



**SCANNED**

526 South Church Street  
Mail Code EC13K  
Charlotte, NC 28202

o 980.373.2663  
c 704.497.3627  
f 000.000.0000

October 15, 2019

Mr. Greg Cassidy, Brownfields Project Manager  
South Carolina Department of Health and Environmental Control  
Division of Site Assessment, Remediation, and Revitalization  
Bureau of Land and Waste Management  
2600 Bull Street  
Columbia, South Carolina 29201

**RECEIVED**

OCT 16 2019

Subject: Quarterly Progress Report – Third Quarter 2019  
Former Bramlette Manufactured Gas Plant  
400 East Bramlette Road  
Greenville, South Carolina  
VCC 16-5857-RP

SITE ASSESSMENT,  
REMEDICATION &  
REVITALIZATION

Dear Mr. Cassidy:

This Quarterly Progress Report has been prepared for the referenced site in accordance with the requirements of the Responsible Party Voluntary Cleanup Contract (VCC 16-5857-RP) between Duke Energy Carolinas (Duke Energy) and the South Carolina Department of Health and Environmental Control (SCDHEC), dated July 29, 2016.

The following sections provide a summary of work performed during the reporting period, testing and sampling results generated during the reporting period, environmental problems experienced during the reporting period and their resolution, and work to be performed during the next reporting period.

**Work Performed During the Reporting Period**

Activities performed during the third quarter (July 1, 2019 through September 30, 2019) included:

July 3, 2019

- Submitted Remedial Investigation Work Plan Addendum (RIWP-A) to SCDHEC.

July 22, 2019

- Submitted SCDHEC Form 3736 (Monitoring Well Application) to SCDHEC for 40 monitoring wells as proposed in the RIWP-A dated July 3, 2019.

July 25, 2019

- Duke Energy requested a temporary Right of Entry (ROE) access agreement with Legacy School Properties, LLC.

August 6, 2019

- Received SCDHEC approval of the 2019 RIWP-A and monitoring well installation permit #MW-12085 (Cassidy to Powell, August 6, 2019).

August 9, 2019

- Waste Management transported four (4) drums of 'MGP Related Soil' to Richland County Landfill for disposal. The waste manifest is attached.

(61)

August 14, 2019

- Duke Energy requested Amendment to CSX Right of Entry Agreement (ROE) No. CSX812078.

September 17, 2019

- Right of Entry access agreement finalized with Legacy School Properties, LLC.

September 19, 2019

- CSX ROE completed and signed by Duke Energy (ROE fully executed on October 8, 2019).

September 30, 2019

- Downloaded water level data from June 11, 2019 through September 30, 2019 from transducers/data loggers in monitoring wells MW-26, MW-27, MW-03BR, MW-20, MW-31S, and MW-31TZ.

#### **Summary of Test and Sampling Results Generated During Reporting Period**

No testing or sampling was conducted during third quarter (July 1, 2019 through September 30, 2019).

#### **Environmental Problems Identified During Reporting Period and Their Resolution**

Environmental conditions encountered during the reporting period include:

- None.

#### **Work to be Performed During the Next Reporting Period (Fourth Quarter 2019)**

Fieldwork planned for the fourth quarter 2019 (October 1, 2019 through December 31, 2019) includes implementation of the scope of work described in the RIWP-A submitted to SCDHEC on July 3, 2019. Portions of the RIWP-A planned for the fourth quarter 2019 include:

- Surface geophysical assessment
- MGP source area soil screening and sampling
- Passive soil gas survey
- Test pits
- Parcel 1 and 2 soil borings
- Begin additional monitoring well installation

Additional tasks planned during the fourth quarter 2019 include:

- Abandon monitoring wells MW-23 and MW-24 in accordance with South Carolina Well Standards R. 61-71 – when weather, ground conditions, and surface water extent in the flood plain permit
- Download and monitor water level transducers/data loggers in monitoring wells and Reedy River stage from a United States Geological Survey (USGS) stream gaging station located downstream of the site

If you have any questions regarding this submittal, please contact me at 980.373.2663 or by email at [Richard.Powell2@duke-energy.com](mailto:Richard.Powell2@duke-energy.com).



