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December 12, 2018

DEC 18 2018

Mr. Lucas Berresford, Program Manager
State Voluntary Cleanup Program
Division of Site Assessment, Remediation, and Revitalization
Bureau of Land and Waste Management
South Carolina DHEC
2600 Bull Street
Columbia, SC 29201

SITE ASSESSMENT,
REMEDIATION &
REVITALIZATION

RE: DRAFT Conceptual Plan for a Modified Removal Action
SCE&G Fleet Maintenance Site (Congaree River)
Columbia, South Carolina
VCC# 02-4295-RP

Dear Mr. Berresford:

At the stakeholder meeting held at DHEC's office on November 15th, 2018, consensus agreement was reached between stakeholders on a Modified Removal Action (MRA) as the preferred path forward on the Congaree River sediment remediation project. At the conclusion of that meeting, DHEC requested SCE&G to prepare drawings and provide a written summary of the MRA for DHEC approval and continuing stakeholder agreement. Attached hereto are the requested drawings and written summary, presented as the Congaree River Project Conceptual Plan for a Modified Removal Action-December 2018. (Conceptual Plan). SCE&G is prepared to submit a pre-application meeting request to the Army Corps of Engineers once DHEC has approved the Conceptual Plan and it has been accepted by Stakeholders.

SCE&G remains committed to pursue any DHEC preferred final remedy that can be conducted in a safe and effective manner. Thank you for your help to move a remedy forward for the Congaree River sediments. If you have questions, please don't hesitate to give me a call at 803-217-9367.

Sincerely,

Thomas N. Effinger, Director
Corporate Environmental Services
SCANA

cc: G. Cassidy,
G. Kendall Taylor,
Myra Reece,
Veronica Barringer

Congaree River Project

Conceptual Plan for a Modified Removal Action – December 2018

Objective

The Conceptual Plan delineates a revised approach towards completing a Modified Removal Action (MRA) as the preferred final remedy to address impacted sediment, tar-like material (TLM) and any associated effects that may exist within the Congaree River in Columbia, SC. The Conceptual Plan also defines the agreement and understanding reached among the Stakeholders listed on this document. The Stakeholders attended several meetings at DHEC to discuss the Congaree River remediation project and to develop a potential path forward. The result of those meetings and discussions was consensus agreement on the proposed MRA on November 15, 2018:

- To pursue a Modified Removal Action (MRA) consisting of the removal of sediment and tar-like material (TLM) from two separate areas as depicted on the attached figures and estimated in the attached table as a revised approach in an effort to receive a favorable Department of the Army (DA) permit decision for the necessary cofferdam as well as all other required regulatory approvals.

This Conceptual Plan outlines the proposed limits of the MRA based on the attached figures and justification which forms the basis for all future permit applications, engineering studies, design submittals, etc. that will be required in pursuit of the permits and approvals necessary to implement the MRA.

Conceptual Plan MRA – December 2018

The MRA will involve removal of impacted sediments and TLM from targeted areas that are:

- Close to the shoreline and therefore more susceptible to human dermal contact or exposure (e.g. to recreational users such as kayakers, waders/swimmers, fishermen etc.); and
- More concentrated with TLM, or where thicker deposits of TLM are shown to exist.

The attached Figures provide visual representations of the areas targeted for a modified removal action and their location. Figure 1 compares the outline of the previously proposed full-scale removal action (PRAWP - September 2018) to the two areas comprising this proposed MRA. Also note that the volumes shown on Figure 1 for each approach were calculated using a combination of new survey information collected in the spring of 2018 and the sediment coring logs collected from the remedial investigations conducted in 2010 to 2012. Figure 2 shows the MRA areas with a GIS visualization of each sediment boring as a TLM “hot-spot” which depicts the greater thickness of the TLM by a brighter color. Figure 3 provides an updated depiction of the average TLM thickness with estimated volume, using a similar GIS tool in which the TLM representation extends into the adjacent data point. Sediments in the “other areas” that will not be removed consist of either:

- Relatively minor thicknesses of TLM, and/or
- Are now covered by additional sediment resulting from the “superstorm” of 2015; and/or

- Occur far enough away from the shoreline and in deeper water, whereby risk of human dermal contact or exposure is minimal.

