot drawdown
- Re-regulate river flows below 8,300 cfs
- 8 vertical turbine generators



What does “reregulation” mean?

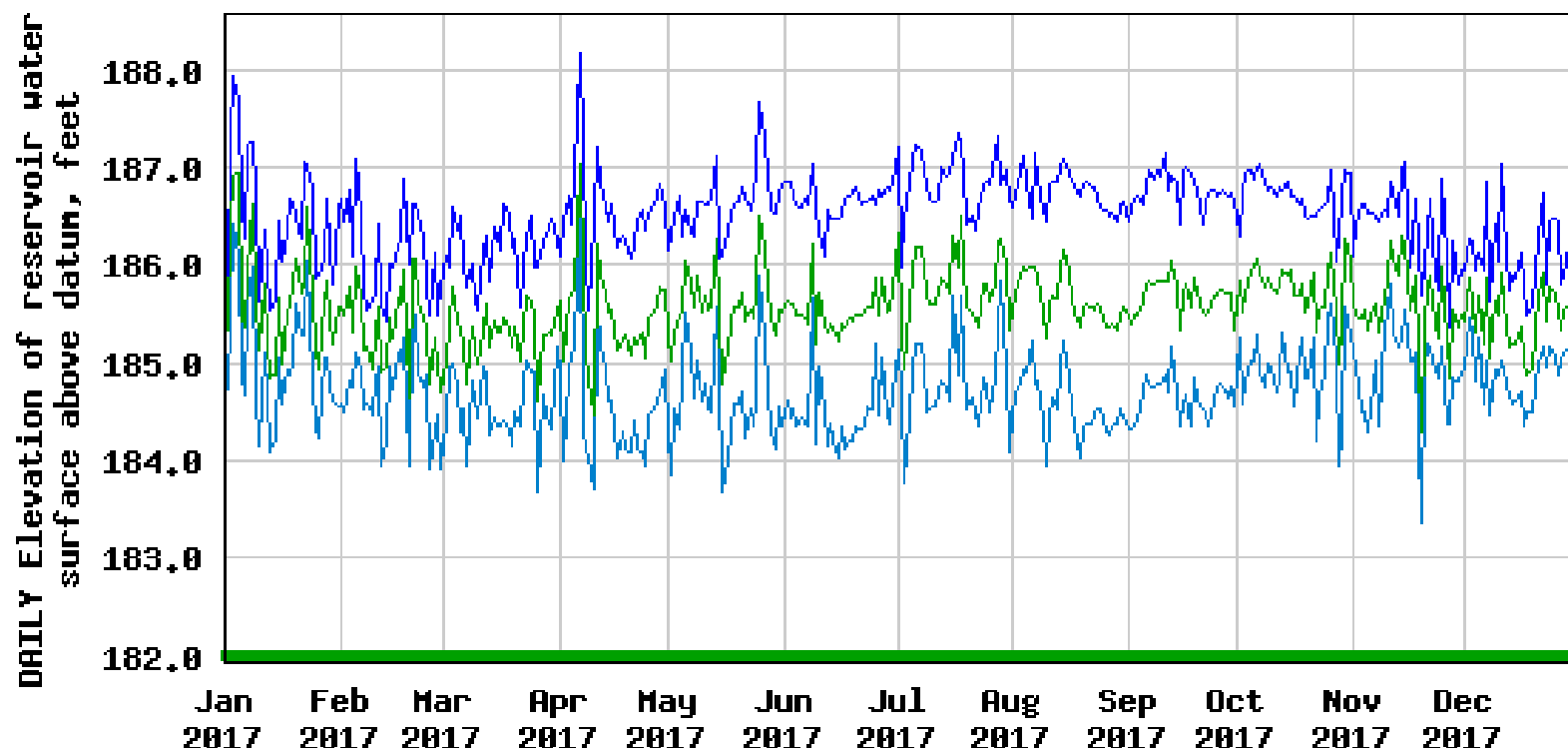
3 Day Re-regulation Example



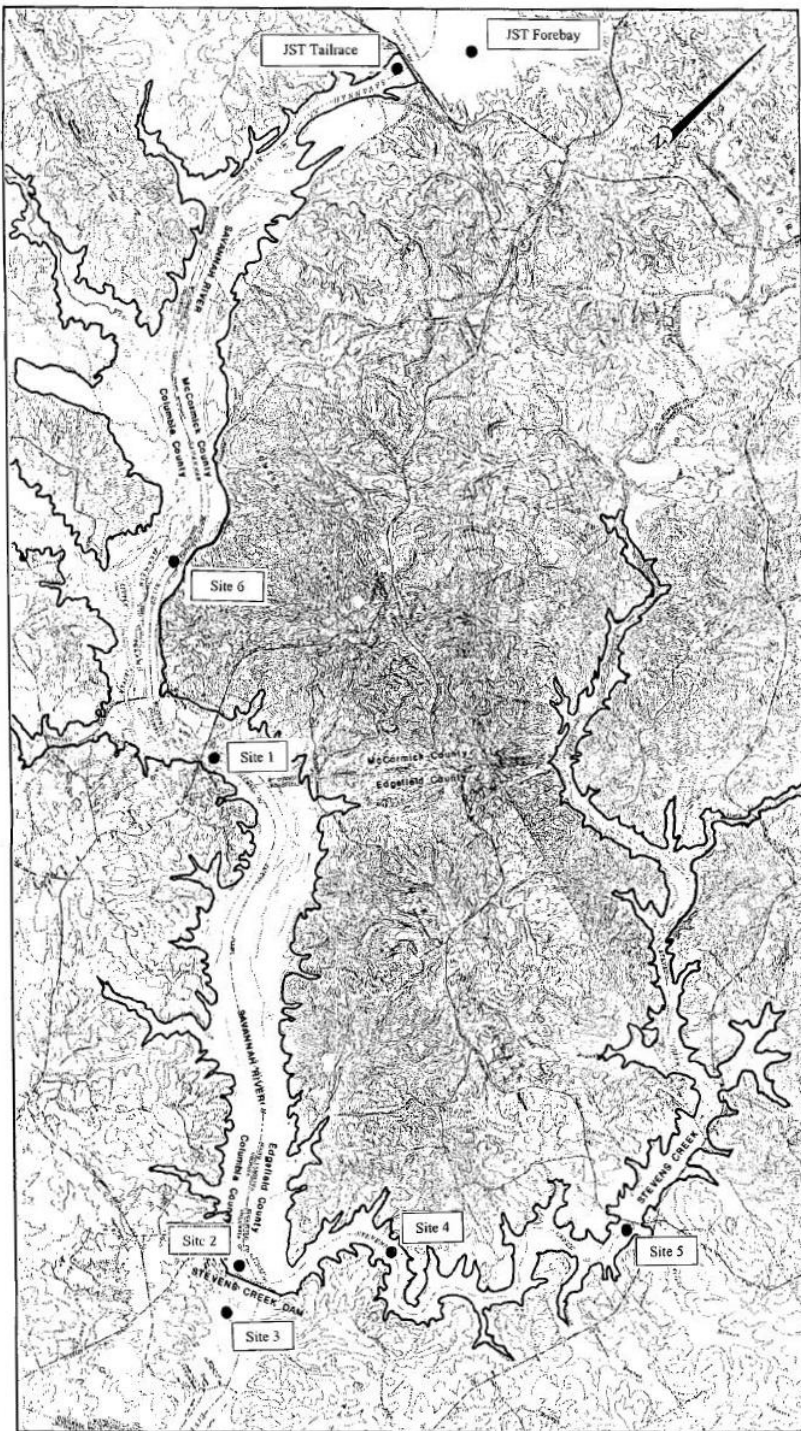
Stevens Creek reservoir



USGS 02196483 SAVANNAH RVR AT STEVENS CREEK DAM NR MORGANA, SC



- Daily maximum elevation of reservoir water surface above datum
- Daily minimum elevation of reservoir water surface above datum
- Daily mean elevation of reservoir water surface above datum
- Period of approved data