Mr. Greg Cassidy  
October 15, 2019  
Page 3 of 3

Sincerely,

*Richard E. Powell*

Richard E. Powell, P.G.  
Senior Environmental Specialist

Attachments:

Figure 1 – Site Layout Map

Figure 2 – MGP Source Area (Parcel 1) Hydrographs (MW-26/MW-27)

Figure 3 – Vaughn Landfill Area (Parcel 3) Hydrographs (MW-03BR/MW-20)

Figure 4 – Reedy River (Swamp Rabbit Trail) Hydrographs (MW-31S/TZ)

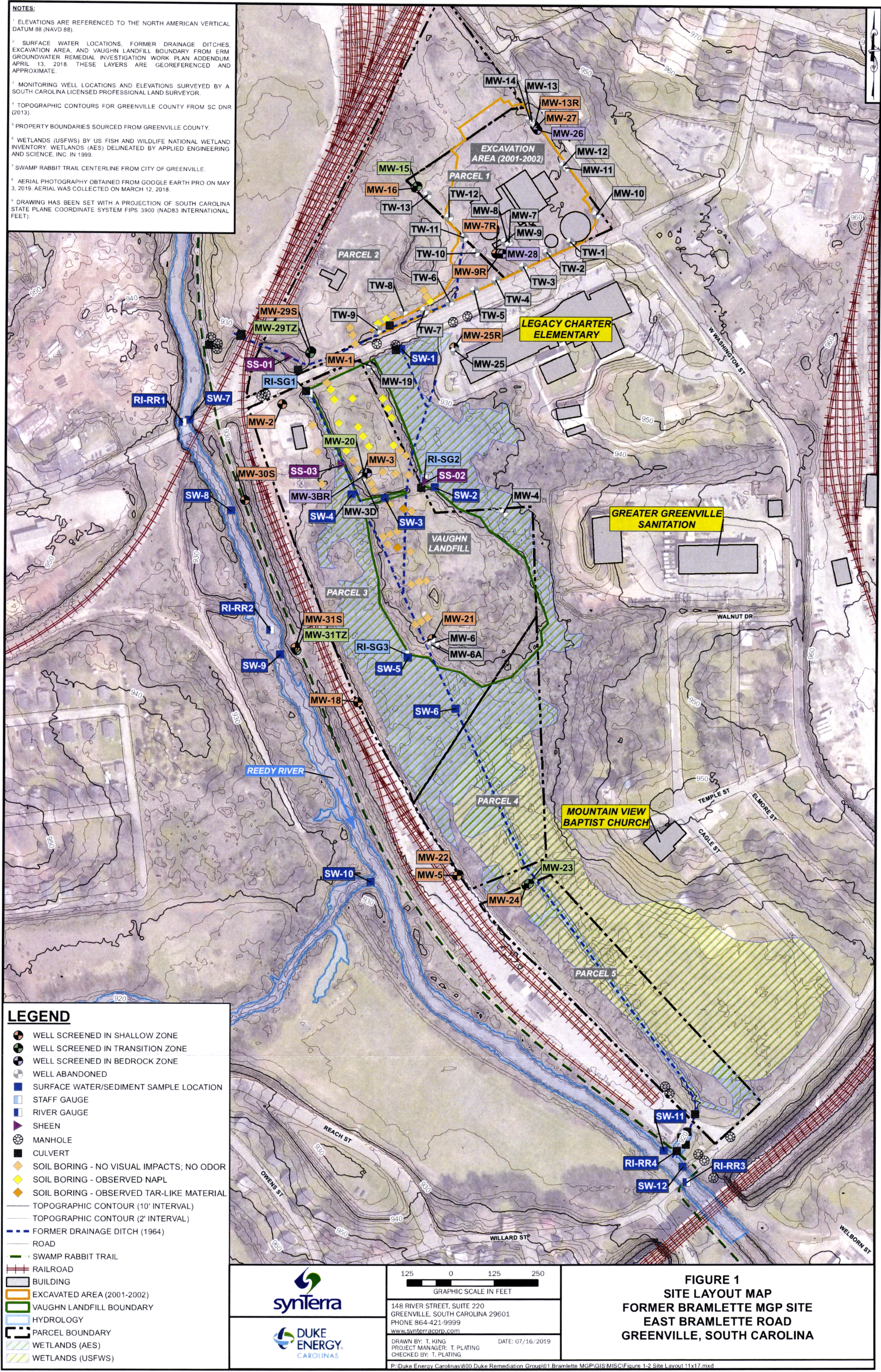
Waste Manifest

cc: Kevin Boland, CSXT  
Daniel Schmitt, Esq., CSXT  
Ty Houck, Greenville County  
Todd Plating, SynTerra



**NOTES:**

- ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM 88 (NAVD 88).
- SURFACE WATER LOCATIONS, FORMER DRAINAGE DITCHES, EXCAVATION AREA, AND VAUGHN LANDFILL BOUNDARY FROM ERM GROUNDWATER REMEDIAL INVESTIGATION WORK PLAN ADDENDUM APRIL 13, 2018. THESE LAYERS ARE GEOREFERENCED AND APPROXIMATE.
- MONITORING WELL LOCATIONS AND ELEVATIONS SURVEYED BY A SOUTH CAROLINA LICENSED PROFESSIONAL LAND SURVEYOR.
- TOPOGRAPHIC CONTOURS FOR GREENVILLE COUNTY FROM SC DNR (2013).
- PROPERTY BOUNDARIES SOURCED FROM GREENVILLE COUNTY.