The proposed MRA consists of two areas as shown on the attached Figures. Area 1 is approximately 2.6 acres and has a similar footprint to the original full-scale Phase 1 area. Area 2 is approximately 0.5 acres in size.

Table 1 provides a comparison of volume estimates from previously submitted documents. Assuming successful completion of the MRA as proposed in this Conceptual Plan, an estimated 73% of the total TLM is expected to be removed from the Congaree River.

Permitting

Regulatory permits and approvals will be required from the US Army Corps of Engineers (USACE), various sections within SCDHEC, the SC Department of Natural Resources (SCDNR), the Federal Emergency Management Agency (FEMA) local floodplain coordinators, the City of Columbia and other related state and local authorities to conduct the proposed work within and adjacent to the Congaree River.

Although the Stakeholders acknowledge that significant permitting challenges exist and may prove to be insurmountable, it is the mutual desire among the Stakeholders that all appropriate permits and approvals be obtained so that the MRA can be implemented.

Stakeholders attending the DHEC meetings

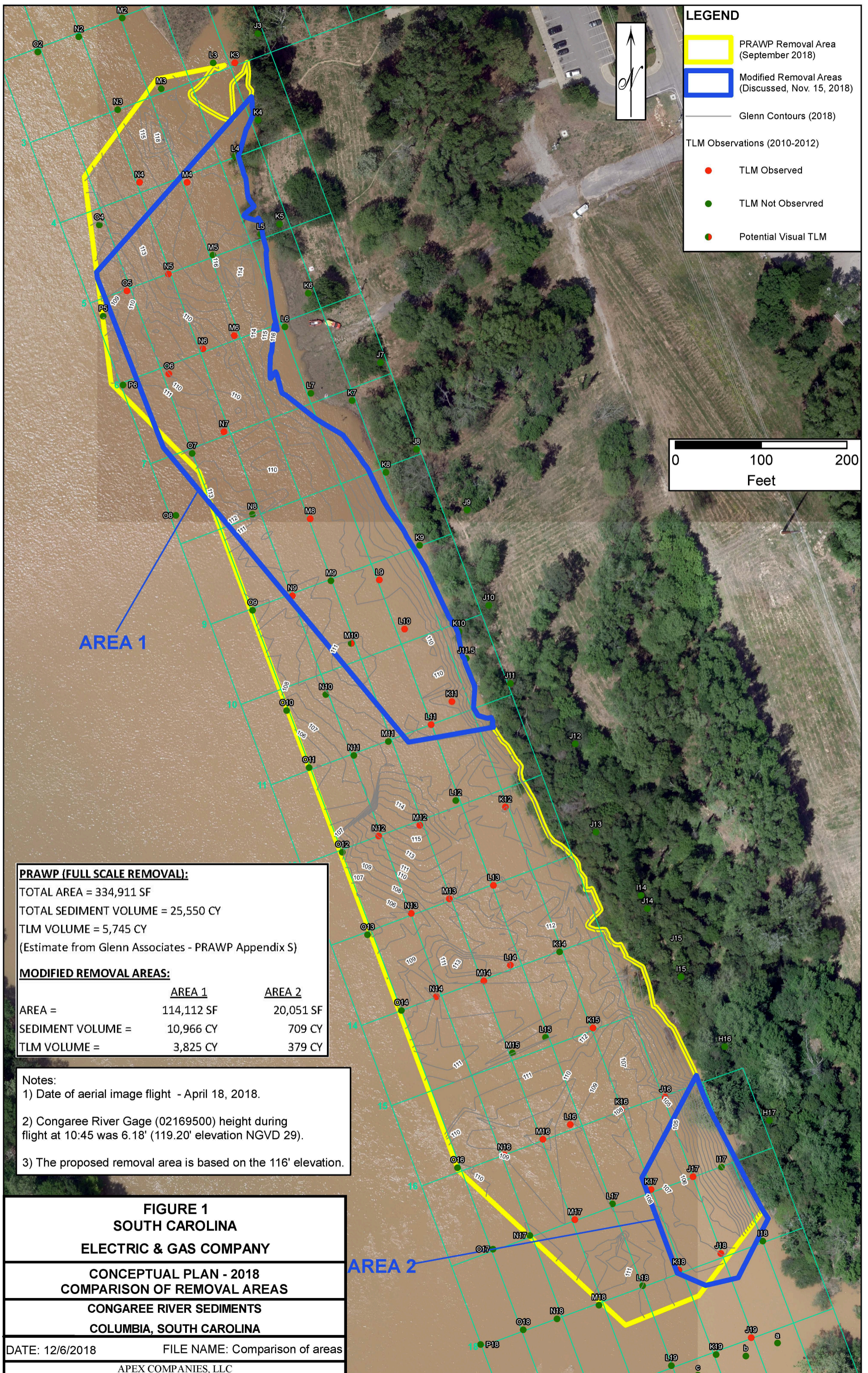
SCANA/SCE&G
SCDHEC
Congaree Riverkeeper
Southern Environmental Law Center
Guignard Associates
City of Columbia
Office of the SC Governor