Water Quality

Schedule:

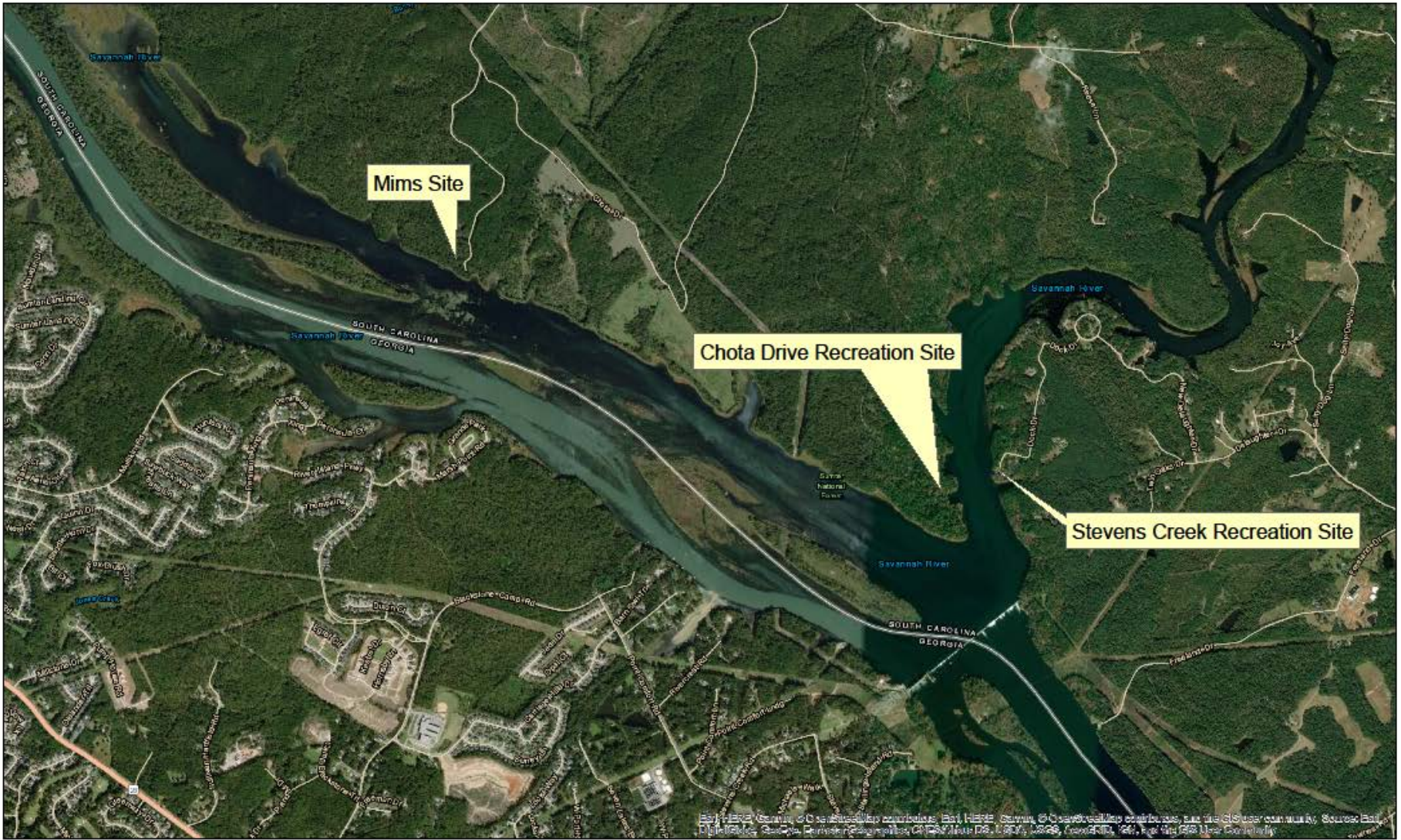
Once a month on 2 consecutive days, once daily for Nov – May;