- WETLANDS (USFWS) BY US FISH AND WILDLIFE NATIONAL WETLAND INVENTORY. WETLANDS (AES) DELINEATED BY APPLIED ENGINEERING AND SCIENCE, INC. IN 1999.
- SWAMP RABBIT TRAIL CENTERLINE FROM CITY OF GREENVILLE.
- AERIAL PHOTOGRAPHY OBTAINED FROM GOOGLE EARTH PRO ON MARCH 3, 2019. AERIAL WAS COLLECTED ON MARCH 12, 2018.
- DRAWING HAS BEEN SET WITH A PROJECTION OF SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM FIPS 3900 (NAD83 INTERNATIONAL FEET).



- LEGEND**
- WELL SCREENED IN SHALLOW ZONE
  - WELL SCREENED IN TRANSITION ZONE
  - WELL SCREENED IN BEDROCK ZONE
  - WELL ABANDONED
  - SURFACE WATER/SEDIMENT SAMPLE LOCATION
  - STAFF GAUGE
  - RIVER GAUGE
  - ▲ SHEEN
  - MANHOLE
  - CULVERT
  - ◆ SOIL BORING - NO VISUAL IMPACTS; NO ODOR
  - ◆ SOIL BORING - OBSERVED NAPL
  - ◆ SOIL BORING - OBSERVED TAR-LIKE MATERIAL
  - TOPOGRAPHIC CONTOUR (10' INTERVAL)
  - TOPOGRAPHIC CONTOUR (2' INTERVAL)
  - - - FORMER DRAINAGE DITCH (1964)
  - ROAD
  - SWAMP RABBIT TRAIL
  - RAILROAD
  - BUILDING
  - EXCAVATED AREA (2001-2002)
  - VAUGHN LANDFILL BOUNDARY
  - HYDROLOGY
  - PARCEL BOUNDARY
  - WETLANDS (AES)
  - WETLANDS (USFWS)

