CITY COUNCIL
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City of Hogansville



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400 E Main St Hogansville GA 30230-1196 706-637-8629 | cityofhogansville.org

COUNCIL ACTION FORM

MEETING DATE:	<u>January 4, 202</u>	<u>1</u>	SUBMITTED B	Y: Lisa Kelly			
AGENDA TITLE:	Water Quality	& Biological Testing	2021 – Ware Water Treats	nent Plant Compliance			
CLASSIFICATION (City Attorney must approve all ordinances, resolutions and contracts as to form)							
Ordinance (No.)	Contract	Information Only	Public Hearing			
Resolution (No.)	Ceremonial	X Discussion/Action	Other			
BACKGROUND (Includes description, background, and justification)							
Turnipseed Engineers has provided an agreement for the long-term monitoring of water quality and biological & habitat monitoring. The quoted cost for 2021 is \$21,635. This is a requirement from EPD in keeping with compliance of the waste water treatment plant.							
BACKGROUND (Includes description, background, and justification)							
BUDGETING & FINANCIAL IMPACT (Includes project costs and funding sources)							
Testing and reporting will cost \$21,635 for 2021 and is a budgeted item.							
STAFF RECOMMENDATION (Include possible options for consideration)							
Staff recommends approval of the expenditure in order to meet EPD requirements.							



3772 PLEASATDALE ROAD, SUITE 150, ATLANTA, GEORGIA 30340 TEL: 770-458-7943, FAX: 770-458-2454

December 14, 2020

LONG-TERM MONITORING CITY OF HOGANSVILLE, GEORGIA G. BEN TURNIPSEED ENGINEERS, INC.

WORK PLAN

Water Quality Monitoring

Water quality monitoring will be conducted at four (4) study locations in 2021. A total of three sampling events (two dry and one wet) shall be conducted. A dry event is one with no rainfall for 72 hours prior to sampling. A wet event will be defined as > 0.2 inches of rainfall over previous 24 hours with dry conditions (no rainfall) for 72 hours prior. Rainfall information will be tracked (real-time) using the USGS website (http://water.usgs.gov/realtime.html.) for nearby sites. Stream flow will be measured directly during all dry sampling events at each site. Single, discreet grab samples will be collected for all events. The wet sample will be collected on the rising limb of hydrograph whenever possible.

Samples from all study sites will be analyzed in the laboratory (GEPD-approved) for the following parameters: COD, BOD₅, TSS, alkalinity, hardness, total phosphorus and orthophosphate, TKN, ammonia, and nitrate-nitrite. Additionally, the wet sample will be analyzed for total recoverable metals (Pb, Cu, Zn, and Cd). "Clean metals" sampling techniques will be employed for the wet/metals sampling. In addition to laboratory analyses, the following *in situ* parameters will be measured during sample collection: air and water temperature, dissolved oxygen (DO), % DO, salinity, pH, turbidity, and specific conductance.

In addition to the aforementioned parameters, bacteriological monitoring (fecal coliform and *E. coli*) will be monitored over two sampling periods. During each sampling period, a total of four grab samples will be collected on a regular schedule (irregardless of weather) within a 30-day period. No sample will be collected within 24 hours of another sample. Sampling will be performed between the months of May – October to correspond to state standards. No flow measurements will be made during bacteriological monitoring.

A report will be provided that describes the methods used, results, and discussion of results and potential problem areas, and EPD spreadsheets will be completed and submitted for each year. The report will be provided G. Ben Turnipseed Engineers, Inc. in early 2022.



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Biological and Habitat Monitoring

Biological monitoring will be performed at two study sites (Sites 1 and 2) in 2021-22. The macroinvertebrate and habitat assessments will be conducted under the GEPD's current SOP *Macroinvertebrate Biological Assessment of Wadeable Streams in Georgia* dated March 2007. The fish assessment also will be performed at all three sites under the GDNR's Wildlife Resources Division current protocols for fish sampling, *Part I: Standard Operating Procedures for Conducting Biomonitoring on Fish Communities in Wadeable Streams in Georgia* (GDNR, 2005).

Biological sampling for fish will occur from April through October, and macroinvertebrate sampling will occur from October through February, as per the state protocols. Macroinvertebrate sampling and habitat assessments will be performed by a 2-person crew, and fish sampling will be conducted by a 4-person crew. Benthic macroinvertebrates will be collected via dip netting, and fish will be sampled by electrofishing (backpack or tow boat). Macroinvertebrate samples will be preserved and analyzed in the laboratory; whereas, the fish will be primarily processed (enumerated and identified) in the field and returned to the collection area of the stream. Some voucher fish specimens may be preserved and taken to the laboratory for identification.