Twice a month on 2 consecutive days, twice daily for June - Oct

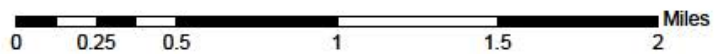
Recreation

- Stevens Creek Site – parking area, boat ramp, picnic tables, restroom
- Chota Drive Site – parking area, paths with bank fishing access, canoe launch area
- Mims Site – currently undeveloped (not supported by USFS Recreation Plan of the Long Cane Ranger District or the Forest Service Sustainable Recreation Strategy)
- Fury's Ferry Site – parking area, boat ramp, picnic tables, primitive camping area
- Riverside Park – on Betty's Branch, parking area fishing pier, boat ramp and dock

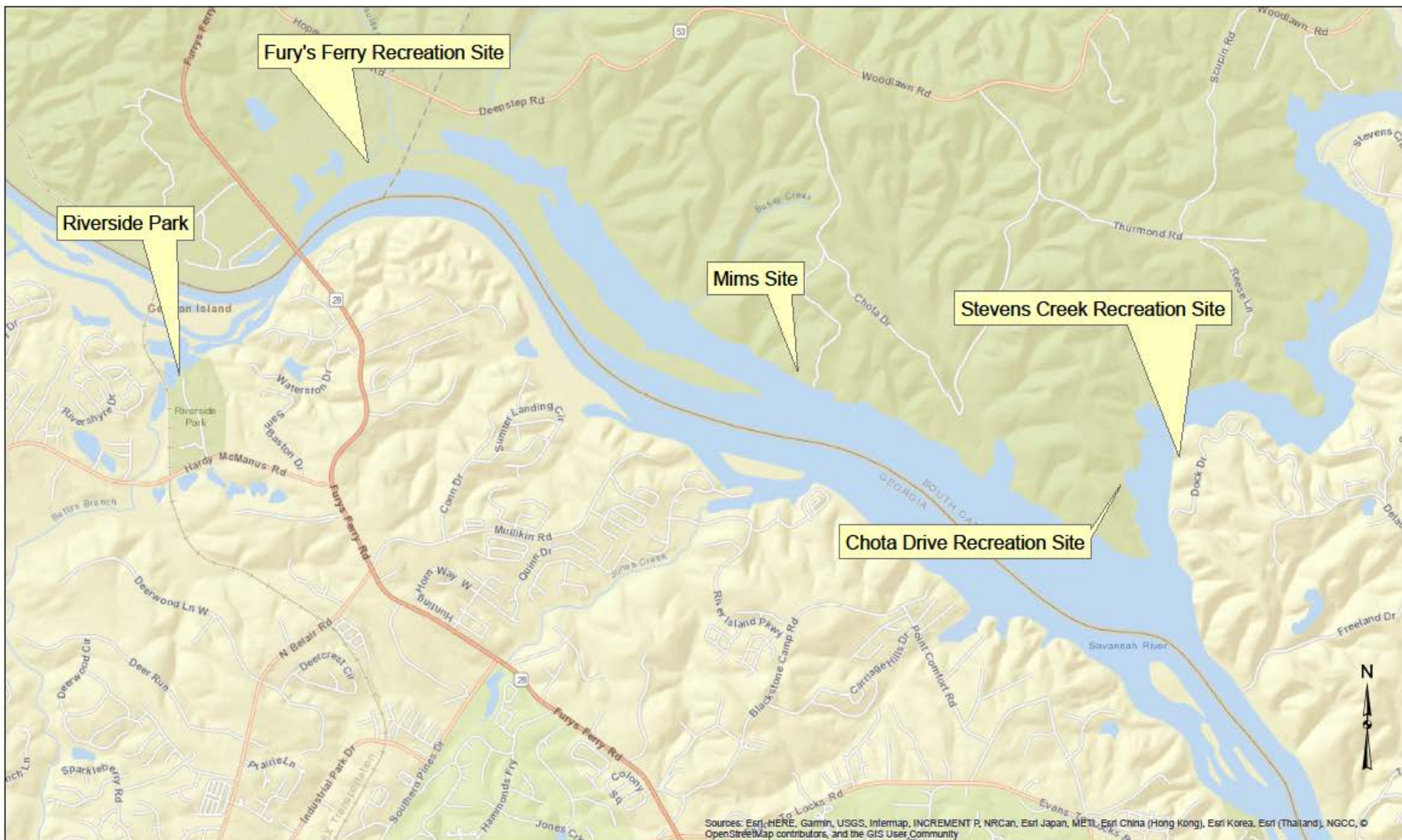
Stevens Creek Recreation Sites - Map 1



A horizontal number line with tick marks at 0, 0.25, 0.5, 1, 1.5, and 2. The word "Miles" is written at the right end of the line.



Stevens Creek Recreation Sites



Shoreline management

- US Army Corps of Engineers permits docks and shoreline maintenance between Thurmond dam and Stevens Creek dam.



Relicensing Process and Milestones

- ▶ Existing FERC license issued in 1995; expires 10/31/2025
- ▶ Required to start relicensing at least 5 years before existing license expires.
- ▶ Complete an enhanced Traditional Licensing Process (TLP) that encourages cooperative resolution of the issues.
- ▶ Develop a Comprehensive Relicensing Settlement Agreement

Big Picture – Relicensing Timeline

- ▶ May-October 2020 – File NOI and PAD with FERC, request approval of TLP
- ▶ Between 30 to 60 days after FERC approval of TLP – hold Joint Agency Meeting
- ▶ Late 2020-2021 – First Year Studies
- ▶ 2022 – Second Year Studies (if necessary)
- ▶ November 2022 – Issue DLA
- ▶ October 2023 – File FLA and Settlement Agreement with FERC

Agency and Stakeholder List

Federal/Tribal: NMFS, USACE, USFWS, USFS, Cherokee Nation

NGO: American Whitewater, Savannah Riverkeeper, Ducks Unlimited

South Carolina

- ▶ SC Dept. of Health and Environmental Control