**synterra**

**DUKE ENERGY CAROLINAS**

125 0 125 250  
GRAPHIC SCALE IN FEET

148 RIVER STREET, SUITE 220  
GREENVILLE, SOUTH CAROLINA 29601  
PHONE 864-421-9999  
www.synterra.com

DRAWN BY: T. KING  
PROJECT MANAGER: T. PLATING  
CHECKED BY: T. PLATING

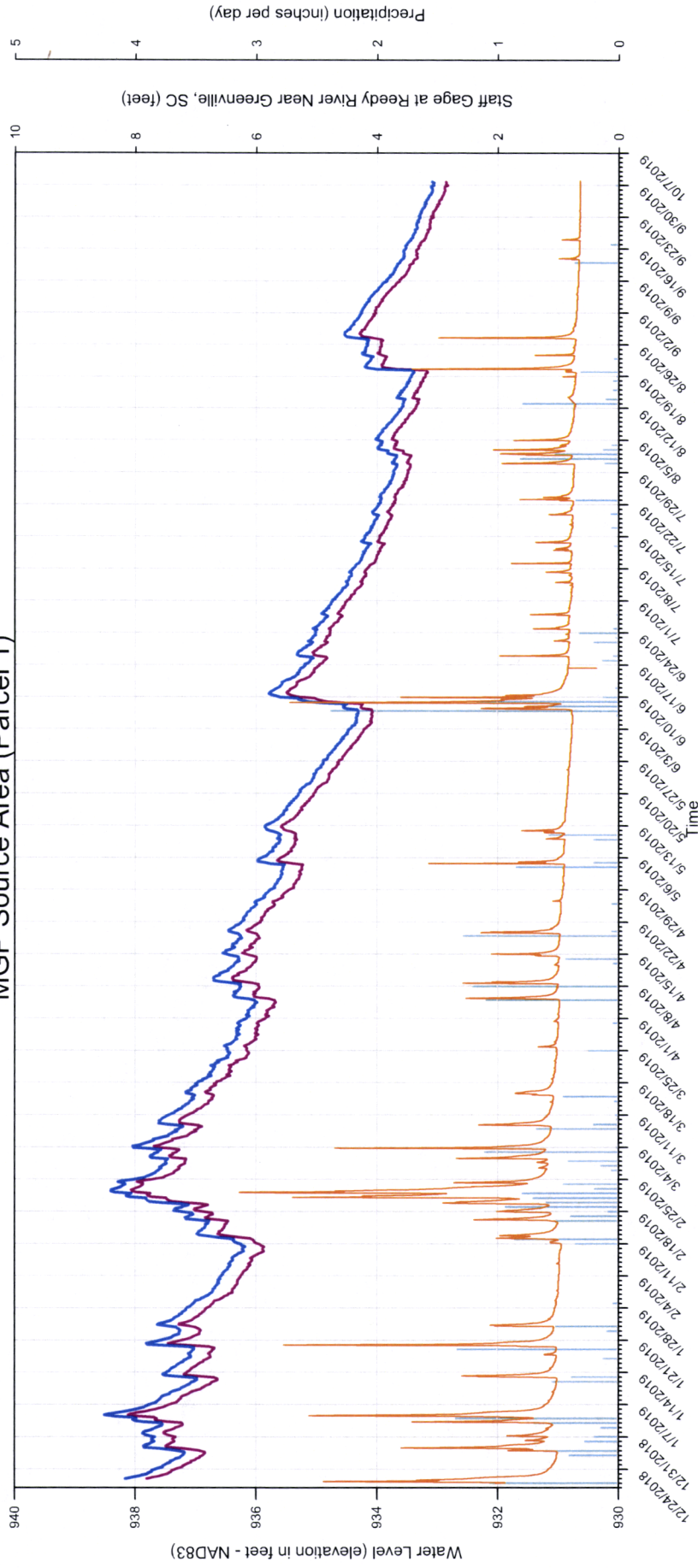
DATE: 07/16/2019

**FIGURE 1**  
**SITE LAYOUT MAP**  
**FORMER BRAMLETTE MGP SITE**  
**EAST BRAMLETTE ROAD**  
**GREENVILLE, SOUTH CAROLINA**

P:\Duke Energy Carolinas\809 Duke Remediation Group\01 Bramlette MGP\GIS\MISC\Figure 1-2 Site Layout 11x17.mxd



# MGP Source Area (Parcel 1)



- Precipitation (inches per day)
- MW-26
- MW-27
- Staff Gage (feet)



