



Beaufort County School District

Solicitation Number: 20-013
 Date Printed: October 9, 2019
Addendum 1 Date Issued: October 15, 2019
 Procurement Officer: Kaylee Yinger
 Phone: 843-322-2349
 Email: Kaylee.Yinger@beaufort.k12.sc.us

Invitation for Bid (IFB)

DESCRIPTION: **Wastewater Treatment System Operations & Maintenance**
 SUBMIT OFFER BY (Opening Date & Time): **October 29, 2019 @ 2:00 PM**
 QUESTIONS MUST BE RECEIVED BY: **October 22, 2019**
 NUMBER OF COPIES TO BE SUBMITTED: One (1) original

Offers must be submitted in a sealed package. Solicitation Number & Opening Date must appear on package exterior.

SUBMIT YOUR SEALED OFFER TO EITHER OF THE FOLLOWING ADDRESSES:

MAILING ADDRESS:
 Beaufort County School District
 Procurement Office
 P.O. Drawer 309
 Beaufort, SC 29901-0309

PHYSICAL ADDRESS:
 Beaufort County School District
 Procurement Office
 2900 Mink Point Blvd
 Beaufort, SC 29902

CONFERENCE TYPE:	LOCATION:
DATE & TIME:	

AWARDS & AMENDMENTS:
 Award will be posted at the Physical Address stated above on or after October 29, 2019. The award, this solicitation, and any amendments will be posted at the following web address: <https://beaufortschools.net>.

You must submit a signed copy of this form with Your Offer. By submitting a bid or proposal, You agree to be bound by the terms of the Solicitation. You agree to hold Your Offer open for a minimum of ninety (90) calendar days after the Opening Date.

NAME OF OFFEROR: _____ (Full legal name of business submitting the offer) ENTITY TYPE: _____

 AUTHORIZED SIGNATURE (Person signing must be authorized to submit binding offer to enter contract on behalf of Offeror named above)

 PRINTED NAME TITLE

Instructions regarding Offeror's name: Any award issued will be issued to, and the contract will be formed with, the entity identified as the Offeror above. An offer may be submitted by only one legal entity. The entity named as the Offeror must be a single and distinct legal entity. Do not use the name of a branch office or a division of a larger entity if the branch or division is not a separate legal entity, i.e., a separate corporation, partnership, sole proprietorship, etc.

PAGE TWO
(Return Page Two with Your Offer)

HOME OFFICE ADDRESS (Address for offeror's home office/ Principal place of business):	NOTICE ADDRESS (Address to which all procurement and contract related notices should be sent):
PHONE NUMBER:	
EMAIL ADDRESS:	

PAYMENT ADDRESS (Address to which payments will be sent): <input type="checkbox"/> Payment Address Same as Home Office Address <input type="checkbox"/> Payment Address Same as Home Notice Address (check one only)	ORDER ADDRESS (Address to which all purchase orders will be sent): <input type="checkbox"/> Payment Address Same as Home Office Address <input type="checkbox"/> Payment Address Same as Notice Address (check one only)
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ACKNOWLEDGEMENT OF AMENDMENTS:	<u>Amendment Number</u>	<u>Amendment Issue Date</u>
<p>Offerors acknowledges Receipt of amendments by Indicating amendment number and its date of issue</p>		

MINORITY PARTICIPATION- Are you a Minority Business Enterprise: Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, please include a copy of your certification.

Questions and Answers:

1. Is there sample collection and analysis to be done? If so, where can I find a list of parameters and frequency?

Enclosed is the current permit and two of the relevant attachments to the permit. Also providing 2 months of lab analysis reports as examples. Contractor will provide all monitoring (daily), testing, labor and materials in accordance with SCDHEC regulations regarding the operation and maintenance of the treatment plant in accordance with NPDES permit # SCG570043. Reimbursable charges are outlined in the IFB. Previous reports are attached to this addendum.



Notice of Intent (NOI) - SCG570000
NPDES General Permit for Domestic Wastewater Treatment Plant Discharges
(Design flows less than 500,000 gallons per day)

Submission of this Notice of Intent constitutes notice that the party identified in Section I is requesting to be authorized by an NPDES permit issued for Wastewater Treatment Plant discharges in South Carolina at a location(s) identified below. Becoming a permittee obligates such a discharge to comply with all terms and conditions of the issued NPDES General permit. ALL NECESSARY INFORMATION MUST BE INCLUDED WITH THIS FORM. AN ANNUAL OPERATING FEE OF \$100 IS REQUIRED FOR COVERAGE UNDER THIS PERMIT. See Instructions on pages 3.

I. Facility/Owner Information

Name of Facility: James J. Davis Elementary School
 Facility Site Address: 364 Keans Neck Road
 City: Seabrook State: SC County: Beaufort ZIP: 29940
 Owner Name: Beaufort County School District Phone: (843) 322-0792
 Owner Mailing Address: 2950 Mink Blvd
 City: Beaufort State: SC ZIP: 29902 Operator Status: _____

II. Facility Contact Information

Contact Name: Ed Miller Phone: (843) 322-0792
 Contact Title: Director of Maintenance
 Mailing Address: 2950 Mink Blvd
 City: Beaufort State: SC ZIP: 29902

III. Site and Discharge Information

- A. SIC or Activity Codes: Primary: 8211 2nd: _____ 3rd: _____ 4th: _____
- B. Does the facility currently have Wastewater Treatment Plant General Permit coverage? Yes, SCG 570000 No
- C. List any other NPDES or ND Permit numbers for the facility: SC G570043, SC 0027481, ND _____
- D. List the type of discharge (see item F below), the estimated flow (in gallons per day) associated with each discharge, the latitude and longitude (to the nearest 15 seconds), and the name of the receiving water to which the discharge flows.