- ▶ SC DNR
- ▶ Edgefield County Water & Sewer Auth.
- ▶ Edgefield Planning Commission
- ▶ SC Dept. Of Archives and History
- ▶ SC Parks, Rec, Tourism

Georgia

- ▶ Georgia DNR – Environmental Protection Division (401)
- ▶ Georgia DNR
- ▶ City of Augusta
- ▶ Georgia Forestry Commission
- ▶ Georgia Geologic Survey
- ▶ Georgia Historic Preservation Division

Environmental Resource Areas

- ▶ Soils and Geology
- ▶ Water Quality and Quantity
- ▶ Fish and Aquatic Resources
- ▶ Terrestrial Resources and Wetlands
- ▶ Rare, Threatened and Endangered Species
- ▶ Land Use, Aesthetics, and Socioeconomic Resources
- ▶ Recreation Resources
- ▶ Cultural/Tribal

Soils and Geology

- ▶ Existing Available Information
 - ▶ Soil surveys
 - ▶ FERC Environmental Inspections
 - ▶ SCE&G Erosion Surveys
- ▶ Other Available Information/Resource Discussion Points ?

Water Quality and Quantity

- ▶ Existing Available Information
 - ▶ USACE Survey Reports, Water Control Manual, Savannah River Drought Management Plan
 - ▶ Phinizy Center Basin Reports
 - ▶ DO and Temp Monitoring by SCE&G
 - ▶ GDNR 401 Reports
- ▶ Other Available Information/Resource Discussion Points ?

Fish and Aquatic Resources

► Existing Available Information

- SCDNR and GDNR habitat plans for Atlantic and shortnose sturgeon, shad and river herring
- Georgia Bass Club creel data
- Sunfish stocking evaluations at Stevens Creek impoundment
- Previous entrainment studies at Project
- Freshwater mussel surveys contracted by USFWS
- SNSA macro sampling data
- Fishery resource reports prepared for other relicensings (ADD, King Mill, Sibley Mill)
- Diadromous Fish Restoration Plan for Middle Savannah River (NMFS and USFWS)
- 2016-2018 Report of Robust Redhorse Conservation Committee
- ASMFC's Atlantic Sturgeon Stock Assessment Report
- SCDNR Fisheries Study in Stevens Creek Reservoir – final report due spring 2019

► Other Available Information/Resource Discussion Points ?