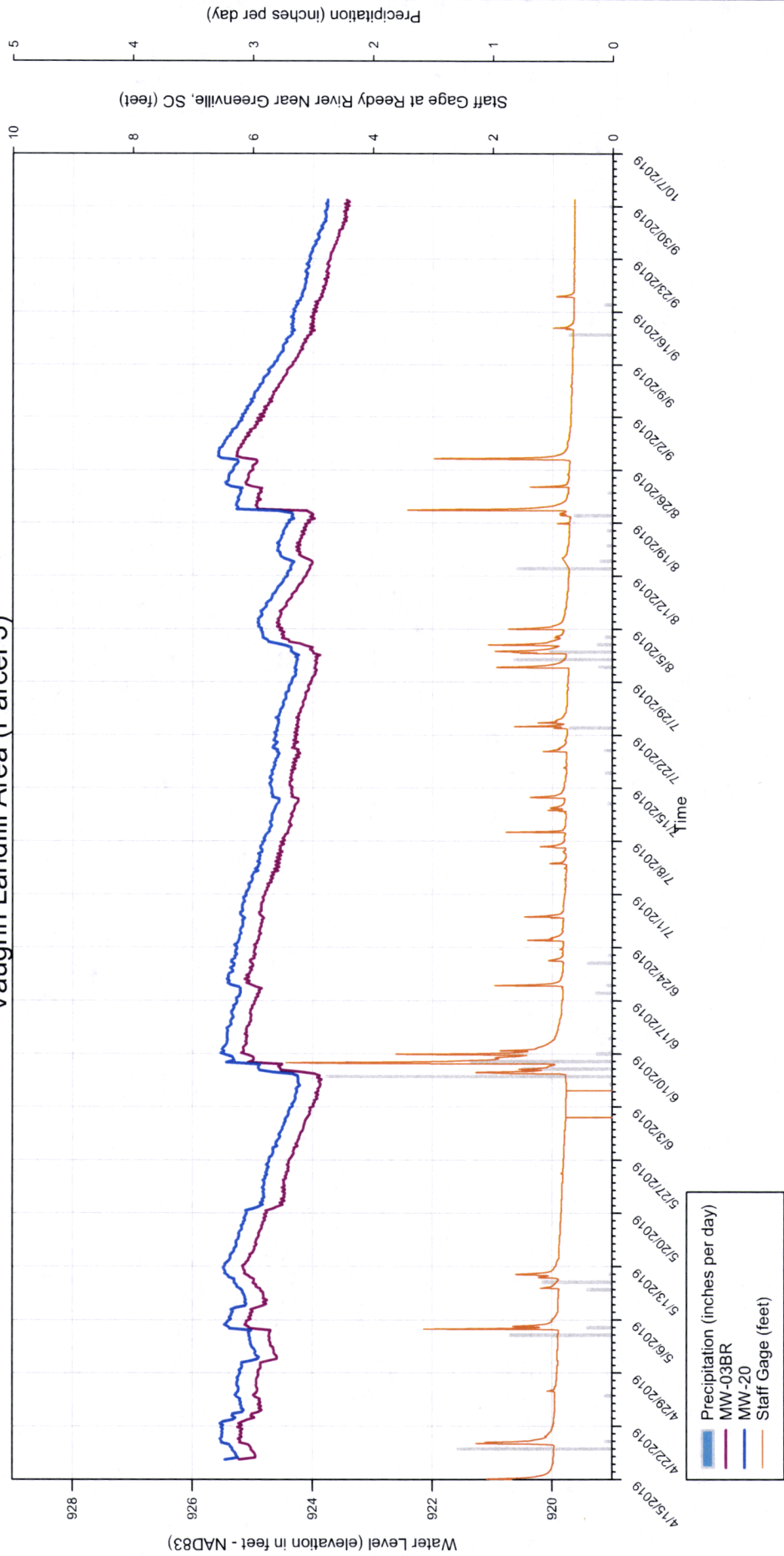
**FIGURE 2**  
**MGP SOURCE AREA (PARCEL 1) HYDROGRAPHS**  
**FORMER BRAMLETTE MGP SITE**  
**DUKE ENERGY CAROLINAS, LLC, GREENVILLE, SC**