Discharge Type	Flow (gpd)	Latitude			Longitude			Receiving Waters
		Deg	Min	Sec	Deg	Min	Sec	
Treated Sanitary Wastewater	8,000	32	33	15	80	42	41	Roadside Drainage Ditch

E. Describe each discharge flow path from the point it exits the system to the point it enters the receiving water (attach a separate sheet if more space is needed). Indicate the type of discharge associated with each description.

Roadside Drainage Ditch to Halfmoon Creek to Whale Branch River to Coosaw River

F. (1) Identify which, if any, of the following are used:

- UV disinfection
- Activated sludge system
- Aerated lagoon
- Land application of wastewater
- Facultative lagoon
- Trickling filters or trickling filter processes

(2) Identify which, if any, of the following statements are true:

- This facility is subject to an existing effluent guideline
- The wastewater effluent includes hazardous substances or oils subject to another regulatory program
- The wastewater effluent is mixed with other wastewater or categorical sources per R.61-9.403 and/or process wastewater unless those dischargers are in compliance with a different NPDES permit

G. Locate the facility and each discharge on a U.S. Geological Survey 7½ minute quad sheet. An 8½ x 11 copy of the portion of the map with the facility and each discharge identified should be submitted with this NOI.

H. Describe your sludge disposal method.

- No sludge generated.
- Lagoon or other facility with no routine sludge disposal.
- Disposal at an approved facility, such as a landfill or wastewater treatment facility. Attach letter of approval from the receiving facility.
- Disposal by land application. Indicate ND number, Construction Permit number, or other approval by the Department.

I. For each discharge described in D above where quantitative data exists, please provide concentrations of the following parameters. Indicate whether the data is based on actual sampling results or, if estimated, the source of the estimated value. Data must be representative of the facility's current operation and include all parameters on your current permit (if any). The design flow (monthly average) is based on the wastewater treatment facility design flow. In the spaces provided (or on an attachment), list any other pollutants believed present and their concentrations. If more than one discharge is present, make copies of the table and provide data for each discharge and attach to the NOI.

Type of Discharge: Treated Sanitary Wastewater						
Parameter	Maximum Daily Value		Design Flow (Monthly Average) Value		Number of Samples	Source of Estimate or Actual Data
Flow (MGD)	0.001		0.008		669	Effluent Sampling
Biochemical Oxygen Demand (BOD ₅), mg/l	8.50		3.31 AVG		22	Effluent Sampling
Total Suspended Solids (TSS), mg/l	12.00		4.32 AVG		22	Effluent Sampling
Total Residual Chlorine (TRC), mg/l	1.0		0.11 AVG		22	Effluent Sampling
pH (give high and low in range), S.U.	6.0	7.5	6.68	7.14	669	Effluent Sampling
Dissolved Oxygen (DO) Minimum, mg/l	5.1		5.19 AVG		669	Effluent Sampling
Total Ammonia as Nitrogen (NH ₃ -N), mg/l	N/A		N/A		N/A	N/A
Fecal Coliform (MPN), #/100 ML	17		2.68 AVG		22	Effluent Sampling
E. Coliform (MPN), #/100 ML	2,420		260.45 AVG		26	Effluent Sampling

J. Does the applicant own all properties necessary to allow for direct discharge of wastewaters into the Waters of the State?
 Yes No

If NO, for all private facilities (non-POTW's) have all necessary easements been obtained by the applicant for any conveyances of the discharge not on the property of the permittee and which do not constitute Waters of the South Carolina?

K. Use the space below to bring to the Department's attention any additional information you feel should be considered in the permit decision. Attach additional sheets if necessary.

IV. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

Print Name: Ed Miller Title: Director of Maintenance

Signature: _____ Date: June 27, 2018

General Environmental Laboratories, Inc.

P.O. Box 21866
Hilton Head Island, SC 29925
Phone 843.208.2006
Fax 843.208.2006

121 Mead Road
Suite E
Hardeeville, SC 29927

REPORT OF ANALYSIS

Client:

Report Number: 19-1100
Project Name: JJ DAVIS WWTP
Sample Matrix: WASTEWATER
Sampled By:
Report Date: 09-24-2019

SAMPLE IDENTIFICATION	LAB SAMPLE ID	COLLECTION DATE AND TIME	DATE AND TIME RECEIVED
Effluent Grab	19-1100-1	09/17/19 07:40	09/17/19 12:25
Effluent Composite	19-1100-2	09/17/19 07:40	09/17/19 12:25

Released by: _____



Sheila Patel
Director of Laboratory Operations

S.C. Laboratory Certification: 27553001

General Environmental Laboratories, Inc.

P.O. Box 21866
Hilton Head Island, SC 29925

Phone 843.208.2006
Fax 843.208.2006

121 Mead Road
Suite E
Hardeeville, SC 29927

REPORT OF ANALYSIS

Lab Sample ID: 19-1100-1 Effluent Composite
Date Collected: 09/17/19 07:40

Parameter	Result	Unit	RL	Qualifier	Analyzed	Dil Fac	Method
Biochemical Oxygen Demand	<2.00	mg/L	2.0	B1,U	09/18/19 09:09		SM 5210B
Total Suspended Solids	3.70	mg/L	2.0		09/19/19 11:20		SM 2540D

Lab Sample ID: 19-1100-2 Effluent Grab
Date Collected: 09/17/19 07:40

Parameter	Result	Unit	RL	Qualifier	Analyzed	Dil Fac	Method
Fecal Coliform, 5 Tube MPN	<1.8	count/100 mL	1.8	F1,U	09/17/19 13:00	1	SM 9221-C E

Lab Data Qualifier and Qualifier Description

F1 = The result of the following sample is based on a sample volume of 100mL. This result is not an estimated value.