Attachments

Table 1
3 Figures
Meeting sign-in sheet

Table 1 Estimated Removal Volumes

Estimated by	MTR	Glenn & Associates	Apex	Percent Removal
	EE/CA Sediment Volume Estimate January 2013	Preliminary Removal Action Work Plan (PRAWP) September 2018	Proposed Conceptual Plan - MRA Sediment Volume Estimate December 2018	MRA vs PRAWP
	Original, Full-Area Removal	Full-Area Removal	MRA Areas 1 & 2	
Total Volume of Sediment to be Removed	26,700 CY	25,550 CY	11,675 CY	46%
Total Volume of TLM to be Removed	Not Estimated	5,745 CY	4,204 CY	73%



LEGEND

- PRAWP Removal Area (September 2018)
- Modified Removal Areas (Discussed, Nov. 15, 2018)
- Glenn Contours (2018)
- TLM Observed
- TLM Not Observed
- Potential Visual TLM



PRAWP (FULL SCALE REMOVAL):
 TOTAL AREA = 334,911 SF
 TOTAL SEDIMENT VOLUME = 25,550 CY
 TLM VOLUME = 5,745 CY
 (Estimate from Glenn Associates - PRAWP Appendix S)

MODIFIED REMOVAL AREAS:

	<u>AREA 1</u>	<u>AREA 2</u>
AREA =	114,112 SF	20,051 SF
SEDIMENT VOLUME =	10,966 CY	709 CY
TLM VOLUME =	3,825 CY	379 CY

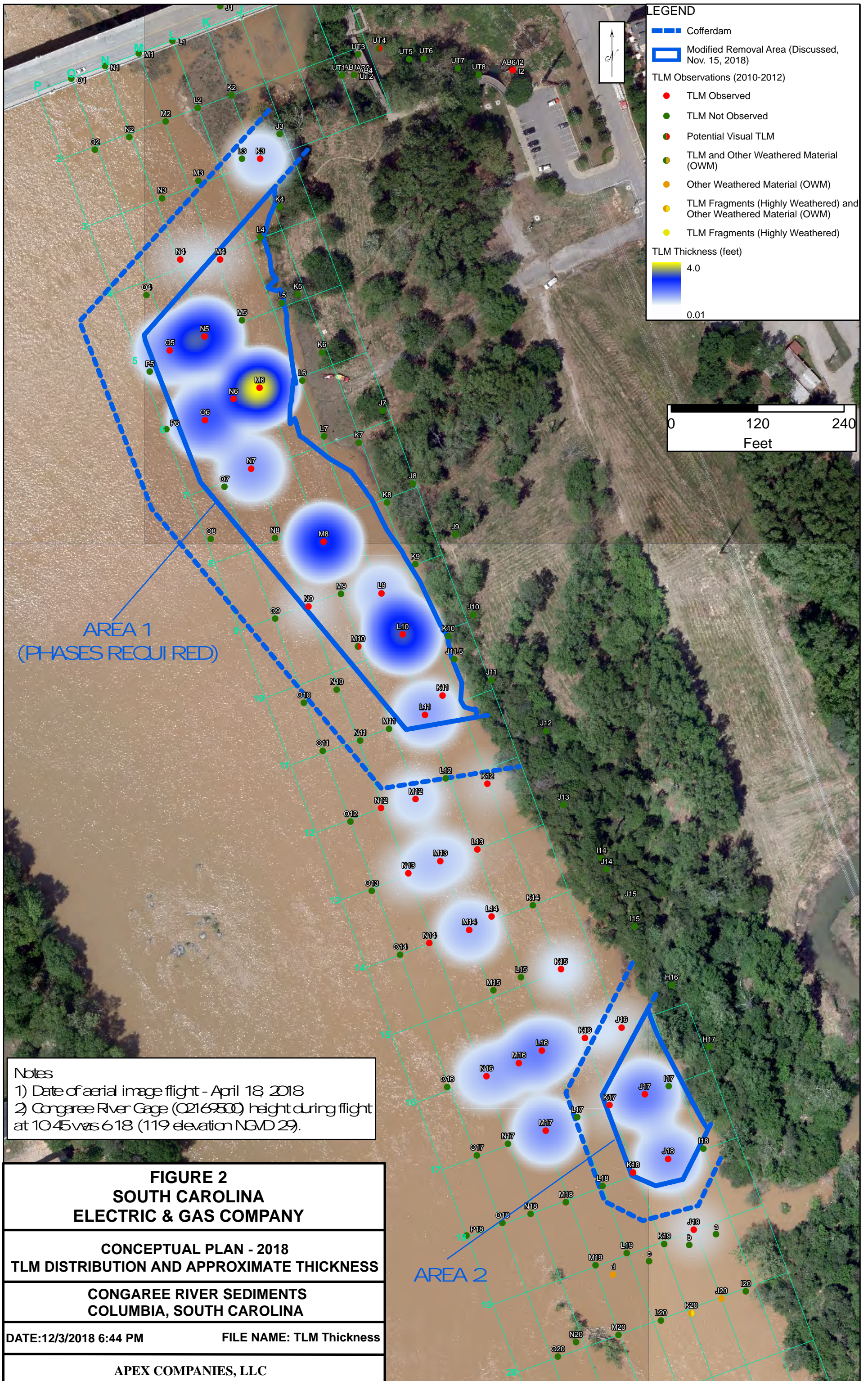
- Notes:
- 1) Date of aerial image flight - April 18, 2018.