148 RIVER STREET, SUITE 220  
 GREENVILLE, SOUTH CAROLINA 29601  
 PHONE 864-421-9999  
 www.synterra.com

DRAWN BY: TRUNG  
 LAYOUT: T. P. KING  
 DATE: OCTOBER 2019

P:\Duke Energy Programs\2019\2019\_Annual\_Audit\2019\_Annual\_Report\Figures

# Vaughn Landfill Area (Parcel 3)

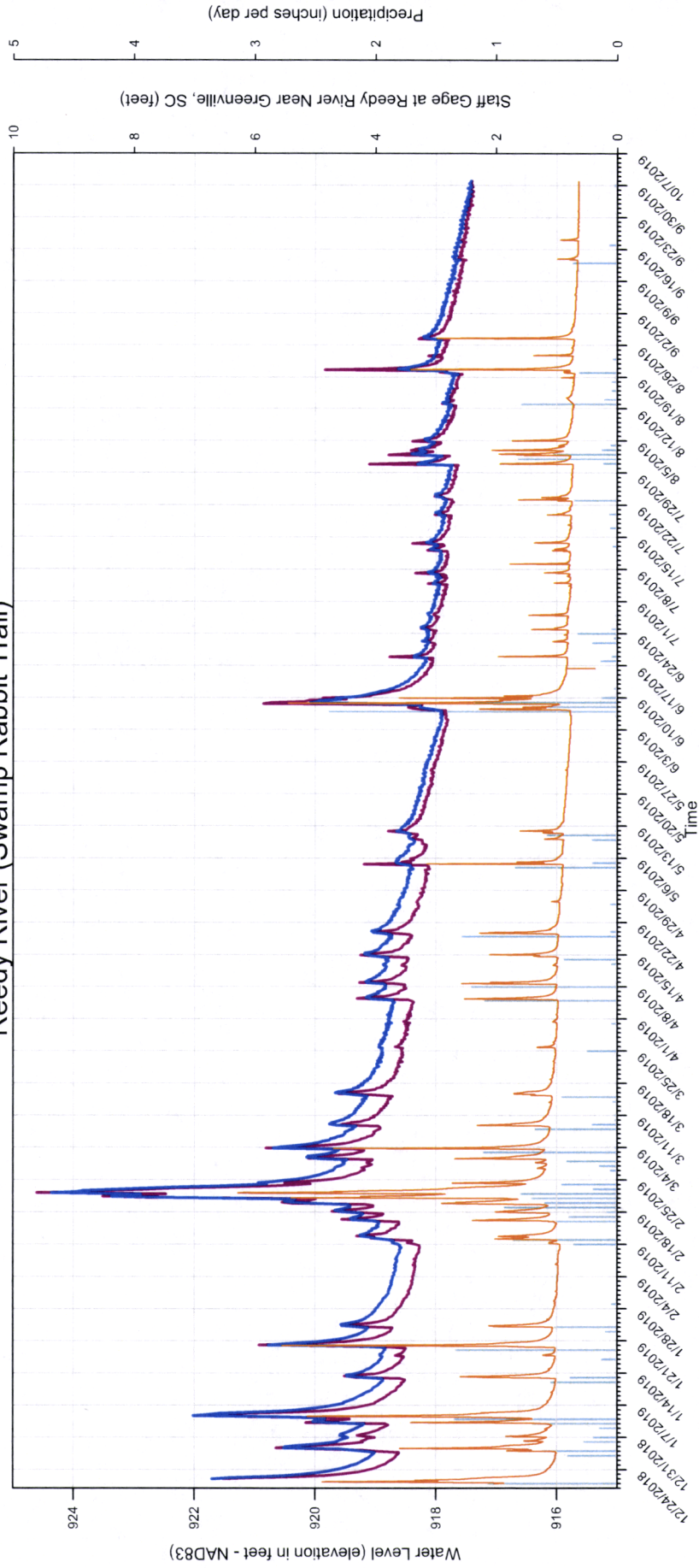


**FIGURE 3**  
**VAUGHN LANDFILL AREA (PARCEL 3) HYDROGRAPHS**  
**FORMER BRAMLETTE MGP SITE**  
**DUKE ENERGY CAROLINAS, LLC, GREENVILLE, SC**