U = The analyte was analyzed for but not detected in the sample.

B1 = The sample dilutions set-up for the BOD analysis did not meet the oxygen depletion criteria of at least 2 mg/L. The reported result is an estimated value.

General Environmental Laboratories, Inc.

P.O. Box 21866
 Hilton Head Island, SC 29925
 Phone 843.208.2006 Fax 843.208.2006

CHAIN OF CUSTODY RECORD

121 Mead Road, Suite E
 Hardeeville, SC 29927

Project Name: JJ DAVIS
 Project No: 19-1100
 Invoice Address: _____
 Sampled by: _____
 PO No: _____

COMPLIANCE MONITORING: YES NO
 Regulatory Non-Regulatory
 24 hours 48 hours
 5 days 90 days

Preservation Used: 1 = None-Cool $\leq 6^{\circ}\text{C}$; 2 = $\text{Na}_2\text{S}_2\text{O}_5$ Ice; 3 = H_2SO_4 ; 4 = HCl; 5 = HNO_3 ; 6 = Other _____
 Container Type: P = Plastic; G = Glass

Sample ID	Sample Description	Date Sampled	Time Sampled	No. of Containers	Container Type	Grab	PRESERVATIVE				Analysis Required						
							Composite	Wastewater	Groundwater	Drinking Water	BOD	TSS	FECAL COLIFORM				
19-1100-1	EFFLUENT	9-13-19	0340	2	P		X	X			X	X					
19-1100-2	EFFLUENT	9-17-19	0340	1	P	X	X					X					

Composite Start Date/Time: 9-16-19 0346 Composite End Date/Time: 9-17-19 0340 Composite Temp °C: 3.2

1. Relinquished By: _____ Date: 9-19-19 Time: 1225-
 2. Received By: _____ Date: 9/17/19 Time: 12:25

1. Received By: _____
 2. Received by GELI: _____

Comments: _____

Received on Ice (circle) Yes No Ice Pack

Receipt Temp °C: 3.6

INSTRUCTIONS FOR COMPLETING THE SLUDGE DISPOSAL SUPPLEMENT

1. Purpose:

This supplement will be completed as part of the NPDES or ND permit application. These applications and this supplement are submitted with the Preliminary Engineering Report (PER) submittal to DHEC on a new wastewater treatment plant (WWTP) or other sludge treatment facility. Also, this supplement will be used when reapplying for an expiring NPDES or ND permit.

2. Item by Item Instructions:

- I. Existing Facilities: Check the appropriate item. Where required in the item checked, fill in the blank with the appropriate date. Also, when required in the item checked, please include the appropriate sludge disposal report or other required information with the submittal of this supplement. Skip this section if the facility is proposed.
- II. Proposed Facilities: Check the appropriate item. Where required in the item checked, fill in the blank with the appropriate date. Also, when required in the item checked, please include the appropriate sludge disposal report or other required information with the submittal of this supplement. Attach a copy of the PER for the proposed facility. Skip this section if the facility is existing.

3. Office Mechanics:

Staple the Sludge Disposal Supplement to the NPDES or ND permit application. For reapplication of an expiring NPDES or ND permit, send to the Permit and Data Administration Section at the following Address:

Department of Health & Environmental Control
Bureau of Water
2600 Bull Street
Columbia, South Carolina 29201

For a new facility, an expansion of an existing facility, or a commercial sludge or septage disposal site, send the application package with the PER to the appropriate Section Manager at the above address. The application will be processed by the procedures of the Bureau of Water. Also, it will be filed in the Bureau's project file.

SLUDGE DISPOSAL AT ANOTHER WWTP: SLUDGE DISPOSAL REPORT A

REQUIREMENTS FOR A SLUDGE REPORT A

The following information, at a minimum, must be addressed in report format with the supporting documents included in the report.

A. *Sludge Generator*

1. Name.
2. Address.
3. Phone Number.
4. County.
5. NPDES or ND Permit Number (if applicable).
6. Plant capacity (MGD).
7. Amount of sludge generated per year (dry weight tons).
8. Size, description, and location of sludge storage.
9. Amount of stockpiled sludge and sludge age.
10. Description of sludge treatment (sludge must be stabilized)
Process to Significantly Reduce Pathogens (PSRP)*, if any.
Process to Further Reduce Pathogens (PFRP)*, if any.
11. Current method of sludge disposal.
12. Letter of acceptance, including NPDES or ND number, of facility accepting sludge.
13. Amount of sludge transported, reported in dry tons per year.
14. Estimated percent solids and total liquid volume.

* - Provide a short description of PSRP or PFRP from State Regulation 61-9.503.32.

B. *Sludge Analysis Information*

1. TCLP toxicity test with acceptable ignitability, corrosivity, and reactivity lab report or rationale to demonstrate the non-hazardous nature of the sludge. (for existing facilities, a signed statement that no change in sludge constituents has occurred since the last EP or TCLP toxicity test and provide copy of the latest test results.)
2. Name of the certified lab conducting the analysis (if applicable).
address.
phone number.
3. Other compounds required by NPDES or ND permit or present in effluent to treatment plant (if applicable).

Note: You may request a copy of the State Regulation 61-9.503, "State Domestic Sludge Management", and/or the SCDHEC guidance manual, "Beneficial Use of Wastewater Biosolids", dated February, 1996, for use in preparing documentation.

July 1, 1998

SLUDGE DISPOSAL AT A LANDFILL: SLUDGE DISPOSAL REPORT B

REQUIREMENTS FOR A SLUDGE REPORT B

The following information, at a minimum, must be addressed in report format with the supporting documents included in the report.