 - 2) Congaree River Gage (02169500) height during flight at 10:45 was 6.18' (119.20' elevation NGVD 29).
 - 3) The proposed removal area is based on the 116' elevation.

FIGURE 1
SOUTH CAROLINA
ELECTRIC & GAS COMPANY

CONCEPTUAL PLAN - 2018
COMPARISON OF REMOVAL AREAS
CONGAREE RIVER SEDIMENTS
COLUMBIA, SOUTH CAROLINA

DATE: 12/6/2018 FILE NAME: Comparison of areas

APEX COMPANIES, LLC



LEGEND

- Cofferdam
- Modified Removal Area (Discussed, Nov. 15, 2018)
- TLM Observations (2010-2012)**
- TLM Observed
- TLM Not Observed
- Potential Visual TLM
- TLM and Other Weathered Material (OWM)
- Other Weathered Material (OWM)
- TLM Fragments (Highly Weathered) and Other Weathered Material (OWM)
- TLM Fragments (Highly Weathered)

TLM Thickness (feet)

4.0
0.01



AREA 1
(PHASES REQUI RED)

AREA 2

Notes
 1) Date of aerial image flight - April 18, 2018
 2) Congaree River Gage (02169500) height during flight at 10:45 was 6.18 (119 elevation NGVD 29).

FIGURE 2
SOUTH CAROLINA
ELECTRIC & GAS COMPANY

CONCEPTUAL PLAN - 2018
 TLM DISTRIBUTION AND APPROXIMATE THICKNESS

CONGAREE RIVER SEDIMENTS
 COLUMBIA, SOUTH CAROLINA

DATE: 12/3/2018 6:44 PM FILE NAME: TLM Thickness

APEX COMPANIES, LLC