148 RIVER STREET, SUITE 220 GREENVILLE, SOUTH CAROLINA 29601 www.synterra.com	DATE: OCTOBER 2019
PROJECT MANAGER: T. PLATING	LAYOUT:

© Duke Energy Progress, 10/20/19. Asheville, Job: Basin D/W Assessment/Regulatory/MP Monitoring & Support/Project 2019 Annual Report/Figure

# Reedy River (Swamp Rabbit Trail)



Precipitation (inches per day)  
 MW-311Z  
 MW-31S  
 Staff Gage (feet)



**FIGURE 4**  
**REEDY RIVER (SWAMP RABBIT TRAIL) HYDROGRAPHS**  
**FORMER BRAMLETTE MGP SITE**  
**DUKE ENERGY CAROLINAS, LLC, GREENVILLE, SC**

148 RIVER STREET, SUITE 220  
 GREENVILLE, SOUTH CAROLINA 29601  
 PHONE 864-421-9899  
 www.synterracorp.com  
 DRAWN BY: T.M.M. DATE: OCTOBER 2019  
 PROJECT MANAGER: T. PLATING

P:\Data\_Energy\_Programs\325132\_Ashville\_Ash\_Barr\_DW\_Assessment\Figures\Fig4.DWG\_Monitoring & Reporting\Fig 4 2019.mxd - Report Figures



# NON-HAZARDOUS MANIFEST

<b>NON-HAZARDOUS MANIFEST</b>		1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of 1			
3. Generator's Mailing Address: <b>DUKE ENERGY CAROLINAS, LLC 400 EAST BRAMLETT RD. GREENVILLE, SC 29601</b>		Generator's Site Address (if different than mailing): <b>526 S Church St. Mail Code EL13K Charlotte, NC 28202</b>		A. Manifest Number			
4. Generator's Phone <b>980-373-2663</b>				B. State Generator's ID			
5. Transporter 1 Company Name <b>JBR</b>		6. US EPA ID Number		C. State Transporter's ID			
				D. Transporter's Phone			
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
9. Designated Facility Name and Site Address <b>RICHLAND COUNTY LANDFILL, INC. 1047 HIGHWAY CHURCH ROAD ELGIN, SC 29045</b>		10. US EPA ID Number		G. State Facility ID <b>SC0002218600</b>			
				H. State Facility Phone <b>803-744-3373</b>			
GENERATOR	11. Description of Waste Materials		12. Containers		13. Total Quantity	14. Unit Wt./Vol.	1. Misc Comments
	a. <b>MGP RELATED SOILS</b>		No.	Type			
	WM Profile # <b>610464SC</b>		<b>4</b>	<b>DM</b>			
	b.						
	WM Profile #						
	c.						
WM Profile #							
d.							
WM Profile #							
J. Additional Descriptions for Materials Listed Above		K. Disposal Location					
		Cell		Level			
		Grid					
15. Special Handling Instructions and Additional Information <b>COUNTY: GREENVILLE</b>							
Purchase Order #		EMERGENCY CONTACT / PHONE NO.:					
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.							
Printed Name <b>Tom King</b>		Signature "On behalf of" <i>[Signature]</i>			Month <b>08</b>	Day <b>09</b>	Year <b>2019</b>
17. Transporter 1 Acknowledgement of Receipt of Materials		Printed Name <b>Tim Chumbley</b>			Signature <i>[Signature]</i>		
					Month <b>08</b>	Day <b>09</b>	Year <b>2019</b>
18. Transporter 2 Acknowledgement of Receipt of Materials		Printed Name			Signature		
					Month	Day	Year
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed Name		Signature			Month	Day	Year