A. Sludge Generator

1. Name.
2. Address.
3. Phone Number.
4. County.
5. NPDES or ND Permit Number (if applicable).
6. Plant capacity (MGD).
7. Amount of sludge generated per year (dry weight tons).
8. Size, description, and location of sludge storage.
9. Amount of stockpiled sludge and sludge age.
10. Description of sludge treatment (sludge must be stabilized)
Process to Significantly Reduce Pathogens (PSRP)*, if any.
Process to Further Reduce Pathogens (PFRP)*, if any.
11. Current method of sludge disposal.
12. Letter of acceptance from an official of the landfill accepting the sludge for disposal. If the landfill is not SWAIP (special waste) approved, an additional approval letter from SCDHEC, Bureau of Solid and Hazardous Waste Management must be submitted.
13. Amount of sludge transported, reported in dry tons per year.
14. Estimated percent solids and total liquid volume.

* - Provide a short description of PSRP or PFRP from State Regulation 61-9.503.32.

B. Sludge Analysis Information

1. TCLP toxicity test with acceptable ignitability, corrosivity, and reactivity lab report or rationale to demonstrate the non-hazardous nature of the sludge. (for existing facilities, a signed statement that no change in sludge constituents has occurred since the last EP or TCLP toxicity test and provide copy of the latest test results.)
2. Name of the certified lab conducting the analysis (if applicable).
address.
phone number.
3. Other compounds required by NPDES or ND permit or present in effluent to treatment plant (if applicable).

Note: You may request a copy of the State Regulation 61-9.503, "State Domestic Sludge Management", and/or the SCDHEC guidance manual, "Beneficial Use of Wastewater Biosolids", dated February, 1996, for use in preparing documentation.

A minimum of 15% solids is usually required for disposal at most landfills. Contact landfill owner for specific requirements.

July 1, 1998

SLUDGE DISPOSAL BY LAND APPLICATION OR OTHER BENEFICIAL USE: SLUDGE DISPOSAL REPORT C

REQUIREMENTS FOR A SLUDGE REPORT C

The following information, at a minimum, must be addressed in report format with the supporting documents included in the report.

A. Sludge Generator

1. Name.
2. Address.
3. Phone Number.
4. County.
5. NPDES or ND Permit Number (if applicable).
6. Plant capacity (MGD).
7. Amount of sludge generated per year (dry weight tons).
8. Size, description, and location of sludge storage.
9. Amount of stockpiled sludge and sludge age.
10. Description of sludge treatment (sludge must be stabilized)
Process to Significantly Reduce Pathogens (PSRP)*, if any.
Process to Further Reduce Pathogens (PFRP)*, if any.
11. Current method of sludge disposal.
12. Letter of acceptance, including NPDES or ND number, of facility accepting sludge (if applicable).
13. Amount of sludge transported, reported in dry tons per year.
14. Estimated percent solids and total liquid volume.

* - Provide a short description of PSRP or PFRP from State Regulation 61-9.503.32.

B. Sludge Analysis Information

1. TCLP toxicity test with acceptable ignitability, corrosivity, and reactivity lab report or rationale to demonstrate the non-hazardous nature of the sludge. (for existing facilities, a signed statement that no change in sludge constituents has occurred since the last EP or TCLP toxicity test and provide copy of the latest test results.)
2. Name of the certified lab conducting the analysis (if applicable),
address,
phone number.
3. Other compounds required by NPDES or ND permit or present in effluent to treatment plant (if applicable).
4. Method used to determine the reliability of sludge composition.
5. Total organic nitrogen (mg/kg).
6. Total inorganic nitrogen (mg/kg).
7. Ammonia nitrogen (mg/kg)
8. pH
9. Calcium Carbonate Equivalency (only required if the sludge is lime or alkaline treated).
10. Percent total solids.
11. Total arsenic (mg/kg).
12. Total cadmium (mg/kg).
13. Total copper (mg/kg).
14. Total lead (mg/kg)
15. Total mercury (mg/kg).
16. Total molybdenum (mg/kg).
17. Total nickel (mg/kg).
18. Total selenium (mg/kg).
19. Total zinc (mg/kg).

July 1, 1998

C. Application of Sludge (only required if the permittee will be land applying the sludge)

1. Description of method of transport to the proposed land sites.
2. Approximate time of year or schedule for the sludge application and how it relates to crop planting and/or harvesting.
3. Description of application method(s).
4. Name of contractor applying sludge (if applicable).
address.
phone number.
5. Type of equipment used to spread the sludge.

D. Application Site Information (only required if the permittee will be land applying the sludge)

1. General
 - a. Name, address, and signature of landowner.
 - b. Name, address, and party managing the site.
 - c. Approximate schedule for sludge application.
 - d. Previous sludge application amounts covered under Permit # _____.
 - e. Additional soil additives applied on site (if any).
 - f. Description of method to control access to the site.
 - g. Method of odor control.
 - h. Letter from each county stating that the proposed land application activity is consistent with the county solid waste management plan (new and/or expanding projects only).
2. Site Description
Scale Maps (preferably topographic & soils maps) indicating:
 - a. Site location.
 - b. Slope and drainage characteristics including the surrounding land.
 - c. Adjacent land usage and locations of inhabited dwellings.
 - d. All water supply wells within 1000 feet.
 - e. Adjacent surface water bodies.
 - f. Sludge disposal boundaries and buffer zones.
 - g. location of proposed or existing groundwater monitoring wells (if applicable).
 - h. Private roads, public roads, and right-of-ways.
 - i. Certification of site suitability (see the *Beneficial Use of Wastewater Biosolids* manual, appendix E for more information).
3. Site Monitoring Plan
Proposed method of site monitoring indicating:
 - a. Groundwater monitoring well locations and proposed construction details and method of sampling (if applicable).
 - b. Soil monitoring methods and locations.
 - c. Surface water sampling methods and locations (if applicable).
 - d. Proposed parameters and frequency of sampling groundwater, surface water and/or soil.
 - e. Metals testing, if required, due to previous application.
 - f. Monitoring schedule to insure that soil pH will remain in agronomic ranges during the land application project.
4. Sludge Application Plan
 - a. Typical crops to be grown and crop management plan.
 - b. Sludge application rate (tons/acre on a dry weight basis).
 - c. Total organic nitrogen (mg/kg).
 - d. Total inorganic nitrogen (mg/kg).
 - e. Ammonia nitrogen (mg/kg).
 - f. pH
 - g. Calcium Carbonate Equivalency (only required for lime/alkaline treated sludge).
 - h. Percent total solids.