Prior to biological surveys, water quality will be assessed via *in situ* measurements of the following parameters: air and water temperature, dissolved oxygen (DO), % DO, salinity, pH, turbidity, and specific conductance. During macroinvertebrate monitoring efforts, the following water chemistry parameters should be sampled: TSS, alkalinity, hardness, ammonia, nitrate-nitrite, TKN, and total phosphate and ortho-phosphorus. Total recoverable metals (cadmium, copper, lead, and zinc) should also be sampled during macroinvertebrate sampling. CCR will be responsible for any water chemistry sampling. The macroinvertebrate sampling will be performed during the final dry water quality monitoring effort.

No reference site is required for biological monitoring because reference data are incorporated in the scoring criteria and/or the state will supply ecoregion reference data to use for comparative purposes.

A report describing the sampling methodology and results will be prepared, including a discussion of any impairment/impacted areas.



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COST BID

Water quality monitoring

Labor

Senior Biologist – 10 hrs. @ \$110/hr. = \$ 1100 Staff Biologist – 68 hrs. @ \$75/hr. = $\frac{$5100}{}$ Total = \$6,200

Laboratory (water chemistry; includes macro. sampling) Total = \$3,955

Other Expenses (mileage, field supplies, copying, etc.) Total = \$895

Total Lump Sum Bid for Water Quality Monitoring in 2021 = \$11,050

Biological and Habitat Monitoring

Labor

Senior Biologist – 20 hrs. @ \$110/hr. = \$2200Staff Biologist – 46 hrs. @ \$75/hr. = \$3450Total = \$5,650

Laboratory (identification and enumeration of macroinvertebrates)

\$350 per site @ 2 sites = \$700

Other Expenses (mileage, field supplies, copying, etc.) Total = \$395

Total Lump Sum Bid for Biological and Habitat Monitoring in 2021-22 = \$6,745

GRAND LUMP SUM BID TOTAL FOR MONITORING IN 2020-21 = \$17,795



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These costs have been calculated and presented as lump sum bids. Additional or out-of-scope work will be billed at an hourly rate of \$110 and \$75 per hour for senior and staff biologist, respectively, plus expenses. No additional or out-of-scope work will be performed unless authorized by the Client.

Your acceptance of this proposal may be indicated by signing in the space provided below. Payment terms are 30 days upon receipt of invoice.

ACCEPTANCE OF PROPOSAL AND AUTHORIZATION TO PROCEED

Authorized By:	
Title:	
Firm Name:	
Date:	

WATERSHED MONITORING PROPOSALS CITY OF [] 2020 MONITORING FOR 2021 REPORTS



			Report with	
			Results and	
Firm	Water Quality	Biological	Data Forms	Total Cost
CCR	\$13,630.00	\$8,005.00	(Included)	\$21,635.00
Corblu	Declined to submit a proposal			
Fox Environmental	\$15,800.00	\$13,000.00	\$3,500.00	\$32,300.00
Nutter & Associates*	\$16,023.00	\$14,722.00	\$5,510.00	\$36,255.00

^{*}Nutter's proposal combines costs when water quality and biological events are planned to coincide. In this table, these combined events are included in the "biological" column.

Lisa Kelly

From: Ken Bryan <kbryan@gbtengineers.com>
Sent: Friday, December 18, 2020 12:18 AM

To: Friday, December 18, 2020 12:18 A

Cc: Shelby Neal

Subject: Hogansville CCR proposal WQ and Bio 2020-12-14

Attachments: Hogansville CCR proposal WQ and Bio 2020-12-14.pdf; 2020-01-02 Long Term

Monitoring Summary of Proposals for x.pdf; 2020-12-07 Long Term Monitoring

Summary of Proposals for x.pdf

Hi, Lisa and Mark. I hope you, your families, and your City personnel are well and are enjoying a happy holiday season.

As previously done for 2020, attached is a CCR proposal for water quality and biological monitoring in 2021 required by the City's watershed protection plan, which is required by the NPDES permit for the City's WPCP. The last page on the attachment is the signature page. If you sign and return a pdf of the last page, we will arrange for CCR to perform the 2021 monitoring.

For comparison of costs, also attached are comparisons of proposals in 2020 for a project with only water quality monitoring and for a project with both water quality and biological monitoring. The client name is redacted. The firms solicited are all known to be well-qualified and experienced for this work, and the proposals all met the same performance standards as your monitoring. CCR proposed the lowest cost for each element of the work. CCR has consistently provided reliable and timely work in many projects.

Please let me know if you have any questions or if I may be of assistance. -Ken



Ken Bryan

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