Terrestrial and Wetland Resources

- ▶ Existing Available Information
 - ▶ USFWS National Wetlands Inventory data
 - ▶ USFS Forest Plan EIS
 - ▶ General species info available from SC/GA DNRs
- ▶ Other Available Information/Resource Discussion Points ?

RT&E Resources

- ▶ Existing Available Information
 - ▶ USFWS IPAC Data
 - ▶ USFS Forest Plan EIS
 - ▶ General species info available from SC/GA DNRs
- ▶ Other Available Information/Resource Discussion Points ?

Land Use, Aesthetics, & Socioeconomic Resources

- ▶ Existing Available Information
 - ▶ USFS Forest Plan EIS
 - ▶ SCORPs
 - ▶ County data
 - ▶ GIS data and aerial photography
- ▶ Other Available Information/Resource Discussion Points ?

Recreation Resources

- ▶ Existing Available Information
 - ▶ Existing Form 80 data
 - ▶ USFS data
 - ▶ Columbia County use data
- ▶ Other Available Information/Resource Discussion Points ?

Cultural/Tribal Resources

- ▶ Existing Available Information
 - ▶ Extensive survey performed at the Project in 1990's
 - ▶ Existing Programmatic Agreement and HPMP
 - ▶ Annual monitoring of known sites
- ▶ Other Available Information/Resource Discussion Points ?

Resource Conservation Groups

- ▶ Fish, Wildlife and Water Quality
- ▶ Lake, Land and Recreation Management
- ▶ Project Operations

*Cultural resources will be evaluated under consultation guidelines as defined by Section 106 of the Historic Preservation Act

Summary of Concerns Noted at November Public Meeting

- ▶ Vegetation management
 - ▶ Potential scheduled drawdown below el. 183'
- ▶ Sedimentation
- ▶ USACE operations
- ▶ Stevens Creek Recreation Site improvements
- ▶ Communications regarding reservoir operations
- ▶ Noise from trash rake operation

Summary of Issues Identified on PAD Questionnaire

Resource Area	Issue
RTE Species	Carolina Heelsplitter (Endangered) – occurs within the Steven's Creek watershed
RTE Species	Brook Floater(ARS) – occurs in medium tributary in Steven's Creek
RTE Species	Relict Trillium (Endangered) – can occur on bluffs near large rivers
Water Resources	Low Flow requirements at Thurmond Dam
Fish & Aquatic	Sedimentation, Water elevation fluctuations, Vegetation, Water Quality (DO in Stevens Creek)
Fish & Aquatic	Robust redhorse, sturgeon, shad, striped bass, native mollusks – spawning migrations, pulsing effects including quantity and timing, water quality, habitat quality, fish passage
Recreation	Portage options

www.stevenscreekrelicense.com



[Home](#) [Contact Us](#) [Process Overview](#) [Project Overview](#) [RCGs and TWCs](#)

[Relicensing Events Calendar](#)

Welcome to the Stevens Creek Relicensing Website

South Carolina Electric & Gas Company (SCE&G) has started their multi-year relicensing process for the Stevens Creek Hydroelectric Project (Project). This is a federally mandated process that is governed by the Federal Energy Regulatory Commission (FERC) and has the ultimate goal of obtaining a new operating license for the Project. This new license will dictate Project operations and associated Project resource management for the next 40 to 50 years.

FERC requires SCE&G to collaborate and consult with stakeholders, including federal



PROJECT UPDATES

October 11, 2018 – Stevens Creek
Public Outreach Meetings: 2:00
p.m. & 6:00 p.m., Savannah
Rapids Pavilion





Google Earth