- i. Total arsenic (mg/kg).
- j. Total cadmium (mg/kg).
- k. Total copper (mg/kg).
- l. Total lead (mg/kg).
- m. Total mercury (mg/kg).
- n. Total molybdenum (mg/kg).
- o. Total nickel (mg/kg).
- p. Total selenium (mg/kg).
- q. Total zinc (mg/kg).
- r. Formula and calculations used to determine plant available nitrogen and application rate.
- s. Estimated hydraulic loading rate (if applicable).
- t. Certification of crop management plan (see the *Beneficial Use of Wastewater Biosolids* manual, appendix E for more information).

E. Distribution & Marketing or other Alternative Programs

1. If a Class "A/EQ" material is produced for sale or give away, please attach the product use information sheet that is distributed with the sludge.
2. Include an explanation of how the product is made available to the consumer (truck pick up, bag, bulk, etc).
3. For proposed distribution and marketing programs, explain the anticipated user base and possible product demand for the material compared to projected production.
4. For existing distribution and marketing programs, please summarize the last calendar year's product production versus actual material sold and/or given away.
5. For other alternative beneficial uses (landfill cover, brick making, etc), please attach a detailed PER regarding the proposed use.
6. Include a letter from the county stating that the proposed sludge use activity is consistent with the county solid waste management plan (new and/or expanding projects only).

Note: You may request a copy of the State Regulation 61-9.503, "State Domestic Sludge Management", and/or the SCDHEC guidance manual, "Beneficial Use of Wastewater Biosolids", dated February, 1996, for use in preparing documentation.



Tennessee Dept. of Revenues

NPDES Attachment
Practical Quantitation Limits (PQLs) and EPA-Approved Methods
 (listing based on EPA Form 2C)

EPA-Approved Methods must be used for the analysis of these pollutants or pollutant parameters. "EPA-Approved Methods" refers to the methods that have been approved under 40 CFR part 136 or are required under 40 CFR Chapter I, subchapter N or O. This includes analytical methods for CWA pollutants developed by the EPA, voluntary consensus standards bodies (VCSBs), and other governmental agencies (such as the U.S. Geological Survey), as well as Alternative Test Procedures (ATPs) developed by commercial method developers for nation-wide use. When more than one test procedure is approved under 40 CFR part 136 for the analysis of a pollutant or pollutant parameter, the test procedure used must be sufficiently sensitive as defined at 40 CFR 122.21(e)(3) and 122.44(l)(1)(iv).

"PQL" is the lowest minimum level (reporting limit) derived from the concentration of the lowest calibration standard taking into consideration the weights and/or volumes of the samples and all preparation and analysis steps in the method. If the SCDHEC certified laboratory performing the analysis can achieve a lower PQL than listed below, then the lower PQL must be reported.

"Alternative or Department Approved Methods" may be used for pollutants where there are no methods specified in 40 CFR part 136. The alternative method listed below must be used or a method approved by the Department. Laboratories may combine CWA and SW-846 methodologies for analysis of organic contaminants (e.g. EPA 624 and EPA 8260B). When combining CWA and SW-846 methodology, the most stringent calibration and QC criteria between the two methods must be met and both methods must be reported. The approved method must be reported as listed in 40 CFR 136 along with the "Alternative or Department Approved Methods" listed below (e.g. EPA 624/8260B).

No	Section V Part A	PQL (µg/l)	Sample Type	Alternative or Department Approved Methods
a.	Biochemical oxygen demand	2000	Composite	
b.	Chemical oxygen demand	20,000	Composite	
c.	Total organic carbon	1000	Grab	
d.	Total suspended solids	1000	Composite	
e.	Ammonia	100	Composite	
	Total Kjeldahl Nitrogen (TKN)	100	Composite	
g,h.	Temperature	-	Grab	
i.	pH	-	Grab	
No	Section V Part B	PQL (µg/l)	Sample Type	Alternative or Department Approved Methods
a.	Bromide	2000	Composite	
b.	Chlorine, total residual	50	Grab	
c.	Color (Platinum Cobalt)	5 CU	Grab	
	Color (ADMI)	25 CU	Grab	
d.	Fecal Coliform (MPN)	2/100mL	Grab	
	Fecal Coliform (MF)	1/100mL	Grab	
	Fecal Coliform(Collert 18® ATP MPN)	1/100mL	Grab	
	E. coli	1/100mL	Grab	
e.	Fluoride	100	Composite	
f.	Nitrate-Nitrite	20	Composite	
g.	Nitrogen, total organic	-	-	
h.	Oil & Grease	5 mg/l	Grab	
i.	Phosphorus, total	50	Composite	
j.	Radioactivity	-	-	
j(1)	Alpha, total	-	Composite	
j(2)	Beta, total	-	Composite	
j(3)	Radium, total	10	Composite	
j(4)	Radium 226, total	10	Composite	
k.	Sulfate	5000	Composite	
l.	Sulfide	1000	Grab	
	Sulfide (Un-ionized)	100		
m.	Sulfite	2000	Composite	
n.	Surfactants	50	Grab	
o.	Aluminum, total	50	Composite	
p.	Barium	50	Composite	
q.	Boron	50	Composite	
r.	Cobalt	20	Composite	
s.	Iron	20	Composite	

t.	Magnesium	60	Composite	
u.	Molybdenum	20	Composite	
v.	Manganese	10	Composite	
w.	Tin	10	Composite	
x.	Titanium	60	Composite	
Section V, Part C: Metals, Cyanide and Phenols				
No.		PQL (µg/l)	Sample Type	Alternative or Department Approved Methods
1M	Antimony	5.0	Composite	
2M	Arsenic, total	5.0	Composite	
3M	Beryllium	1.0	Composite	
4M	Cadmium, total	0.1	Composite	
5M	Chromium, total	6.0	Composite	
6M	Copper, total	10	Composite	
7M	Lead	2.0	Composite	
8M	Mercury	0.0005	Grab	EPA 1669 (sampling); EPA 1631E (analysis)
9M	Nickel	10	Composite	
10M	Selenium	5.0	Composite	
11M	Silver, total	5.0	Composite	
12M	Thallium	0.5	Composite	
13M	Zinc, total	10	Composite	
14M	Cyanide, total	10	Grab	
15M	Phenols, Total	5.0	Grab	
Section V, Part C: Dioxin				
No.		PQL (µg/l)	Sample Type	Alternative or Department Approved Methods
	2,3,7,8-Tetrachlorodibenzo-p-dioxin	10 pg/l	Composite	
Section V, Part C: GC/MS Volatile Compounds				
No.		PQL (µg/l)	Sample Type	Alternative or Department Approved Methods
1V	Acrolein	5.0	Grab	
2V	Acrylonitrile	5.0	Grab	
3V	Benzene	2.0	Grab	
4V	Bis (Chloromethyl) Ether	-	Composite	
5V	Bromoform	2.0	Grab	
6V	Carbon Tetrachloride	2.0	Grab	
7V	Chlorobenzene	2.0	Grab	
8V	Chlorodibromomethane	2.0	Grab	
9V	Chloroethane	2.0	Grab	
10V	2-Chloroethyl vinyl ether	5.0	Grab	
11V	Chloroform	2.0	Grab	
12V	Dichlorobromomethane	2.0	Grab	
13V	Dichlorodifluoromethane	2.0	Grab	
14V	1,1-Dichloroethane	2.0	Grab	
15V	1,2-Dichloroethane	2.0	Grab	
16V	1,1-Dichloroethene	2.0	Grab	
17V	1,2-Dichloropropane	2.0	Grab	
18V	1,3-Dichloropropylene	2.0	Grab	
19V	Ethylbenzene	2.0	Grab	
20V	Methyl bromide	2.0	Grab	
21V	Methyl chloride	2.0	Grab	
22V	Methylene chloride	2.0	Grab	
23V	1,1,2,2-Tetrachloroethane	2.0	Grab	
24V	Tetrachloroethylene	2.0	Grab	
25V	Toluene	2.0	Grab	
26V	1,2-trans-dichloroethylene	2.0	Grab	
27V	1,1,1-Trichloroethane	2.0	Grab	
28V	1,1,2-Trichloroethane	2.0	Grab	
29V	Trichloroethylene	2.0	Grab	
30V	Trichlorofluoromethane	2.0	Grab	
31V	Vinyl chloride	2.0	Grab	
Section V, Part C: GC/MS Fraction Acid Compounds				
No.		PQL (µg/l)	Sample Type	Alternative or Department Approved Methods

1A	2-Chlorophenol	10	Composite	
2A	2,4-Dichlorophenol	10	Composite	
3A	2,4-Dimethylphenol	10	Composite	
4A	4,6-Dinitro-o-cresol	10	Composite	
5A	2,4-Dinitrophenol	50	Composite	
6A	2-Nitrophenol	10	Composite	
7A	4-Nitrophenol	10	Composite	
8A	4-Chloro-3-methylphenol (P-Chloro-m-cresol)	10	Composite	
9A	Pentachlorophenol	10	Composite	
10A	Phenol	10	Composite	
11A	2,4,6-Trichlorophenol	10	Composite	
No.	Section V Part C GC/MS Fraction Base-Neutral Compounds	PQL (µg/l)	Sample Type	Alternative or Department Approved Methods
1B	Acenaphthene	10	Composite	
2B	Acenaphthylene	10	Composite	
3B	Anthracene	10	Composite	
4B	Benzidine	100	Composite	
5B	Benzo(a)anthracene	10	Composite	
6B	Benzo(a)pyrene	10	Composite	
7B	3,4-benzofluoranthene	10	Composite	
8B	Benzo(ghi)perylene	10	Composite	
9B	Benzo(k)fluoranthene	10	Composite	
10B	Bis(2-chloroethoxy) methane	10	Composite	
11B	Bis(2-chloroethyl)ether	10	Composite	
12B	Bis(2-Chloro-1-methylethyl)ether (2,2'-Oxybis(2-chloro-propane)) ¹	10	Composite	
13B	Bis(2-ethylhexyl) phthalate	10	Composite	
14B	4-Bromophenyl phenyl ether	10	Composite	
15B	Butyl Benzyl Phthalate	10	Composite	
16B	2-Chloronaphthalene	10	Composite	
17B	4-Chlorophenyl phenyl ether	10	Composite	
No.	Section V Part C GC/MS Fraction Base-Neutral Compounds	PQL (µg/l)	Sample Type	Alternative or Department Approved Methods
18B	Chrysene	10	Composite	
19B	Dibenzo(a,h)anthracene	10	Composite	
20B	1,2-Dichlorobenzene	2.0	Grab	See Footnote 3
21B	1,3-Dichlorobenzene	2.0	Grab	See Footnote 3
22B	1,4-Dichlorobenzene	2.0	Grab	See Footnote 3
23B	3,3'-Dichlorobenzidine	10	Composite	
24B	Diethyl phthalate	10	Composite	
25B	Dimethyl phthalate	10	Composite	
26B	Di-n-butyl phthalate	10	Composite	
27B	2,4-Dinitrotoluene	10	Composite	
28B	2,6-Dinitrotoluene	10	Composite	
29B	Di-n-octyl phthalate	10	Composite	
30B	1,2 Diphenylhydrazine	10	Composite	8270D
31B	Fluoranthene	10	Composite	
32B	Fluorene	10	Composite	
33B	Hexachlorobenzene	10	Composite	
34B	Hexachlorobutadiene	10	Composite	
35B	Hexachlorocyclopentadiene	10	Composite	
36B	Hexachloroethane	10	Composite	
37B	Indeno(1,2,3-c,d)pyrene	10	Composite	
38B	Isophorone	10	Composite	
39B	Naphthalene	10	Composite	
40B	Nitrobenzene	10	Composite	
41B	n-Nitrosodimethylamine	10	Composite	
42B	n-Nitrosodi-n-propylamine	10	Composite	

43B	n-Nitrosodiphenylamine	10	Composite	
44B	Phenanthrene	10	Composite	
45B	Pyrene	10	Composite	
46B	1,2,4-Trichlorobenzene	2.0	Grab	See Footnote 3
No.	Section V, Part C, Pesticides	PQL (µg/l)	Sample Type	Alternative or Department Approved Methods
1P	Aldrin	0.050	Composite	
2P	alpha-BHC	0.050	Composite	
3P	beta-BHC	0.050	Composite	
4P	gamma-BHC	0.050	Composite	
5P	delta-BHC	0.050	Composite	
6P	Chlordane	0.50	Composite	
7P	4,4'-DDT	0.050	Composite	
8P	4,4'-DDE	0.050	Composite	
9P	4,4'-DDD	0.050	Composite	
10P	Dieldrin	0.050	Composite	
11P	Endosulfan I (a-Endosulfan)	0.050	Composite	
12P	Endosulfan II (b-Endosulfan)	0.050	Composite	
13P	Endosulfan sulfate	0.050	Composite	
14P	Endrin	0.050	Composite	
15P	Endrin aldehyde	0.050	Composite	
16P	Heptachlor	0.050	Composite	
17P	Heptachlor Epoxide	0.050	Composite	
18-24P	Polychlorinated Biphenyls (PCBs, Aroclors)	0.50	Composite	
25P	Toxaphene	0.50	Composite	
	Other Parameters	PQL (µg/l)	Sample Type	Alternative or Department Approved Methods
	Acetone	50	Grab	8260B
	Alachlor	0.05	Composite	8081B
	Atrazine	1.0	Composite	8141B
	AOX (Adsorbable Organic Halides)	20		
	n-Butylbenzene	5.0	Grab	8260B
	sec-Butylbenzene	5.0	Grab	8260B
	tert-Butylbenzene	5.0	Grab	8260B
	Carbofuran	10	Composite	8318A
	3-Chlorophenol	10	Composite	8270D
	4-Chlorophenol	10	Composite	8270D
	Chlorophenoxy Herbicide 2,4,5,-TP	5.0	Composite	
	Chlorophenoxy Herbicide 2,4-D	5.0	Composite	
	Chloropyrifos	1.0	Composite	8141B
	Chromium III	10	Composite	Chromium total result minus Chromium VI result
	Chromium VI	10	Grab	
	Other Parameters	PQL (µg/l)	Sample Type	Alternative or Department Approved Methods
	Dalapon	5.0	Composite	8151A
	Demeton, O & S	2.0	Composite	8141B
	Di(2-ethylhexyl) adipate	10	Composite	525.2
	1,2-Dibromo-3-chloropropane (DBCP)	0.02	Grab	8011
	1,1-Dichloroethylene	2.0	Grab	
	1,2-cis-Dichloroethylene	2.0	Grab	8260B
	1,2-trans-Dichloroethylene	2.0	Grab	
	2,3-Dichlorophenol	10	Composite	8270D
	2,5-Dichlorophenol	10	Composite	8270D
	2,6-Dichlorophenol	10	Composite	8270D
	3,4-Dichlorophenol	10	Composite	8270D
	Dilsopropylether	-	Grab	8260B
	Dinoseb	2.0	Composite	8151A
	1,4 Dioxane	2.0	Grab	8260B SIM
	Diquat	1.0	-	549.2
	Dissolved Oxygen	-	Grab	

Endothall	20	-	548.1
Enterococcus	1/100mL	Grab	
Ethylene dibromide (EDB)	0.02	Grab	8011
Formaldehyde	50	Grab	8315
Glyphosate	10	-	547
Guthion (Azinphos-methyl)	1.0	Composite	8141B
2-Hexanone	10	Grab	8260B
Isopropylbenzene	5.0	Grab	8260B
p-Isopropyltoluene	5.0	Grab	8260B
Malathion	1.0	Composite	
2-Methyl-4-Chlorophenol	20	Composite	8270D
3-Methyl-6-Chlorophenol	20	Composite	8270D
4-Methyl-2-Pentanone	10	Grab	8260B
1-Methylnaphthalene	-	Composite	8270D
2-Methylnaphthalene	10	Composite	8270D
Methoxychlor	0.50	Composite	See Footnote 2
Mirex	10	Composite	
Nitrate	20	Composite	
Nitrite	20	Composite	
Nitrosodibutylamine	10	Composite	8270D
Nitrosodimethylamine	10	Composite	8270D
Nitrosopyrrolidine	10	Composite	8270D
Oxamyl	20	Composite	531.1, 8321B
Parathion, methyl & ethyl	0.20	Composite	
Pentachlorobenzene	10	Composite	8270D
Pentachlorethane	2.0	Grab	8260B(DAI)
Picloram	1.0	Composite	8151A
n-Propylbenzene	5.0	Grab	8260B
Salinity	-	Grab	
Simazine	0.10	Composite	8141B
Styrene	2.0	Grab	8260B
1,2,4,5-Tetrachlorobenzene	10	Composite	8270D
2,3,4,6-Tetrachlorophenol	10	Composite	8270D
Tetrahydrofuran	20	Grab	
Tributyltin	-	-	
Trichlorofluoromethane	2.0	Grab	
2,4,5-Trichlorophenol	10	Composite	8270D
1,2,4-Trimethylbenzene	5.0	Grab	8260B
1,3,5-Trimethylbenzene	5.0	Grab	8260B
Turbidity	1 NTU	Grab	
Vinyl Acetate	5.0	Grab	8260B
Xylenes, total	6.0	Grab	8260B

¹ Formerly Bis(2-chloroisopropyl) ether

² EPA 608 may be used for Methoxychlor, however the QC requirements from EPA 608.2 must be met.

³ 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, and 1,2,4-Trichlorobenzene are regulated as volatile compounds. Refer to 40 CFR Part 136.

General Environmental Laboratories, Inc.

P.O. Box 21866
Hilton Head Island, SC 29925
Phone 843.208.2006
Fax 843.208.2006

121 Mead Road
Suite E
Hardeeville, SC 29927

REPORT OF ANALYSIS

Client: BEAUFORT GROUP LLC
ATTN: MR. BOB GROSS
PO BOX 1028
BEAUFORT, SC 29901-1028

Report Number: 19-1100
Project Name: JJ DAVIS WWTP
Sample Matrix: WASTEWATER
Sampled By: BRETT OBERHOLTZER (CLIENT)
Report Date: 09-24-2019

SAMPLE IDENTIFICATION	LAB SAMPLE ID	COLLECTION DATE AND TIME	DATE AND TIME RECEIVED
Effluent Grab	19-1100-1	09/17/19 07:40	09/17/19 12:25
Effluent Composite	19-1100-2	09/17/19 07:40	09/17/19 12:25

Released by: _____



Sheila Patel
Director of Laboratory Operations

S.C. Laboratory Certification: 27553001

General Environmental Laboratories, Inc.

P.O. Box 21866
Hilton Head Island, SC 29925
Phone 843.208.2006
Fax 843.208.2006

121 Mead Road
Suite E
Hardeeville, SC 29927

REPORT OF ANALYSIS

Lab Sample ID: 19-1100-1 Effluent Composite
Date Collected: 09/17/19 07:40

Parameter	Result	Unit	RL	Qualifier	Analyzed	Dil Fac	Method
Biochemical Oxygen Demand	<2.00	mg/L	2.0	B1,U	09/18/19 09:09		SM 5210B
Total Suspended Solids	3.70	mg/L	2.0		09/19/19 11:20		SM 2540D

Lab Sample ID: 19-1100-2 Effluent Grab
Date Collected: 09/17/19 07:40

Parameter	Result	Unit	RL	Qualifier	Analyzed	Dil Fac	Method
Fecal Coliform, 5 Tube MPN	<1.8	count/100 mL	1.8	F1,U	09/17/19 13:00	1	SM 9221-C E

Lab Data Qualifier and Qualifier Description

F1 = The result of the following sample is based on a sample volume of 100mL. This result is not an estimated value.

U = The analyte was analyzed for but not detected in the sample.

B1 = The sample dilutions set-up for the BOD analysis did not meet the oxygen depletion criteria of at least 2 mg/L. The reported result is an estimated value.

General Environmental Laboratories, Inc.

P.O. Box 21866
Hilton Head Island, SC 29925

Phone 843.208.2006 Fax 843.208.2006

CHAIN OF CUSTODY RECORD

121 Mead Road, Suite E
Hardenville, SC 29927

Client: BEAUFORT GROUP
 Report Address: PO BOX 1028
 BEAUFORT, SC 29901-1028
 Attn: BOB GROSS
 Phone No. (843) 982-0606
 Fax No.
 Contact e-mail

Project Name: JJ DAVIS
 Project No: 19-1100
 Invoice Address

Sampled by: *Bret Oberhelzer*
 PO No.

COMPLIANCE MONITORING: YES NO
 Regulatory Non-Regulatory
 24 hours 48 Hours
 5 days Routine

Preservation Used: 1 = None-Cool $\leq 6^{\circ}\text{C}$; 2 = $\text{Na}_2\text{S}_2\text{O}_5$ Ice; 3 = H_2SO_4 ; 4 = HCl; 5 = HNO_3 ; 6 = Other
 Container Type: P = Plastic; G = Glass

Sample ID	Sample Description	Date Sampled	Time Sampled	No. of Containers	Container Type	Grab	PRESERVATIVE				Analysis Required		
							Composite	Wastewater	Groundwater	Drinking Water	Other:	BOD	TSS
19-1100-1	EFFLUENT	9-13-19	0340	2	P		X	X			X	X	
19-1100-2	EFFLUENT	9-17-19	0340	1	P	X	X				X		

Composite Start Date/Time: 9-16-19 0346 Composite End Date/Time: 9-17-19 0340 Composite Temp °C: 3.2

1. Relinquished By: *[Signature]* Date: 9-19-19 Time: 1225

2. Received by GELI: *[Signature]* Date: 9/17/19 Time: 12:25

Comments:

Received on Ice (circle): Yes No Ice Pack

Receipt Temp °C: 3.6